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*****INTRODUCTION*****

by

Sheldon C. Deal, D.C., N.D.

Chairman

This ninth collection of papers by the members of the International College of Applied Kinesiology is the largest collection the College has had to date and represents 79 papers written by 55 authors. This makes this bound edition over 500 pages in length.

These papers do not represent the official educational material of the I.C.A.K. but rather areas of special interest to the individual members which have been under research. The papers are presented in an unedited form and the authors invite comments for the purpose of edification and critique. The authors' addresses are included in the Table of Contents for this purpose.

Of special interest in this particular collection is an educational article on the Science and Art of Manual Muscle Testing by our Vice-Chairman, David Walther. On the lighter side, some of the older members will especially enjoy Donald McDowall's paper on Philosophies, Observations and Epigrams of Applied Kinesiology.

The papers are being mailed out to the members well in advance of the Detroit meeting. This will allow the membership at large to read the papers in advance which will save time at the annual meeting and hopefully stimulate questions from the members and demonstrations from the individual authors.

We the members of I.C.A.K. can be proud of the amount of research being conducted and feel fortunate to have it at our fingertips in the form of these Collected Papers. It cannot help but be an asset to our health and also to the health of our patients.

The Science and Art of Manual Muscle Testing

by David S. Walther, D.C.

Applied kinesiology has enjoyed a very rapid growth with doctors using the examination system since its introduction to the healing arts in 1964 by George Goodheart, D.C. Dramatic changes can be made in muscle integrity by using the various treatment techniques available to the natural healing arts, bringing the muscular imbalances of the body back to normal balance. The greatest weakness in the system of applied kinesiology — the Achilles heel — is quality muscle testing. A great degree of accuracy and reproducibility is present in manual muscle testing when done by individuals who are knowledgeable in the science of manual muscle testing and proficient in its art. It is obvious that this diagnostic tool is no better than the practitioner performing the muscle test. It can be likened to a time-honored diagnostic tool — the stethoscope — which is no better than what resides between the ear pieces. A stethoscope in the hands of a poorly trained individual who is deficient in both the science and the art of its use will consistently give erroneous information, jeopardizing the patient's health and destroying the user's reputation.

The applied kinesiologist must study and master the science of muscle testing, as well as continue practicing its art. He must also have the ability to evaluate muscle testing being performed by others. This is necessary because many developers of therapeutic techniques have adopted muscle testing as a parameter of evaluation. This adoption is very realistic because of applied kinesiology's ability to work with any therapeutic technique. The ability of the applied kinesiologist to evaluate other operators' muscle testing quality better enables him to evaluate techniques being presented from the lecture platform by enthusiastic new developers. Certainly it is not expected that the developer of any new technique is perpetrating erroneous muscle testing to promote the new technique. It is, however, observed by many advanced and technically proficient applied kinesiologists that much erroneous muscle testing is being done by those who have not been adequately trained or have not practiced manual muscle testing.

The errors in muscle testing, by both practitioners and enthusiastic promoters of new techniques, are nearly always made on a subconscious level and repeated time after time. As we proceed with the discussion of the science and art of manual muscle testing, we will observe many very slight changes in muscle testing which dramatically change the results of the test. These subtle changes are frequently done on the subconscious level.

One of the first considerations which must be made in muscle testing is the mental attitude of the doctor. The correct attitude is to accurately test the muscle without concern for the outcome of the procedure. Keeping this thought in mind, it becomes obvious that when we are trying to prove to a patient that he has a specific condition, our enthusiasm for that "educational information" being imparted to the patient may, on a subconscious level, alter the results of the test. The doctor may change his testing procedures slightly by moving his body, directing the force in a different manner, or any of the other multitude of parameter changes we will discuss. The doctor's mental attitude also enters into the testing procedure when he believes very strongly in some specific "principle," such as white sugar being bad for everyone. Under these circumstances, the muscle test findings will always indi-

cate that there is a weakening of the muscle when the tested individual ingests white sugar. In reality, white sugar is not detrimental to everyone. The trained and artfully proficient muscle tester will be able to observe the testing error or change of parameter which is causing the erroneous information to be derived from the muscle test. If white sugar weakens every individual who is tested, the operator who is doing the testing needs to re-evaluate his procedures. This type of muscle testing error is frequently called "operator prejudice" which adequately describes the reason for the error. Prejudice in this case indicates pre-judgement without regard for the outcome of the test. An excellent indication that operator prejudice is not present is when the examiner is periodically surprised at the outcome of the testing procedure. Constantly finding the muscle to be weak or strong as expected is another indication to re-evaluate the proficiency of the muscle testing procedures. The examiner who maintains the attitude that he is asking a question of the nerve system (or any other energy pattern) when he is testing a muscle, and is interested only in accurate information from that testing procedure, is in a position to consistently obtain accurate information.

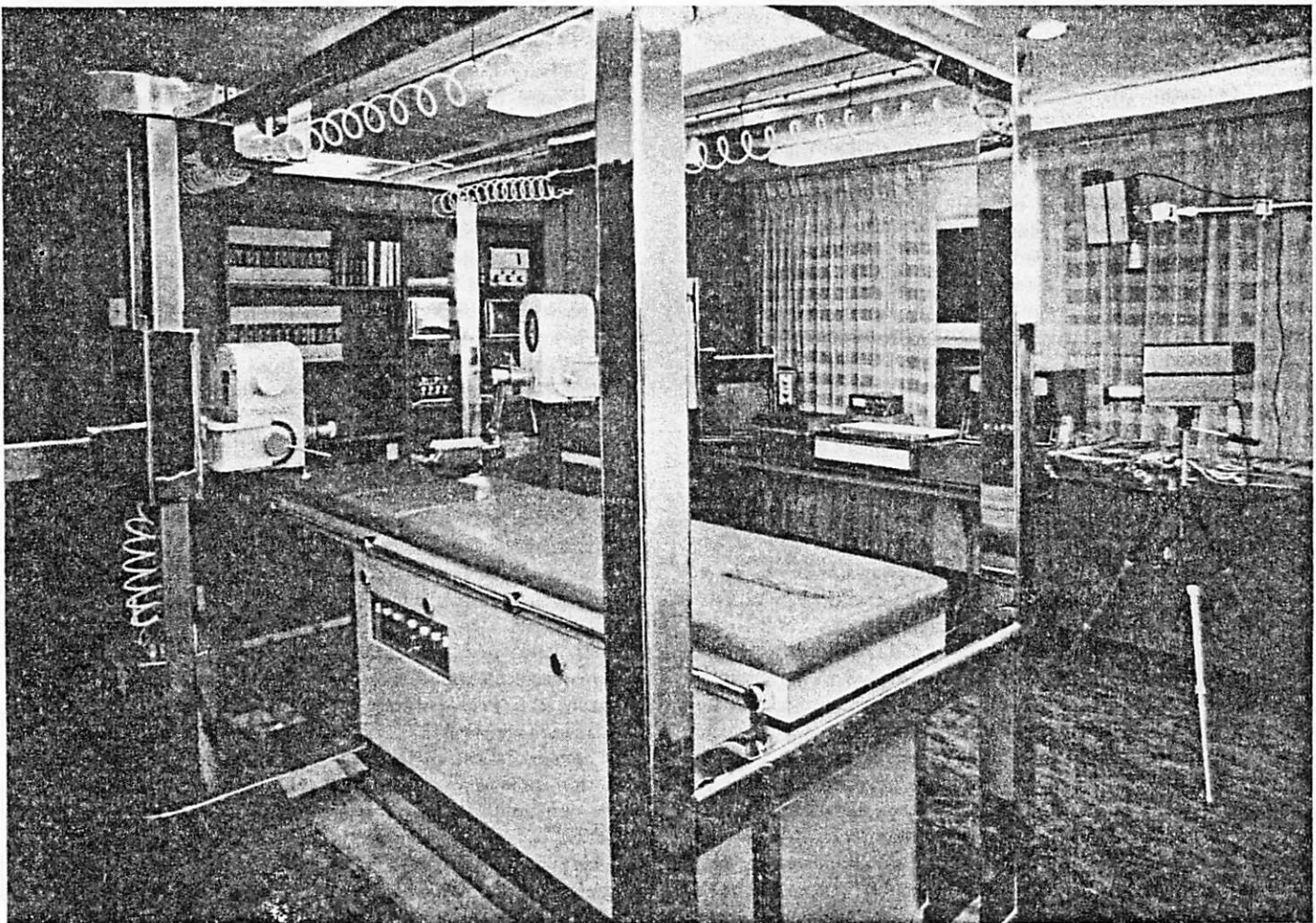
When initially learning the process of muscle testing, or improving already abundant knowledge of muscle testing, there are two primary areas of endeavor. First is an accurate knowledge of the science of muscle testing. This includes the anatomy and physiology of not only the muscle being tested, but also of the joint movements, other muscles which play a role in the testing procedure, and any peculiarities of the patient being tested, such as joint pathology. Considerable information is gained about the particular muscle being tested prior to ever directing force against the muscle to test its strength. These include many factors, such as the patient's movement into the testing position; movement as the patient attempts to hold the testing position; observation of the muscle; ability to isolate the muscle to its maximum amount, etc. The doctor who is knowledgeable in muscle testing gains as much information by observation as he does from actual forceful muscle testing. The knowledge of what the patient's subtle movements mean is a significant part of the science of muscle testing.

The second aspect is the art of muscle testing. The only way this can be learned is by practice, keeping the potential of operator prejudice uppermost in mind. The practice includes not only learning to observe the scientific information of the muscle activity as mentioned above, but also the mechanical aspects and feel of the muscle testing procedure. The examiner will encounter many types of patients who require a modified approach to manual muscle testing. There will be the usual younger to middle-aged individual who is the average patient for muscle testing. There are then the very young, the infirm, those with joint pathology or pain, and the patient who is trained in weight lifting. All of these require different approaches.

An excellent method for initially learning muscle testing, or for improving muscle testing technique, is to concentrate on one muscle at a time. Pick one muscle to test on every patient who comes in during a day. On that day, prior to taking care of patients, study the anatomy, postural factors, synergist muscles which can be recruited by the patient to assist the prime mover being tested, motions the patient may make to assist a weak muscle, and all aspects on the scientific

side of muscle testing. Throughout that day of testing a specific muscle, many types of patients will be encountered and the art of muscle testing will be developed. Even in a busy practice this takes a minimal amount of time, and over a relatively short period it can improve the technique of even a good muscle tester. Accurate manual muscle testing requires many facets of knowledge in the science, and considerable practice in the art to become proficient. The learning process of muscle testing can be likened very much to that of learning palpation. To accurately palpate structures, a doctor must be knowledgeable about the anatomy of the structure he is palpating, and he must have developed the art of touch distinguishing the characteristic differences between different types of tissue. All doctors who have been in practice for a period of time remember that the first time they attempted to palpate deep structure, the body felt like a big hunk of meat, with only major structures being distinguishable. As the years went by, the structures seemed to jump out and become more distinguishable. As the science and art became more familiar, abnormal structures became easy to distinguish from normal structures. This same rapid distinction of the abnormal and the normal is apparent to the proficient manual muscle tester. The abnormal movements of the patient attempting to substitute other muscles for the prime mover, the inability of the muscle to lock properly, the feel of abnormal pressure against the stabilizing hand, etc., all give clues to the proficient muscle tester which are in addition to the actual strength of the muscle against pressure.

Much effort has been expended toward developing equipment to measure the actual power of a muscle. The Cybex II dynamometer has been used by several investigators to evaluate muscle strength. In our laboratory, we have modified the Cybex II in such a manner as to make it more applicable to applied kinesiology muscle testing, which gears itself to the best possible isolation of the muscle rather than testing groups of muscles. This effort has, to a certain extent, been rewarding; however, before comprehensive papers can be written on information derived from this equipment, numerous questions remain to be answered. The equipment simply does not give much of the information available to the expert manual muscle tester. The equipment cannot see the patient move for recruitment of synergistic muscles. It cannot feel the muscle going out of an isometric contraction into an eccentric contraction. It cannot observe the timing factor in muscle testing, and it cannot observe pressure against stabilization. In an effort to overcome some of the deficiencies of muscle strength measurement equipment, we have added electromyography to our laboratory. This has shown some evidence of a change in the timing factor of the muscle motor activity when a strong muscle is contracting as compared to a weak muscle. We have also installed closed-circuit television recording equipment, which simultaneously records the strip graph of muscle strength, electromyography, and other parameters, while recording a picture of the patient doing the test. This gives an opportunity to review the graphed information, while at the same time



Modified Cybex II dynamometers designed for applied kinesiology research.

observing the patient for body position changes of recruitment. Although this investigation is still in its early stages, it promises to reveal more new information regarding the data obtained from manual muscle testing and the application of therapeutic measures to change muscle strength.

Several have developed hand-held dynamometers to record the pressure exerted against a muscle in isometric contraction going into eccentric contraction. These hand-held strain gauges are fraught with all the same problems that standard manual muscle testing has. The timing of the test, as well as the angle of pressure, is variable. The patient's ability to shift slightly for recruitment or substitution is always present. The stabilization of the patient has the same variables, and on, and on. The hand-held strain gauge introduces additional problems into muscle testing that the proficient manual muscle tester does not have. Regardless of the design of the hand-held transducer to this date, there is difficulty in the operator holding it effectively between his hand and the point to be pressed against for the muscle test. Some designs are better than others; however, all introduce an additional factor to be manipulated and generally managed by the operator.

More and more investigators are working with different methods of evaluating muscle strength on a strictly objective basis. Undoubtedly as expertise continues to develop in this field, considerable new information will be learned about muscle testing procedures and the physiologic changes that cause muscles to be strong and weak under different circumstances. As we continue to work with these additional evaluation methods it is obvious that manual muscle testing will maintain its predominance in the near future both as a research tool and, certainly, as a clinical expedience in the daily care of patients. Every individual using muscle testing should dedicate himself to developing the maximum level of expertise in both the science and the art of muscle testing.

Facilities for Muscle Testing

As with any other tool, manual muscle testing must be performed in an environment that is conducive to obtaining accurate results. The most important factor is the table used as an examination support. The first consideration is the padding on the table. A soft table does not give adequate support and makes testing specific muscles very difficult. For example, when preventing the patient from rotating is an important factor in the test, such as the psoas test, accurate stabilization is almost impossible. The patient's buttocks sink deeper into the cushion on the side of the test, and the examiner has no ability to counteract the rotation factor; thus he obtains probably erroneous results. On the other hand, a table which is too hard can cause the patient pain; again the test will yield inaccurate results because the patient fails to contract adequately. When doing a hamstring test in the prone position on a hard table, there is a great chance of jamming the patella into the hard table, causing pain to the patient. Obviously the patient will let go of the muscle contraction rather than allow the pain to continue. A quadriceps test done in the seated position over the sharp edge of the table will cause a cutting action by the table into the hamstring tendons, again causing pain to the patient. The table should be wide enough to allow the patient to have his hands lying loosely at his sides, whether in the prone or supine position. The patient's hands lying randomly on his body can influence the test results by accidentally stimulating active nerve points on the body's surface. The width of the table is also important for the patient to have confidence in the procedure without any fear of falling.

Tests which are done in the side-lying position on a very narrow table can make the patient more concerned about falling than with the procedures being accomplished. Concern about falling can also be a factor in tests such as the oblique abdominals, where the patient is tested from a seated position going down to a lying position, with rotation as a factor.

The patient should be unclothed to a reasonable degree so that the skin over the muscle being tested, as well as that over the synergists, fixators, and antagonists, can be observed. The gown utilized for female patients should be designed to give a degree of modesty so that the patient is not overly concerned about it, mentally influencing the test because she is concerned with appearance and fails to concentrate on the testing procedures. This is especially important in tests such as the sartorius, adductors, gluteus medius, etc.

The patient's clothing or gown should also be loose enough that the patient can easily therapy localize to most areas directly on the skin. Any clothing worn by the patient should not be so tight that it encumbers movement during testing procedures.

The environment and equipment should also be comfortable for both the patient and the examiner. A table of the correct height, preferably one that elevates, should be provided. A table at the improper height not only creates leverage problems for the examiner, but also puts the patient at a height that is fatiguing to the examiner. Muscle testing, even in a full day of very active practice, is not fatiguing to the operator if the testing is done properly.

Patient Factors Which Will Influence the Test and Give Inaccurate Results

Muscle testing evaluates the nerve system and other physiologic parameters which influence the strength of the muscle. There are numerous factors of which the examiner must be aware that can cause muscle weakness or strength which is not the true status of the system, thus giving erroneous results. Most of the time the examiner will be aware of these potential problems through proper questioning during consultation and tests done early in the examination.

A majority of medications influence the body by altering the function of the nerve system. It should be obvious that a patient who is on medication will possibly show erroneous information on evaluation of the nerve system by muscle testing, or, for that matter, by any other method of testing the nerve system. Especially problematic are tranquilizers, mood elevators, birth control medications, diuretics, blood pressure medications, and asthma medications.

Any joint involved in the muscle test must function normally to obtain accurate results, or the factor of the abnormal joint must be taken into consideration in evaluating the procedure. A painful joint involved in the test will often cause the patient to yield rather than allow the procedure to cause more pain. This same basic principle is also applicable to pain caused by inappropriate procedures, where the examiner himself is causing the patient pain. It is a normal, natural reaction of the individual being tested not to continue muscle contraction when the procedure is painful. Furthermore, the joint must have normal range of motion, or the examiner must consider the lack of normality in evaluating the test procedure. In questionable cases, take the joint passively through its range of motion. It is frequently of value to have x-ray and other diagnostic procedures accomplished on the questionable articulation.

Metabolic imbalances in the patient will sometimes systemically alter the information obtained from muscle testing.

The patient who has a frank or relative hypocalcemia will develop muscle cramps, causing the muscle to seem weak when actually it is not. General malnutrition, as well as dehydration, gives general muscle weakness throughout the body which does not reflect the activity of the nerve system but rather that of the metabolic state. Even though these metabolic problems cause inability to get accurate, individualized information from the manual muscle testing system, they do give the examiner information about what needs correction to obtain the ultimate level in the patient's plateau of health.

Muscle testing obviously requires the cooperation of the patient. For the patient to be cooperative, he must thoroughly understand the muscle testing procedure. Once the patient begins to understand the principles of muscle testing, further need for education is minimal. It is necessary that the patient understand specific instructions for the different tests, such as don't bend your elbow, keep your knees straight, resist as hard as you can, etc. Along with understanding the test, the patient must have consistent motivation to perform the test. Sometimes, especially after a treatment procedure has been performed, the examiner can unconsciously in his enthusiasm give the patient more motivation to perform the muscle contraction than he did prior to the treatment. It is sometimes of value to repeat a test, giving the patient additional motivation by saying, "Contract as hard as you can, and let's see if that isn't stronger than it appears." This is especially valuable during the examination phase, prior to treatment. Continually evaluate the patient's motivation to perform the test.

Neurologic disorganization within the patient can give information which is random in nature. In the early days of applied kinesiology, this randomness was observed in patients who had muscle weakness which did not correlate with other factors of the examination, and was generally confused in nature. The term "switching" was applied to this neurologic disorganization. Many examination procedures have been developed in applied kinesiology to determine when the patient is switched, or neurologically disorganized. Every patient should be evaluated for the possibility of switching prior to a major examination. Before muscle testing procedures can be performed for specific conditions, the patient must be neurologically organized by the various therapeutic measures which have been developed.

The patient's hands should always be placed away from his body. Therapy localization, which is the placing of the patient's hands on specific areas of his body to stimulate nerve endings and other factors, can change the results of a muscle test. In the early days of applied kinesiology, before these principles were known, the patient might randomly have his hands on his body, causing muscle strength changes which the examiner observed but could find no reason for. Until this basic principle of applied kinesiology was discovered, these random test results were an enigma, causing much confusion. Testing a muscle with nothing being done to influence either its strength or weakness is called testing "in the clear." The examiner should constantly be aware of the patient's hands, keeping them off the body when he intends that the patient be tested in the clear.

Continued testing of a patient while looking for an abnormality can possibly fatigue the patient's muscle, showing a weakness not caused by additional factors the examiner puts into the test. It is easy to observe whether a muscle has weakened from some additional factor in the test, or from frank fatigue. When the muscle weakens, simply reverse the additional factor to determine if the muscle regains its original strength. Obviously a fatigued muscle will not regain its strength;

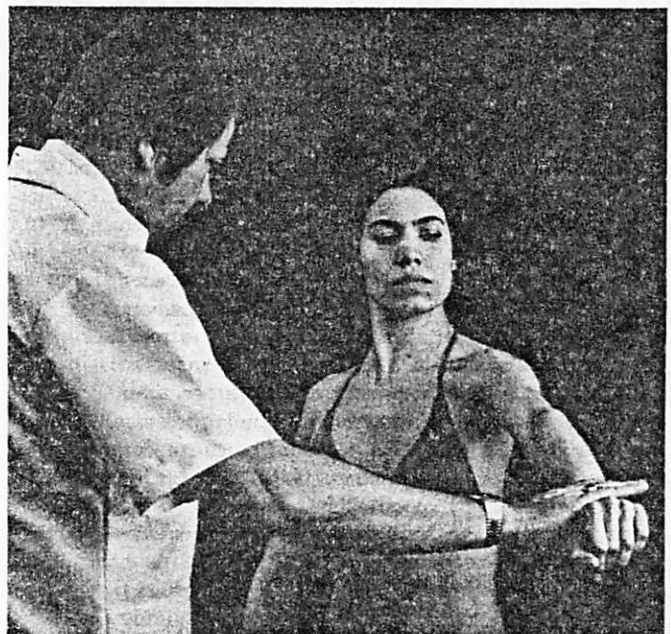
it will remain weak until sufficiently rested.

Science of Manual Muscle Testing

To apply the science of manual muscle testing, the examiner must have knowledge of the anatomy of the muscles involved in the test, the tendon attachments, the actions of the muscles, and the physiology of muscle contraction. Applying this knowledge, he can observe a patient's efforts to recruit other muscles to aid the prime mover being tested. He must know what stabilization is necessary for the patient to use the prime mover to best advantage. Furthermore, the examiner must have knowledge of the dynamics of his own body and how they influence the evaluation of the muscle strength the patient exhibits.

First, it is important to isolate the specific muscle for testing as much as possible. When referring to isolation, it must be understood that, with only a few exceptions, it is impossible to completely isolate a muscle for testing. In most instances, the structure is placed in a position that gives a specific muscle best advantage to be the prime mover in the activity. As we will see later, the basic fact that muscles cannot in general be isolated gives the experienced muscle tester a considerable amount of information about muscle strength by observing the patient's activity in performing the test.

Testing specific muscles gives experienced examiners excellent reproducibility in muscle testing. Generalized tests, such as the "arm pull-down test" or the "leg test," are of groups of muscles rather than specific muscle testing. They relate to the gait mechanism of the body, and should not be used to evaluate the nerve system or other energy patterns; they should be reserved only for testing the gait mechanism of the body. Unfortunately, these tests have been used by many who are not knowledgeable in the science and art of manual muscle testing. These generalized testing procedures have been used to promote various techniques, such as generalized testing for nutrition, and worst of all, as parlor tricks. These procedures are condemned because they have little reproducibility regardless of the examiner's experience, because it is difficult to



The arm pull-down test, which is highly inaccurate.

even slightly isolate specific muscles. In the arm pull-down test, a very slight change in the vector of force being applied entirely changes the test, consequently affecting the information derived. The stabilization of the scapula, the function of the shoulder girdle, the general stabilization of the standing or sitting patient, and the multiplicity of muscles involved must all be taken into consideration during this greatly variable test.

There are four categories of muscles which must be understood and evaluated in any specific manual muscle test. The prime mover is the muscle being tested; the starting position of the test is one that gives greatest isolation and opportunity for that muscle to be the major factor in the test procedure. The synergist muscles are those that are anatomically situated in such a manner that, with slight change in testing position or action, they can be recruited to help perform the motion intended for the prime mover. In many instances the synergist muscles are active in the testing of the prime mover; however, they are at a disadvantage to provide the major strength in the test. The fixator muscles are those that are responsible for stabilizing the part or parts being tested. Fixator muscles are not a factor in all muscle tests, but when involved they are extremely important in evaluating the outcome. Fixator muscles are sometimes located between the point of the prime mover muscle and the point of force being applied to test the muscle. An illustration of this is the requirement of normal deltoid function when the arm is being used as a lever to test the ability of the serratus anticus to hold the scapula. In other instances the fixator is located distal to the point of muscle activity and the point of force being applied. An example of this is the reverse of the previous example, where the serratus anticus must be capable of stabilizing the scapula when the deltoid is being tested. The antagonist muscle is usually not a factor in the routine muscle test because of reciprocal inhibition. It can be a factor in abnormal conditions or in specialized applied kinesiology procedures, such as reactive muscle testing.

In order to evaluate the prime mover, synergists, fixators, and antagonist, the examiner must have very good anatomical knowledge. First, the exact origin and insertion of each muscle is important. This ties in with the knowledge of the action of the muscle. Additional information in muscle evaluation can be obtained by palpating for tenderness and nodules at the origin and insertion of muscles. The length and location of the tendon gives considerable information, especially on those muscles which have long tendons that stand out during the muscle test. For example, it is easy for the experienced muscle tester to obtain excellent isolation of the peroneus longus and brevis by observing maximum tension on those tendons and minimum tension on the tendons of the peroneus tertius and extensor digitorum longus. Knowing the location of the tendons and muscle belly also gives the examiner the ability to palpate these structures for contraction during the test.

The examiner must thoroughly understand the muscle test. Sometimes a muscle test is misinterpreted because of not observing what the prime mover is actually doing. An example of this is in the serratus anticus test, using the arm as a lever to move the scapula while the examiner's thumb lifts on the angle of the scapula. If the serratus anticus muscle is weak, the scapula is not being stabilized and the arm will come down easily. The test, however, is actually whether the scapula moves, not whether the arm comes down. The test requires an intact shoulder, and the arm is used only as a lever to direct force into the scapula. Another test with a similar observation is the popliteus test. The examiner exerts force on the foot to rotate the tibia on the femur. Whether

the foot turns around is insignificant; the actual test is the movement of the tibia on the femur as observed by movement of the tibial tubercle. An examiner cannot evaluate this test unless he is actually observing the tibial movement.

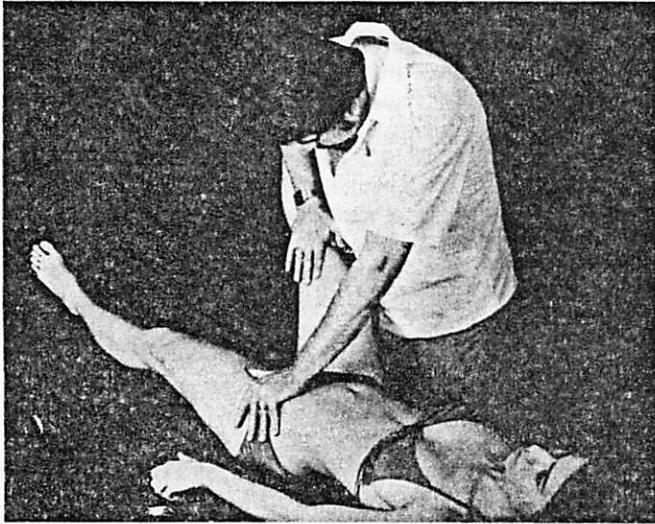
Knowledge of the action of all the muscles involved in the test is absolutely mandatory. Where the prime mover's major action may be flexion of an articulation, the slight amount of rotation that the prime mover imparts on the articulation is of value in determining the exact starting position for the test. Just as important — and possibly even more so — is the action of the synergist muscles. This knowledge imparts to the examiner the ability to determine when the patient is recruiting synergist muscles to support the action of the prime mover. Such determination can often easily be made when the patient is placed in the test's starting position. The examiner places the extremity into position and allows the patient to hold that position. In the presence of muscle weakness, the patient will shift his body in such a manner that a synergist muscle can take over the function which should be accomplished by the prime mover. This shift in motion is continued during the active process of the test if the examiner is not acutely aware of the activity, which is subconscious in the patient. The patient knows he is to resist the force of the examiner, and his body is beautifully designed to have supplemental muscle activity when a specific muscle is weak for one reason or another. There are many observations of this body language of muscle weakness that the experienced examiner will make during muscle testing. For example, the prone patient attempting to hold his thigh in extension with a weakened gluteus maximus will either roll his body to elevate the hip on that side, or extend his knee to lengthen the hamstrings and bring them into the contraction. The patient with weak peroneus longus and brevis muscles will attempt to dorsiflex the toes and ankle during the test. The doctor's knowledge that the tendons of the peroneus longus and brevis are behind the lateral malleolus, whereas the other muscles' tendons are in front of the lateral malleolus, gives a clue that there is weakness of the peroneus longus and brevis. It is good to remember that the cooperating patient will always attempt subconsciously to utilize full muscle strength, even though it is not the muscle that the examiner is attempting to isolate as the prime mover.

Knowledge of the anatomy involved gives the examiner further ability to make observations visually and by palpation. Systemic information can be obtained by recognition of the manner in which the muscle contracts and relaxes. The patient with a relative hypocalcemia will have muscle cramping or, on a more subclinical level, a failure of the muscle to relax in a normal manner. Failure of the muscle to relax can also indicate, along with other upper motor nerve signs, pathology of the central nerve system. Palpation of the muscle for atrophy and failure to change muscle strength with the usual therapeutic procedures used in applied kinesiology can indicate nerve damage, which should be evaluated further by usual neurologic testing procedures.

Proper patient stabilization is absolutely mandatory to obtain accurate information from muscle testing. Stabilizing procedures are considered individually for each muscle to be tested. A generalization of stabilization procedures is presented here. In addition to the knowledge of anatomy and action of the fixator muscles, the examiner must consider the stabilization of the patient provided by the table and his own technique. As mentioned previously, the table should have the correct amount of padding, being neither too soft nor too hard. The table surface should be such that the patient does not slide

easily on it; this sometimes happens when the table is covered with paper, as is usual on standard examination tables. It is permitted — and sometimes required — that the patient use his arms and hands to stabilize the trunk on the table. This will vary with different patients because of body weight and increased friction or lack of friction of the trunk with the table.

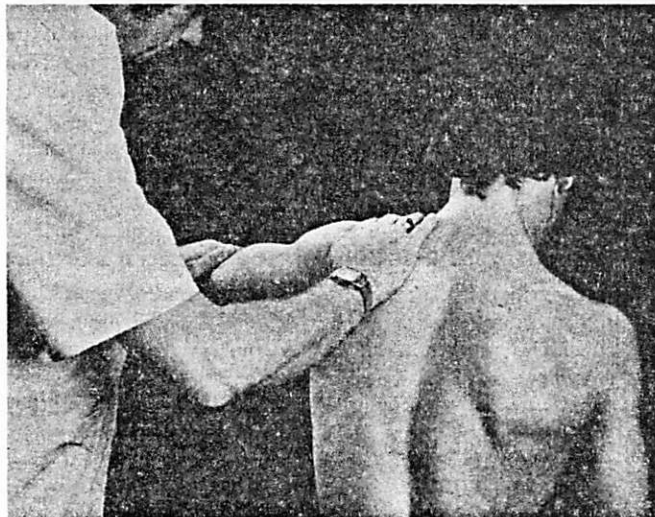
The examiner must provide adequate stabilization, in such a manner as not to cause pain to the patient. Pain is often caused by the examiner when he is stabilizing over a bony prominence, such as the anterior superior iliac spine in either the psoas or pectoralis major sternal division tests. This tendency



The examiner's stabilizing hand over the anterior superior iliac spine can cause pain and, subsequently, inaccurate results.

to cause pain during stabilization is even greater when the patient has a weakness of the muscle involved, because the patient will tend to rotate his body to bring additional muscles (synergists) into the contraction of the test.

Additional factors of stabilization develop during tests of rotation, when the examiner must apply counter pressure. These are tests where an extremity is being used to provide



Observe the patient's lateral body shift.

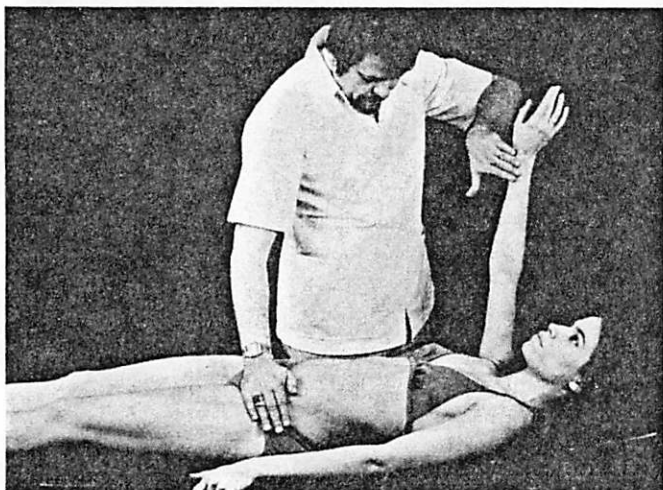
leverage, testing a muscle which gives rotation to the extremity. An example is the teres minor test; the elbow is flexed to 90° and internal rotation is imparted to the upper arm, testing the rotation capability of the muscle. The examiner must stabilize the elbow and concomitantly observe that the patient is not abducting, flexing, or extending the shoulder, or flexing or extending the elbow.

When the patient is in a seated or standing position, stabilization becomes much more difficult. The trunk is in such a position that it can move in any direction, giving the patient capability of adding additional muscles to the actual synergists of the test, complicating the evaluation procedure. For example, the patient can laterally flex his trunk away from the side of a deltoid test, keeping the elbow at the same height but actually allowing the shoulder to adduct. In this same test, he also has the ability to hike his shoulder up with the upper trapezius and levator scapula, showing no lateral trunk deviation but still influencing the test, making evaluation difficult for the untrained examiner. The standing or seated position also places additional parameters into the test which may change the strength of the muscle being tested, though the muscle itself is not weak. For example, the patient may have a foot problem which stimulates the proprioceptors to send information to the latissimus dorsi to inhibit the muscle, causing the muscle to test weak. This could be interpreted to mean the latissimus dorsi is weak, when the actual problem is in the foot and erroneous information is being transmitted by the nerve system correlated with the gait mechanism. Again, we see how a valuable tool such as muscle testing is no better than the operator who is performing the test and making the evaluation.

The knowledge of the dynamics and kinesiological factors of the examiner's own body in the muscle test is important background of a scientific nature to the examiner. We will further discuss the actual application of this knowledge under the subject of the art of manual muscle testing. The examiner must understand the various leverage factors he has in his body in applying force in a muscle test. These leverage factors will be utilized differently with different patients because of varying strength and characteristics.

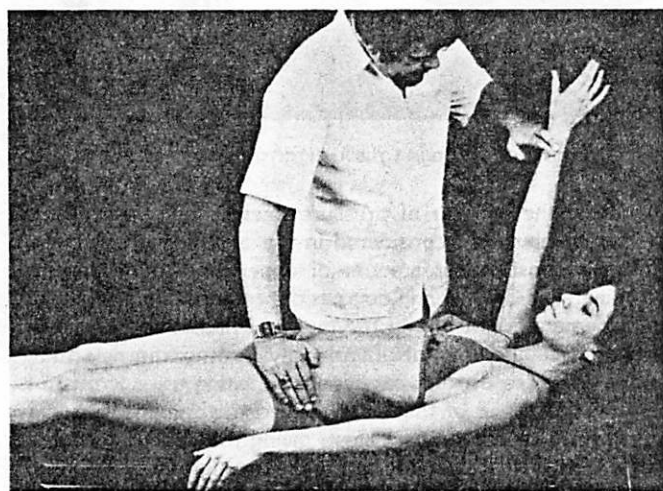
The examiner's contact point should be at the same location for comparative muscle tests on the same patient. The contact point may, however, be varied to give different amounts of leverage, depending on the patient's strength. An older patient without good muscle tone requires a contact point giving less leverage and more advantage to the patient. For example, the contact point for the mid-trapezius test on the older patient can be above the elbow, whereas the contact point for a very strong patient will be more distal, toward the wrist, giving the advantage to the examiner. The leverage factor of the contact point should take into consideration additional articulations and muscles that may influence the testing procedure. In the above illustration, the elbow with its biceps and triceps becomes a greater factor when the contact point is at the wrist than it is when the contact point is above the elbow. Contact for the psoas muscle test can be at the ankle or above the knee, again taking into consideration the physical build and general strength of the patient.

The type of contact the examiner makes with his hand has a great bearing on his perception of the test. Fingertip contact gives more perception of strength, because of the greater abundance of nerve endings in both the fingertips and in the additional articulations that are involved, than does hand contact. Fingertip contact is usually the preferable method of testing because of the additional nerve input regarding the



Pectoralis major sternal division test being done correctly.

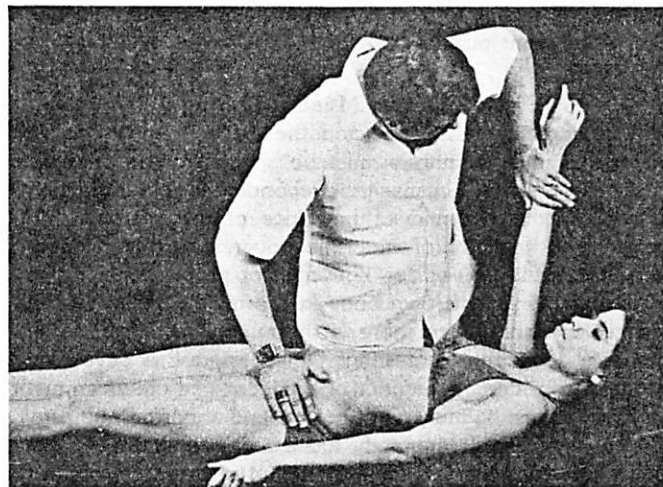
pressure exerted; however, on extremely strong patients or on strong muscle groups (such as the quadriceps) hand contact is the preferred method. When making fingertip contact the doctor must be careful to use all of the fingertips, spreading the pressure over a wider area. Sometimes one- or two-finger contact at the wrist, as in a pectoralis major clavicular division muscle test, causes pain because of the small contact over a bony area. Again, the patient will yield rather than allow the pain to increase. This yielding might be considered a weak muscle when actually it is not.



Two-finger contact can cause the patient pain.

The shoulder, arm, and wrist of the examiner should be held at the same angle for each comparative test. When his elbow or shoulder is flexed to a greater degree in one test than another, there is a different relation of the examiner's biceps brachii and his pectoralis muscles, making it difficult — if not impossible — to get accurate comparative results. Also, the sensory nerve endings of the doctor's joints and muscles are in a different perspective, again making difficult the necessary comparison.

The examiner's shoulders should be kept in the same plane each time a muscle is tested. When his shoulders shift, this indicates that the examiner is transferring his body weight into the muscle test. When a mixture of the examiner's muscle



Examiner shifts arm and forearm, using full hand contact. These changes limit comparative testing ability.

contractions and body weight is introduced into the test, it is impossible to make comparative evaluations. There are occasions when the examiner needs to apply additional body weight to test very strong individuals, usually with a weight-lifting background. When this is necessary, the test should be performed with the shoulder plane and angle of the trunk the same each time, thus giving a measure of reproducibility to the amount of body weight being put into the test. The final decision comes best from the amount of force the examiner adds to his body weight with his muscle contraction and hand neurologic perception.

Muscle testing is only a portion of the applied kinesiology examination. In order for the muscle testing to be validated in the examination, the results must correlate with other signs and findings. The structural balance of the subject must correlate, as should the body language of weakness. Body language of weakness includes the positional changes the patient makes to aid the weakness by substituting synergist muscles. For example, during a psoas test the patient may make more hip flexion or adduction to bring the rectus femoris or the adductors into the test. Most tests have special considerations for evaluating synergist activity. The examiner must understand these subtle changes in the patient's body to obtain full correlation of the examination procedures. Furthermore, there are predictable ways the body adapts to structural imbalances. In specific conditions, there should be a particular pattern of pain, upon digital pressure or symptomatically expressed by the patient.

The type of subluxation observed by palpation, challenge, swelling, x-ray, etc., is predictable with specific patterns of muscular weakness. When a subluxation is found, it should correlate with all findings, not just those observed by muscle testing.

These patterns are explained throughout applied kinesiology education, together with other patterns such as meridian imbalances, nutritional correlation, cranial/sacral dysfunction,

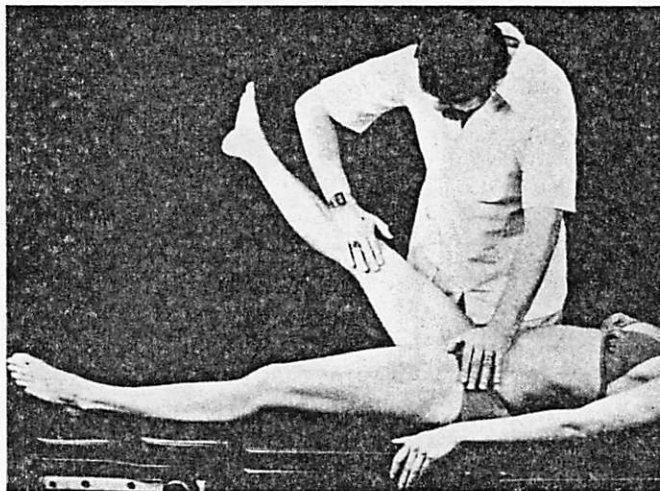
and general neurologic organization of the body. All patterns must correlate in an examination. If the examiner does not find correlation of all factors with his muscle testing, he should evaluate the quality of his testing, or evaluate the patient for neurologic disorganization. If the patient is neurologically disorganized, correction of this factor should then cause all examination factors to correlate. Muscle testing is only one piece of the giant puzzle.

Art of Manual Muscle Testing

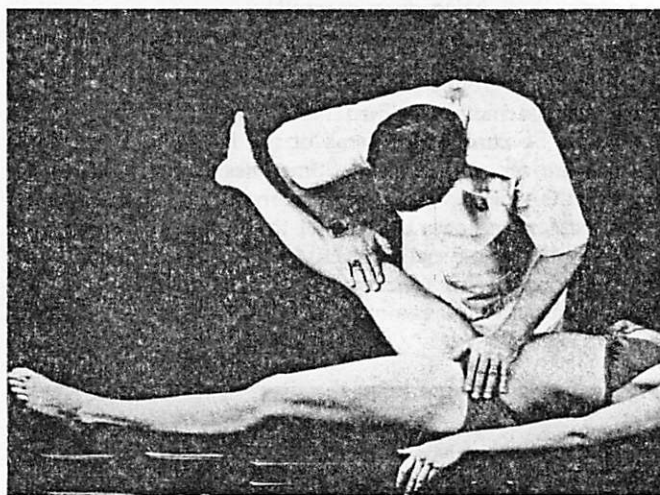
In comparing the science and the art of manual muscle testing, the major emphasis must be applied to the scientific aspect. This is simply because the preponderance of information comes from the examiner's knowledge of the anatomy and physiology of the action of the prime mover, synergists, fixators and antagonists, as well as knowledge of proper stabilization and the function of his own body in the muscle test. Art can be developed only when there is thorough knowledge of the scientific side of muscle testing. Obviously, art is developed through a considerable amount of practice. The practice must be applied to testing muscles of normal and abnormal subjects, and people with different body types and backgrounds. This practice develops the feel for the amount of pressure to exert during muscle testing, and for the body position the examiner desires to get accurate information without fatigue to himself.

The different types of patients the examiner will encounter must be considered. The most difficult testing is of the infirm, or the patient who has pain or joint pathology. The infirm individual requires great discrimination, using mild amounts of pressure in testing. Fingertip contact with a small amount of leverage is mandatory. The patient who has pain or joint pathology may not be able to tolerate direct testing in the area of involvement. There are many procedures in applied kinesiology which give ability to indirectly test the structure. These indirect procedures are discussed in applied kinesiology orthopedic and metabolic procedures. Another classification of patients who are difficult to test is the very strong individual, often with a background of training in weight lifting. These very strong persons have tremendous ability to recruit substitution muscles when there is a weakness. This is especially true of the weight lifter, as he has trained his body to get the maximum amount of power with different moves. His training requires that all muscles involved in the power production must be activated. These individuals become much easier to test as the examiner becomes more experienced in putting the subject in a testing position and maintaining that position with adequate stabilization. Stabilization is the most difficult part of testing the very strong person.

The most important factor in accurate muscle testing is the reproducibility of the test. This is especially important when the testing procedure is being used as a "before" and "after" evaluation of a treatment technique. Without reproducibility, the examiner cannot make comparative tests before and after treatment. In order to have reproducibility, the examiner must develop habit patterns of muscle testing so that his body is automatically in the same position for each test. As mentioned, the body position will vary, depending on the type of patient being tested. Even the experienced muscle tester should periodically evaluate his starting point, direction of force, contact point, wrist-elbow-shoulder position, as well as shoulder plane and trunk angle to be certain that all are habitually in the same position for repeated muscle tests on a patient. Consciously develop these habit patterns to reproduce body positions in muscle testing.



Psoas test done correctly.



Examiner throwing his weight into the test.

Judging the amount of pressure exerted during a muscle test is very obviously considered in the art of muscle testing. It takes a considerable amount of experience to be able to discriminately judge varying degrees of pressure. Unfortunately, this judgement is not one of the muscle being strong or weak; there is an infinite amount of variability from extremely strong muscles to those of total paralysis. In making a judgement of pressure, the speed of the force applied to the patient should be uniform with each muscle test, giving the patient adequate time to contract against the force. In our laboratory we have observed, by use of the Cybex II dynamometer and electromyography, that one of the factors involved in the change of muscle strength is a timing factor of the motor units within the muscle. In a muscle that tests weak with isometric to eccentric contraction, there is often a delay of the motor units firing. This requires the manual muscle tester to always apply pressure at a constant speed, not more quickly one time than another. This requires a considerable amount of expertise on the examiner's part. Unfortunately, even the patient being tested cannot usually observe the change in speed of pressure during the muscle test. Both the well-meaning doctor and the patient can easily be fooled by slight changes of technique during manual muscle testing.

The muscle test consists of observing the isometric con-

traction capability of the muscle and increasing pressure to the point that the muscle goes into an eccentric contraction. Once the structure has started to move, the muscle test is essentially over. Many times students of applied kinesiology are led astray by well-meaning instructors who take a muscle completely through its range of motion to demonstrate its weakness. It must be understood that taking a muscle completely through an eccentric contraction is not necessary, and may be potentially harmful. It is fatiguing to the patient's muscle and to the doctor, and it may even in some instances cause micro-trauma in the muscle.

During clinical evaluations, it is quite often of value to re-test a muscle which appears to be weak, reassessing all of the scientific and artful aspects of muscle testing. Make certain that the patient has adequate time to contract, that he understands the procedure and is fully motivated to execute the muscle test. The examiner should assess his own knowledge of the muscle test and make certain he is applying the art of muscle testing to his maximum ability.

Muscle testing has proven to be a valuable tool in the assessment of the nerve system, other energy patterns, and of structural integrity. However, regardless of the value of the tool, keep in mind always that the procedure is only as good as its operator.

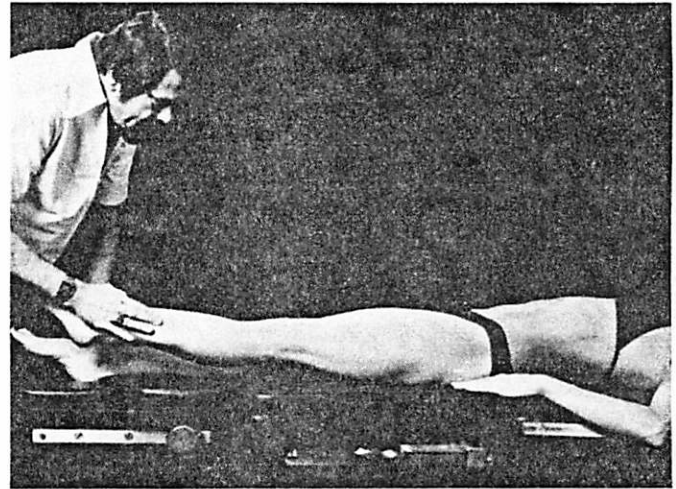
Assessment of Muscle Testing by Other Operators

Because muscle testing has been adopted by many individuals as "proof" of treatment techniques — especially those being introduced as new, philosophic concepts — it is important that each individual who will ultimately find himself in the audience for such a presentation apply his knowledge of accurate muscle testing to evaluate the lecturer and demonstrations. Since the observer will not have the opportunity to actually feel the pressure being exerted, he must give his attention to the body movements and the body language of the individual being tested and that of the examiner. Also, the technique of the specific muscle test should be evaluated.

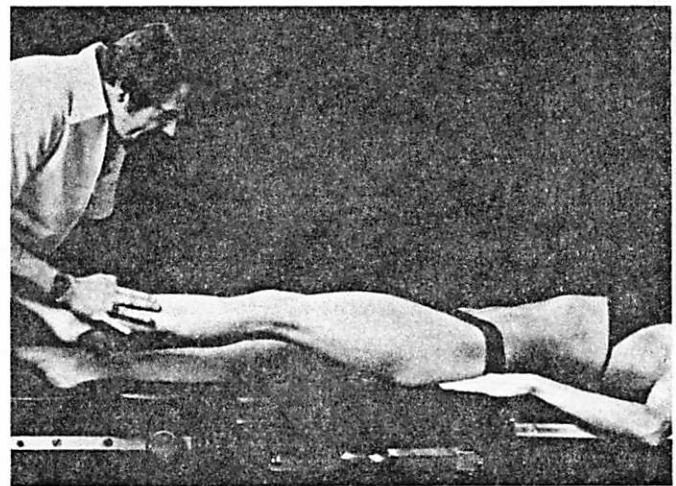
Evaluating the technique of the specific individual test obviously requires that a specific muscle be tested. Even the most proficient manual muscle tester cannot get good reproducibility when compared with other proficient muscle testers in generalized muscle tests, such as the arm pull-down test and the leg test. This type of testing to evaluate therapeutic procedures, nutritional challenge, and other factors must immediately be suspect. The experienced muscle tester can easily evaluate specific muscle tests done by others. Is the starting position the same for each test? Is there obvious change of speed of the test? And is there failure to adequately stabilize during the muscle test?

The experienced muscle tester can easily evaluate the patient's body language of strong or weak muscles if he is in a close enough position to make observations and the examiner is using standard muscle testing procedures. Does the patient have to shift his body to bring the muscle to the starting position for the muscle test? After the part is placed in the starting position, does the patient automatically shift his body slightly to allow synergistic muscles to take over for the supposed prime mover? Is there an effort by the patient to bring other muscles into activity, thus changing the test? For example, when the sternocleidomastoid is being tested, does the patient try to turn his head toward midline, thus recruiting the synergistic action of the scalene muscle group?

The examiner's body language gives a considerable amount of information about whether the muscle testing procedure is



Tensor fascia lata test.



Patient bending knee, which changes the parameter of the test.

being done with finesse. When making comparative muscle tests, does the examiner duplicate his positions consistently? Does he throw body weight into the muscle test one time but not another? Does he use the same contact point repeatedly? Is the leverage the same on repeated tests? And, finally (and most difficult to evaluate), is there a high degree of salesmanship in the presentation, possibly contributing to operator prejudice?

This section on evaluating muscle testing by others is not presented to discredit or discourage in any way those individuals who are using muscle testing as a clinical tool. It is presented to heighten the awareness of the necessity for accurate muscle testing. The accurate use of this valuable diagnostic tool will enhance its future value, to both the chiropractic profession and to the patients who are being and will be treated on the basis of information derived from this evaluation system. The only way to use any tool to its maximum effectiveness is with an understanding of how to use the tool, what it is **not** designed for, and with a high respect for what it **is** designed for.

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VERTEBRAL TORQUE SWITCHING

by

Gerard E. Achilly, D.C.

ABSTRACT

The purpose of this paper is to show torque action of a vertebra can be switches, either clockwise or counter clockwise, especially in the area of the lumbar spine.

PROCEDURE

Observation during challenge of a lower lumbar subluxation showed a large percentage of patients with torquing of a vertebra only in one direction either clockwise or counter clockwise. Therapeutic response was lacking in some cases indicating a lack of stability in the area of the corrected subluxation.

It was felt that possibly the torquing direction of the vertebra could be switched. K-27 was routinely applied prior to any challenge, indicating another type of switching. Direct pressure in a rotatory fashion was applied to the umbilicus and coccyx simultaneously. This was rechallenged, and in some cases the torque direction was entirely opposite the original challenge, indicating a switched pattern.

SUMMARY

This would indicate that each patient should be unswitched for torque subluxation by contacting the umbilicus and coccyx.

LABORATORY TESTS NUTRITIONALLY EVALUATED

for:

SMAC-20

CBC

ELECTROPHORESIS

T4

HAIR ANALYSIS

GLUCOSE TOLERANCE TEST

With supplemental urinalysis

and

Arthur's Morphologic Immunostatus Differential (A.M.I.D.)

Information

AS WELL AS THE:

STANDARD PROCESS VEGETARIAN SUPPLEMENTS

BY

MICHAEL D. ALLEN, D.C., N.D.

LABORATORY TESTS NUTRITIONALLY EVALUATED

by

Michael D. Allen, D.C., N.D.

ABSTRACT: The purpose of this paper is to present a nutritional interpretation to some of the more commonly performed laboratory tests -- SMAC-20, CBC, Electrophoresis, T4, Urinalysis, Hair Analysis, Glucose Tolerance Test -- as well as the less commonly utilized yet well proven Arthur's Morphologic Immuno-Status Differential (A-MID) test. Also included is a list of vegetarian supplements from Standard Process.

INTRODUCTION: Laboratory tests are a numeric or graphic representation of the patient's nutritional status. Each time a test is performed, the results should be interpreted not to see merely where the patient's test levels are at a certain time, but rather to see how they relate to each other. They are the body's signals of some impending imbalances or potential changes within a delicate system.

A blood test should be viewed as the levels of specific minerals, enzymes or bio-chemicals within the blood. A SMAC-20, for example -- which includes cholesterol, triglycerides, SGOT, SGPT, serum electrolytes, serum protein, glucose, LDH, alkaline phosphatase, etc. -- shows how the body is transporting these substances from one place to another for their eventual use.

A Hair Analysis, on the other hand shows the body's potential storage capabilities or malabsorption of trace minerals in the tissues. Should a specific trace mineral be elevated in the tissues -- calcium for example -- and decreased in the blood, this suggests that the person may have an over abundance

of vitamin F in their body with a deficiency of vitamin D.

Presented here is an easy to use compilation of nutritional supplementation for each laboratory test along with the name of the test, ideal value, other possible health problems and other suggested laboratory tests to perform.

The data presented has been interpreted solely for Standard Process supplements, with a few exceptions. If the doctor or technician is familiar with another type of vitamin or food supplement, these supplements could be substituted with similar results possibly. Tremendous results have been received over a period of almost three years with this system of interpretation.

SMAC-20
CBC
ELECTROPHORESIS
T4

<u>ELEMENT</u>	<u>IDEAL</u>	<u>LOW</u>	<u>CHECK FOR...</u>	<u>HIGH</u>	<u>CHECK FOR...</u>	<u>OTHER TESTS</u>
NOTE: ALL DOSES ARE A DAILY DOSE UNLESS OTHERWISE INDICATED						
Glucose	Adults: (Serum) 70-100mg% 60-95mg% (Whole blood)	Hypoglycemia diet AF Beta-food (6) Protefood (2) Drenatrophin (6) Pancreatrophin (3) (Vitamin B (6)) (Zypan (6))	Starvation; Hyperinsulinism; Arthritis; Hypoglycemia;	Diaplex (6) No concentrated sugars or starches Vitamin B (6) Multizyme (3-6)	Nephritis; Hyperthyroidism; Hyperadrenalism; Hyperpituitaryism	6 hour G.T.T.; Liver function
Note: Add these 2 in one month if Hyperinsulinism (See graphs)						
BUN	Adults: 10-20mg% Children: 10-20mg%	Protein pwr. Protefood(2-3) Hepatrophin (3-6) Betacol (2-3) Inositol (3) Choline (3)	Pregnancy; Acute hepatic necrosis; dietary indiscretion	Less meat/beef Albaplex (4-8) Renafood (4-8) (w/Hypertension) Cardiotrophin (w/CHF) (6)	Renal disease Starvation; CHF; Acute inflammation; Diabetes mellitus; Mental clouding; Confusion; Disorientation	
Uric Acid	Adult (02.0-7.8 02.0-6.5 Children: 2.2 - 5.3mg%	Vitamin B12 (9) Ferrofood (3) (w/P.A.) Cyro-yest(4) (w/celiac disease)	Pernicious Anemia; Celiac disease	2 qts. water no organ meats organic minerals (3-6)* Betacol(2-3)* AC carbamide(1-2tsp)* +w/Gout Arginex (6)** Albaplex (6)** **w/Nephritis	Eclampsia; Nephritis; Gout; multiple myeloma; Leukemia; Pb poisoning	Hair analysis liver function test RA latex
Creatinine	Adults: 0.5-1.4mg% Children: 0.4-1.2mg%	Neurotrophin(3) Super-Eff (3) Inositol (6) Circuplex (6) Protefood (6) Calcifood (2 tsp.) Vitamin E (3)	Depressed Renal Output; Muscular/nervous disorders	Less meat/beef Albaplex (6) Arginex (6)	BUN; Urea; Nephritis	

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Total Bilirubin	Adults: 0.1-1.0mg/100ml Children: 0.2-0.8mg%	Safflower Oil (2 Tbs.) Ferrofood (3) Super-Eff (3) Thymex (6) Cholacol (6)	Gallbladder function	Mandrake Tea (2 cups) Hepatrophin (3-6) Betacol (2) ACP (3-6) Complex G (2-6) Vitamin B (1-3) Note: 3 Protefood with Repair.	Cirrhosis; Acute hepatitis; (Thymex 1-4) (A-F Betafood 1-4)	Indirect and direct Van Den Burgh to check for obstructive vs hepatic jaundice.
Direct Bilirubin	Adults: 0.1-1.0mg%	Cholacol (6) Safflower Oil (2 Tbs.) Ferrofood (3) Super-Eff (3) Thymex (6)	Gallbladder function	Mandrake Tea (2 cups) AF Betafood (9) Choline (9)	Cirrhosis; Acute hepatitis	See total Bilirubin
Total Protein	Adults: 6.0-8.0mg%	Protein Pwdr. (4-6 Tbs.) Protefood (3) Betaine Hcl(6) Albaplex (9) Zypan (6)	Albuminurea; Nephritis; Malabsorption	Less meat Protefood (1-3) Drink Water	Dehydration; Blood volume	Electrophoresis; Heidelberg gastric analysis
Albumin	Adults: 3.2-5.6mg%	Albaplex (9) Zypan (6) Comfex-pepsin (6) Nutramere(9) Betacol (3)	Nephrosis/ Nephritis; Liver Disease; Eclampsia; Edema	Fewer Eggs Protefood (1-3)	BUN	Electrophoresis
NOTE: with increased albumin or total protein w/ decreased BUN: add Protefood(1-3)						
Globulin	Adults: 1.3-3.5mg%	Thymex (3) Complex T(6)	CBC	Zypan (6) Protein Powder	Dehydration	Electrophoresis
Cholesterol	150-225mg%	1 pt. carrot juice Betacol (3) Drenamin (9)	Hyperthyroidism CHF; Liver disease; P.A.; Menstruation & postpartum	AF Betafood (6) No heated oils Phosfood liquid 15 drops Cyruta (6) Cholaplex (6)	Hypothyroidism Diabetes; Chronic Glomerulonephritis	Thyroid function G.T.T.; HDL

Heart disease is the leading cause of death in the U.S., and serum cholesterol has long been accepted as a major culprit in the development of atherosclerotic disease. However, recent findings from the Framingham Heart Study and other research groups in San Francisco, Albany, Evans County, Georgia and Hawaii are forcing a reassessment of blood lipid risk factors. Data from these studies suggest that total serum cholesterol can no longer be viewed as adequate in evaluating heart risk factors, particularly in patients over age 50, and that HDL cholesterol may be the single most useful test for predicting coronary artery disease.

WHAT IS HDL CHOLESTEROL?

Total circulating cholesterol is composed of two major fat packets--the high-density lipoprotein (HDL) fraction which appears to be protective against coronary heart disease, and the low-density lipoproteins (LDL, VLDL) which, at elevated levels, are predictive of coronary heart disease. At birth, about 50% of total cholesterol is in the high-density lipoproteins. Age, ingestion of the typical American diet, sedentary life style and other constitutional factors increase the low-density lipoproteins until eventually, only 25% of the total cholesterol is the protective HDL with the remainder being the more atherogenic lipoproteins. Both HDL cholesterol and LDL cholesterol are excellent predictors of coronary risk, but they predict from opposite directions.

Low HDL Cholesterol — High Risk — High LDL Cholesterol
High HDL Cholesterol — Low Risk — Low LDL Cholesterol

Since higher levels of HDL cholesterol are PROTECTIVE against coronary heart disease (CHD), it naturally follows that low levels of HDL cholesterol are PREDICTIVE of CHD.

HOW DOES HDL CHOLESTEROL "PROTECT"?

Metabolic studies indicate at least two possible mechanisms to explain the beneficial effects of HDL cholesterol. Miller & Miller in Lancet, 1976, presented evidence that HDL cholesterol acts as a receptor for transport of cholesterol from peripheral tissues to the liver where it is metabolized and excreted. The higher the HDL concentration, the better this mechanism seems to work.¹ It also appears that HDL may block cellular deposition of LDL cholesterol in peripheral tissues.² Briefly then, HDL cholesterol appears to exert its' protective effect by--

- o TRANSPORTING CHOLESTEROL FROM PERIPHERAL TISSUES TO THE LIVER FOR DEGRADATION
- o INTERFERING WITH THE CELLULAR DEPOSITION OF LDL CHOLESTEROL

AID TO INTERPRETATION OF HDL CHOLESTEROL RESULTS

When both total serum cholesterol and HDL cholesterol are measured, certain combinations of results either reinforce each other, or suggest further workup. Tables I and II are intended as aids in interpreting these results and should be used in conjunction with sound clinical information and judgement.

TABLE I

TOTAL CHOLESTEROL	HDL CHOLESTEROL	POSSIBLE CLINICAL SIGNIFICANCE (Based on Framingham & Other Studies)
↑	↓	HIGH RISK FOR CORONARY HEART DISEASE
N or ↓	↑	LOW RISK FOR CORONARY HEART DISEASE
↑	↑	LOWER RISK THAN PREVIOUSLY ANTICIPATED WITH ELEVATED TOTAL CHOLESTEROL*
N or ↓	↓	HIGHER RISK THAN PREVIOUSLY ANTICIPATED WITH NORMAL OR LOW TOTAL CHOLESTEROL**

↑ = INCREASED ↓ = DECREASED N = NORMAL

* Suggests further investigation—was patient fasting, steady body weight, no unusual stress? What is triglyceride level? Is there an abnormal hyperlipoproteinemic phenotype—IIa, IIb, or III?

** HDL Cholesterol studies indicate these patients should be viewed as at high risk. Weight reduction, diet, exercise or drugs may be therapeutically beneficial.

Dr. William P. Castelli, Director of Laboratories, Framingham Heart Study, has suggested a Risk Index for various levels of both TOTAL cholesterol and HDL cholesterol. Risk is compared to a standard with an index value of 1.00. By multiplying the Risk Index for TOTAL cholesterol by the Risk Index for HDL cholesterol in a given middle-aged patient, the probable risk of developing coronary heart disease (CHD) can be estimated.

Example: A male with a TOTAL cholesterol of 260 mg/dl and an HDL cholesterol of 25 mg/dl has a risk index of 2.00 X 2.00 or four times the standard risk of developing CHD.

TABLE II

TOTAL CHOLESTEROL mg/dl	CHD RISK INDEX	HDL CHOLESTEROL mg/dl	CHD RISK INDEX	
			MEN	WOMEN
OR 150 LESS	*	70		0.52
185	0.667	65	0.45	0.64
200	0.75	60	0.55	0.80
210	0.80	55	0.67	1.00 (Standard Risk)
220	0.90	50	0.82	1.25
225	1.00 (Standard Risk)	45	1.00 (Standard Risk)	1.55
244	1.50	40	1.25	1.94
260	2.00	35	1.50	
300	3.00	30	1.75	
		OR 25 LESS	2.00	

* NO NUMERICAL VALUE CAN
BE GIVEN

SAMPLE TOO SMALL FOR
ACCURATE PREDICTION

HOW TO INCREASE HDL CHOLESTEROL LEVELS?

Although data in this area are less conclusive, certain therapies appear to increase HDL cholesterol levels.

- DIET — Emphasis on vegetables, cereals, fish.
Diets low in salts and nitrites. Little
meat. No junk foods.
- DRUGS — In vivo, both clofibrate and nicotinic
acid raise HDL levels.

EXERCISE — There is strong evidence that increased physical activity is correlated to a positive effect on blood lipids.

In the face of depressed HDL cholesterol levels, the practitioner should also use other therapeutic measures with which he has had success in treating atherosclerotic cardiovascular disease.



The average HDL cholesterol for men is 45 mg/dl and for women 55 mg/dl. This may be a reason that women have lower rates of CHD than men.

ONLY OVER 50?

Although the protective effect of elevated HDL cholesterol has been most extensively studied in populations over age 50, many investigators believe HDL levels should be determined in every age group. Dr. Castelli of Framingham states that measurement of total serum cholesterol and HDL cholesterol in the cord blood of newborns could identify one of every 20 babies who should be put on a soybean-formula milk. Recommendations have been made that women should be tested prior to initiating oral contraceptive therapy and again one month later. It has been demonstrated that diabetics, who have an increased risk of coronary disease, have lower HDL cholesterol levels than non-diabetics.

HDL CHOLESTEROL — ALONE OR COMBINED?

It is important to compare total and HDL cholesterol in order to better evaluate coronary risk. For example, a patient with normal to low cholesterol and a 25 mg/dl HDL cholesterol is probably at high risk. Conversely, patients with high total cholesterol and high HDL cholesterol levels may be at lower risk than previously suspected. A lipid profile based on HDL cholesterol, total cholesterol and triglyceride is a preferable method of measuring the CHD risk associated with lipid characteristics. In hyperlipidemic patients, lipoprotein phenotyping can provide even more specific diagnostic information to assist in initiating preventive or corrective measures.

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NOTE: ALL DOSES ARE A DAILY DOSE UNLESS OTHERWISE INDICATED						
Phosphorus	Adult: 1.8-2.6mEq/L. or 3.0-4.5mg% Children: 2.4-4.1mEq/L. or 4-7 mg%	Vitamin D (3) 2 pieces of fruit daily Phosfood liq. (30 drops)	Hyperparathy- roidism; Osteomalacia; Hyperinsul- inism	Fewer carbo- hydrates Complex F (6) Calma-Plus (1) Drenatrophin (6) Drenamin (6) Vitamin C (6) Renafood (6) Arginex (6) Renatrophin (3)	Hypoparathy- roidism; Addison's disease; Kidney disease	Hair analysis
SGPT	Adults & Children 6-36 K.U./ml 5-24 I.U./ml	Carrot juice Vitamin A (3)	Liver function; Cirrhosis	Hepatrophin(3-6) Betacol (3) Protefood (2) Thymex (6)	Hepatocellular necrosis	
Sodium	Adult & Children 136-142 mEq/L Addison's disease-	Celery juice 6 oz.; eat vege. salt freely; Betacol (3) Hepatro- phin (3-6) (Vitamin C(6) (Drenamin(6) (Drenatro- phin (6)	Adrenal function; Pyloric stenosis; Chronic glomer- ulonephritis; Diabetes; Hepatic function;	No white salt Eat vege-it, vege-sal Spike or Dr. Bonner's Salts	CIIF;ACTH & Cortisone administra- tion; Hypoprotein- emia	Hair analysis; Electrolytes; (opposite distrib. of potassium)
Potassium	Adults & Children 3.8-5.0mEq/L. 3.6-5.5mEq/L.	Organic min- erals (3)	Acidosis; Adrenal therapy; Diarrhea;	No bananas; Decrease sodium; (Drenatro- phin (6) (Drenamin (6) (Vitamin C (6)	Fluorides; Adrenal function; Addison's disease	(opposite distrib. of sodium) Hair analysis; Electrolytes
Chloride	100.0 95-100mEq/L.	Eat vegetable salt freely Drenatro- phin (6) Drenamin (6) Vitamin C (6)	Diarrhea; Overwork; Meningitis; Lobar pneu- monia Incipient Addi- son's	No tap water Stop salt tablets	Urinary obst.; Hypertension; Glomeruloneph- ritis	Electrolyte balance
A/G Ratio	1.5 (1.1-2.5:1)	Adjust protein Zypan (6) Protefood (2) Comfrey- capsic (6)	Protein mal- assimilation	Adjust protein	Abnormal pro- tein metab.	Urinalysis; Electrophoresis

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Calcium	Adult: 8.5-10.8mg% 4.5-5.7meq/L Children: 9.0-12.0mg% 4.5-6.0mEq/L	Calcium lactate (8-12) Cal-Amo (3) Vitamin D (2) Vitamin C (3) Calma-Plus(1)	dietary fats; Osteomalacia; Renal function; serum albumin;	Vitamin F (6) follow hypoglycemia diet Betaine HCl (6) Thytrophin (3) Protfood (2)	Hyperparathyroidism	Hair analysis; monitor B.P.
SGOT	Adults: 6-40 units/ml 3-21 I.U./ml Children: 4 times Adult	Run in place 5 min. daily stop smoking Cardiotrophin (3-6)	Cardiovascular condition	Vitamin B (6) Vitamin E (6) (w/M.I.) Cardiotrophin (6) B6-Niacinamide (6)	M.I. @ 24 hrs. (500); Liver disease (600-2,000)	
LDH	165 (90-225mv/ml)	More exercise Stop smoking	Heart function Kidney function Liver function	More rest (8 hrs. daily minimum)	M.I.; Hepatitis; Pul. emb.; Malignancy;	Carbohydrate metabolism; Skel. musc.; Kidneys; Liver; RBC's; LDH isoenzymes
Alkaline Phosphate	4-13 KAU/100ml 1.5-4.5 BU/100ml 0.8-2.3 BI./ml 15-30 KAU/100ml 5-14 BU/100ml 3-9 BI./ml	Vitamin E (3) Thytrophin (3) Ferrofood (2) Cyroplex (3) Super-Eff (3)	Chronic Nephritis	Complex G (3) Ostogen (3) Bio-Dent (9) Cardio-Plus (6) Betacol (2)	Bone disease &/or fracture; Hepatic disease	
Triglycerides	10-190 mg%	Safflower Oil Complex F(6)	Hepatic function	Thytrophin (3) No heated oils Phosfood liq. (20 drops)	Hypothyroidism, Cholesterol	Thyroid function
T4	Normal Range varies	Thytrophin(3) Phosfood liq. (15 drops T.I.D.) Complex F(6) (Organic iodine) NOTE: Add organic iodine	Thyroid function	Organic iodine (1) Organic minerals (3-6) Calcium lactate (12) Antronex (6) Thytrophin (3)	Thyroid function	HDL

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Iron	Adults: 60-200mcg% Children: 55-185mcg%	Ferrofood (3) Betaine HCl(6) Vitamin C (6)	CBC; Gastric analysis	No raisins	Hemosiderosis	CBC
Total Lipids	Adults & Children 400-800 mg%	Safflower Oil Complex F(6)	Liver function Gall bladder function;	AF Betafood (6) Choline (6)	Cardiac function; Liver function;	
G-Glutamyl Transpepti- dase	10-20 mg%	Carrot juice Livaplex (3)	Liver function	Protefood (2) Betacol (3) No alcohol Complex G (6) Vitamin B (6) Fortified Cyrofood (9) Calcium Lactate (6-9)	Alcoholism	
WBC	4.8-10.8mm ³ If necessary	Vitamin C (3) Thymex (6) ACP (6-8) { Super-Eff(2-4) Ostogen (2-4) Vitamin E (3)	See differen- tial	Calcium Lactate (12) Congaplex (2 hourly) Thymex (6) ACP Complex (9)	Infection	
NOTE: Also check K, P, Cu, Mn, Zn, Co.						
RBC	Female: 4.6-4.8/mm ³ Male: 5.4-5.8/mm ³	Ferrofood (3) Chlorophyll(6) Ostogen (3) B-12 (3) Complex T(6) Spleen (3) Super-Eff (6) Protefood(3-6)	Anemias Note: Add in cases of anemia.	No raisins, Cu, Mn, K, P, Co, or Zn.	Anemias	
HGB	14.0-16.0gm%	Ferrofood (3) Betaine HCl(6) Complex T(3) Chlorophyll perles (6)	Anemias	No raisins, Zn, Cu, Mn, K, P, or Ca. Phosfood liq. (60 drops) Spleen (3) AF Betafood (6)	Anemias	

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HCT	42-47	Ferrofood (3) Betaine HCl(6) VitaminB-12(6)	Anemias	No raisins, Zn, Cu, Mn, K, P, or Ca.	Anemias	NOTE:
MCV	82-86	Ferrofood	Anemias	No raisins, Zn, Cu, Mn, K, P, or Ca.	Anemias	Add B-12 (3)
MCH	29 (± 2)	Ferrofood	Anemias	No raisins, Zn, Cu, Mn, K, P, or Ca.	Anemias	Complex T (6) Spleen (3)
MCHC	34.0 (± 2)	Ferrofood	Anemias	No raisins, Zn, Cu, Mn, K, P, or Cu..	Anemias	Super-Eff (6) Protefood (3-6) in cases of anemia.
Total Protein	6.0-8.0mg%	Protefood (2) Zypan (6) Albuplex (9) Protein Powder	Malabsorption; Nephritis; Cirrhosis; Albuminurea; Renal Loss; G.I. Disease; Hypogammaglo- bulinemia	Less meat	Dehydration; Blood volume	
Albumin	Adults and Children: 3.2-5.6mg%	Add 2 eggs/wk	Cirrhosis; Malignancy; Edema; G.I. Disease; Renal loss; Infections; Exudative di- sease; Hemor- rhage; Collegen disease	Fewer eggs	BUN	
NOTE: With increased Albumin or total protein with a decreased BUN, add Protefood (1-3)						

<u>LEUKOCYTES</u>	<u>RANGE</u>	<u>LOW SUPPLEMENTS</u>	<u>DECREASED IN</u>	<u>HIGH SUPPLEMENTS</u>	<u>INCREASED IN</u>
NOTE: ALL DOSES ARE A DAILY DOSE UNLESS OTHERWISE INDICATED					
Monocytes (Plasma cells)	0 - 9 %		Of no apparent clinical significance	Detoxification program if possible Use Bentonite Watch food combinations	Monocytic Leukemia; Brucelosis; Recovery from severe infection; Typhus; Exotic Diseases; Plasma cell Leukemia; Scarlet Fever; Chicken Pox; Multiple Myeloma; Serum reactions
Platelets	150,000 - 400,000/mm ³		Elevated altitude; Exercise; Malnutrition		Primary or secondary Purpura; Hemorrhagica Idiopathica; Thrombocytopenic Purpura; Polycythemia Vera; Hemolytic Anemia
NOTE: Clot Retraction is absent when the platelet count is 70,000/mm ³ or less.					
SED Rate (ESR) Definition: The ability of solid particles to remain in solution	Male: 0-15mm/HR Female: 0-20mm/HR		Agglutination or clumping cells; Increased Fibrinogen; Inflammation; Menses; Pregnancy; Cholesterol; (Check liver function); Acute inflammations; M.I.; Nephrotic syndrome; Rhumatoid Arthritis	a) <u>Primary Support:</u> Betacol (3) Complex T (6) Thymex (3) ACP Complex (6) Hepatrophin (3) b) <u>Secondary Support:</u> AF Betafood (3) Cholacol(3) c) If Biliary Disfunction & Malabsorption: Spleen (3) Chlorophyll Complex(3)	Phospholipids; Elevated serum albumin; check liver function

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Alpha 1 (Fats digestion)	0.3	Safflower Oil	Edema; Hepatic Necrosis; Alpha-1 Anti-Trypsin Deficiency	No heated oils	Tissue Necrosis Osteoarthritis Elevated Glyco- proteins Exudative Enter- opathy G.I. Disease Malignancy	
Alpha 2 (Protein digestion)	0.75	Vitamin C (3)	Hepatic Necrosis; Edema; Alpha-3 Globulinemia	Vitamin C (3) Thymex (3) Complex T (6)	Analbunemia Tissue Necrosis (infarcts) Collagen Disease Nephrosis Pregnancy toxemia Cushing's disease Sarcoidosis Acute infections Malignancy Chronic Glomerulo- nephritis Type IV Hyperlipi- demia	
Beta (Carbo- hydrate digestion)	0.90	2 fruits daily 1 grain daily	Ulcerative Colitis; Nephrosis; Edema; Often concom- ittant w/ diminished globulin	Fewer Carbohydrates	Analbunemia Diabetes Lipoidosis Hypothyroidism Obstructive Jaundice Hepatic Cirrhosis Sarcoidosis Regional Enteritis Some Lymphomas & Malignancies Hypercholesterolemia Type II Hyperlipidemia	

NOTE: ALL DOSES ARE A DAILY DOSE UNLESS OTHERWISE INDICATED

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NOTE: ALL DOSES ARE A DAILY DOSE UNLESS OTHERWISE INDICATED						
Gamma (Immunity)	1.10	Vitamin C (3)	Nephrosis; Hypogammaglo- bulinemia; Cushing's disease; Infants 1-12 months; Lymphomas; Lymphatic leukemia & other malign- ancies	Vitamin C (3) Thymex (3) Complex T (6)	Analbuminemia Hepatic Necrosis Infectious Mononucleosis Chronic infections Leukemia Myeloma Some Carcinomas Cryoglobulins Macroglobulins Collagen Disease Leukemoid reaction Early infancy Histiocytosis Hypergammaglo- bulinemia Purpura Autoimmune Disease	

LOW
DECREASED IN
HIGH

LEUKOCYTES **RANGE** **SUPPLEMENTS** **SUPPLEMENTS** **INCREASED IN**

NOTE: ALL DOSES ARE A DAILY DOSE UNLESS OTHERWISE INDICATED

Neutrophils (Phagocytes)	54 - 62%	B-12 (3)	Bone Marrow Damage; Lupis Erythmatosis; Splenomegaly; Anaphalaxis; Typhoid & Malaria		Systemic Infections; Localized Infections; Metabolic Disorders; ie: Acidosis, Gout, Uremia, Eclampsia Drugs & Poisons; Acute Hemorrhage; Hemopoetic Disease; Physiologic Leukocytosis
Eosinophils (Acidophils)	1 - 3 %	Vitamin C (6)	Severe infections & recovery; Shock; ACTH injections; Epinephrine injections	B-6/Niacinamide (6) Wheat Germ Oil (3) Zymex II (3) Antronex (3) Allerplex (6)	Bone Disease; Parasitic Infection; Skin Disease; Neoplasm; Allergies (Respiratory); Poisons
Basophils	0 - 1 %		Hyperthyroidism; Hyperadrenalism	Complex T (3) Spleen (3) Ostogen (3) Betaine HCl (3)	Blood Diseases; Systemic Diseases; Toxicity Factor
Lymphocytes	25 - 33 %	Vitamin C (6) B-12 (3)	Myelocytic Leukemia Lupis Erythmatosis Neutrophilic Leu- kocytosis Acute Radiation Exposure	B-6/Niacinamide (3) Allorganic Trace Minerals (6)	<u>Elevated WBC Count:</u> Lymphatic Leukemia; Infectious Mononucleosis; Pertussis; T.B.; Congenital Syphillis; Rickettes; Thyrototoxicosis; Malnutrition; Measles; Bacterial Infection; <u>Normal WBC Count:</u> Pernicious Anemia; Goucher's Disease; Thyphoid Fever; Undulent Fever; Infectious Hepatitis; German Measles; Mumps

URINALYSIS

URINALYSIS: ITS INTERPRETATION AND TREATMENT OF FINDINGS

Presented by

William C. Loomis, D.C., B.A.

From Chiropractic Economics

The kidneys are responsible for the elimination of 50% of the toxins and metabolic waste accumulated within the body. In the event that a segment or portion of this intricately complex system should fail to function properly, a urinalysis can often reveal the difficulty prior to the events which lead to irreversible pathology and the possible loss of function.

DEFINITION: A qualitative and quantitative examination of the physical, chemical and microscopic aspects of urine, noting both the normals and the abnormal.

URINE COLLECTION: Since urine is an excellent culture medium for bacteria and its components are not stable, all specimens should be collected in chemically clean, preferably sterile, containers with tight-fitting lids.

The first morning specimen is the preferred specimen for routine urine examination, as night urine is less variable in dilution, more concentrated, and more acid than the day specimen.

METHODS OF PRESERVATION:

1. Refrigeration
2. Chemical Preservatives (increase the urinary specific gravity)

SOURCES OF ERROR:

1. Bacterially or chemically contaminated containers.
2. Wrong or inadequate preservative.
3. Inadequate mixing of specimen before examination.
4. Careless measuring of the 24 hour volume.

PHYSICAL EXAMINATION:

1. Volume... (amount)
2. Color
3. Character... (transparency)
4. Odor

VOLUME:

Newborns:	Birth - 3 days...20-50 ml/24 hrs.
	5-10 days...100-350 ml/24 hrs.
Children:	1 year...300-600 ml/24 hrs.
	10 years...1000-1500 ml/24 hrs.
Adults:	1000-1800 ml/24 hrs.

ABNORMAL CONDITIONS:

1. Anuria (complete suppression)
2. Oliguria (decreased volume) due to: Dehydration due to diminished water intake, lower nephron nephrosis, acute Bright's disease, uremia, floating kidney, kidney stones.
3. Polyuria (increased volume) due to: Excessive fluid intake, chilling of skin, primary hyperaldosteronism, hyperparathyroidism, epileptic, or migraine attacks, mental disorders, chronic kidney disease.

COLOR:

1. Normal--some shade of yellow (straw to amber) with variation due to concentration.
2. Low specific gravity -- straw color.
3. High specific gravity--deep orange also influenced by metabolic products, foods, drugs and pigments.

Some other abnormals would be:

1. Silvery sheen--due to pus, bacteria or epithelial cells.
2. Yellow foam--due to bile or medication.
3. Smokey brown--due to blood.
4. Milky--due to large amounts of pus, bacteria or chyle.

ODOR:

1. Fruity odor--presence of acetone as in: diabetes mellitus, starvation, dehydration.
2. Ammoniacal odor--due to: decomposition.
3. Mousey odor--in phenylketonuria.
4. Offensive odor--bacterial action in presence of pus.

Some foods and medications effect odor: garlic, asparagus, menthol.

CHARACTER:

(Transparency) clear, hazy, cloudy.

1. Normal -- clear
2. Clouding -- may be due to: amorphous phosphates and carbonates, urates, oxalates, pus, blood, epithelial cells, bacteria, fat, chyle.

CHEMICAL EXAMINATION:

Tests for:

- | | |
|--------------------------------|-----------------|
| 1. Specific gravity | 5. Ketones |
| 2. pH | 6. Bilirubin |
| 3. Sugar (glucose) *Clini Test | 7. Occult blood |
| 4. Albumin *S.S.A. Test | |

SPECIFIC GRAVITY:

1. DEFINITION:

The weight of a substance compared with an equal volume of another substance taken as a standard (pure water).

In the case of urine, it is a measure of the concentrating and diluting power of the kidney, reflecting the weight of the total amount of dissolved material solids excreted. Read the specific gravity from the graduated stem of a urinometer. Take care to make the reading at the bottom of the meniscus and be sure that the urinometer is not in contact with the side of the tube by spinning it. (Urinometers are standardized to give accurate readings only at specific temperatures. If the temperature of the urine is above or below the specified temperature a correction of 0.001 for each 3 degrees C. must be added to or subtracted from the reading).

Specific Gravity -- normal values (isosthenuria)

Adults 1.010 -- 1.025

a. Increase of specific gravity (hypersthenuria) indicates: decreased fluid intake, acute nephritis or damage to kidneys and lower urinary tract, fever, x-ray contrast media, dextran administration, intravenous albumin, urinary preservatives, diabetes mellitus.

2. Decrease of specific gravity (hyposthenuria) indicates: increased fluid intake, alkalosis, chronic nephritis (progressive kidney failure), hypothermia, sickle cell anemia, chronic diabetic insipidus.

pH: Reaction (hydrogen ion concentration)

The urinary pH is an expression of the free hydrogen ion activity (concentration) and indicates the degree of acidity or alkalinity by number. Seven is neutral, below seven is acid, above is alkaline. Normal is about 6.0. Varies from 5.0 to 6.5. Normal metabolism produces an excess of acids (Hions) thus keeping the urinary pH acid to combat bacteriuria and to prevent the formation of alkaline stones such as calcium carbonate or calcium phosphate stones.

1. ACID URINE: due to starvation, high protein diet, fat metabolism, drugs, acid producing bacteria, metabolic and respiratory acidosis and sleep, fevers, low intake of fruits and vegetables, diabetes mellitus, diarrhea, dehydration, pulmonary emphysema.

Note: Low bodily intake of fruits, vegetables, and other alkaline foods is usually associated with high acidity (the usual cause of high acidity).

2. **ALKALINE URINE:** due to vegetable diet, drugs, metabolic and respiratory alkalosis, ammonia producing and urea splitting bacteria. Bladder, inflammation, directly after eating, or drinking of mineral waters often results in low acidity, Chronic cystitis, certain genitourinary tract infections, pyloric obstruction.

NOTE: The usual cause of high acidity is too low intake of water, too much eating of meats and other heavy foods. However, the pH determination of the urinary tract does give the possible clinical significance of: calculus, urinary tract infections, metabolic disorders such as gout.

SUGAR (Glucose):

The appearance of sugar in the urine is a condition calling for close and continued observation. Many types of conditions can affect the increase or presence of sugar in the urine in the carbohydrate metabolism process. Sugar intermittently appearing in the urine calls for the elimination of all starchy foods and sweets (carbohydrates) for a while. Although the first appearance of sugar is not pathognomic of diabetes, the persistent appearance of sugar in the urine means diabetes.

Possible clinical significance:

diabetes, following general anesthesia, shock, head (brain) injuries resulting in intracranial pressure, pituitary disorders, after coronary thrombosis is, strong emotional disturbances, liver damager, asphyxia (CO poisoning), ingestion of excessive amounts of carbohydrates, pancreatitis.

ALBUMIN (Protein):

The appearance of protein in the urine usually is indicative of renal disease or an associated condition that affects the renal circulation. Only a very small quantity of protein can be detected in the urine of normal persons, (7.5 mg/100ml= negative; up to 20 mg/100ml=trace; above 20 mg/100ml is positive). With renal disease plasma proteins are excreted in the urine in amounts that are roughly proportional to the severity of the renal injury and are easily detectable as a cloudy coagulation when the urine is acidified and heated. Since albumin makes up the bulk of the small protein molecules in the blood, it dominates the urinary protein pattern and for this reason the loss of protein of urine is often referred to as albuminuria, although other proteins are present. When found the SSA Test or the Sulfosalicylic Acid Test (quantitative test for protein) should be obtained as quickly as possible to determine extent or damage, and long-term medical follow-up is mandatory for all patients with nephrotic syndromes, including those who have

clinic remissions.

1. False albuminuria may occur in excessive bleeding, prolonged cold baths or exposure to cold, strenuous exertion, excessive ingestion of protein.
2. True albuminuria may be associated with kidney lesions (disorders) such as glomerulonephritis, Kimmelstiel-Wilson syndrome, renal vein thrombosis, Bright's Disease, neoplasms of the kidney, etc; Warns of renal infection, diabetic nephropathy, eclampsia, preeclampsia, fevers, anemia, blood pathology, toxemia of pregnancy, poisoning, tuberculosis, Collagen diseases, cardiac failure, liver diseases, febrile states, amyloidosis, gout, disseminated lupus erythematosus, and polycystic kidney.

NOTE: Therapy aims at elimination of renal disease, correction of edema, bed rest, and looking to previous point of infection for point of cure to distinguish which condition to treat as major to eliminate kidney symptoms.

KETONES (Acetone)

Ketone bodies consist of acetoacetic acid, Betahydroxybutyric acid and acetone. In small amounts (the normal range for Ketone bodies in urine is 125mg/24 hrs., these substances appear together normally as intermediary compounds of fat metabolism. If liver glycogen is depleted, the oxidation of these compounds are arrested so that they accumulate in the blood (ketonemia) are excreted in the urine (ketonuria) and lead to a general condition called Ketosis. In Ketosis this concentration of ketone bodies may increase from the normal amount of 125 mg/24 hrs. to 50 mg/24 hrs. If urine contains glucose, always test for ketones.

Excess may be due to:

diabetes (Diabetic coma or acid intoxication of diabetes), starvation, fevers, prolonged vomiting, toxemia of pregnancy, severe diarrhea, von Gierk's disease (liver glycogen disorder), high fat diet, low carbohydrate diet or disorders of carbohydrate metabolism which would involve digestive disturbances (G-intestinal disorders); severe fasting, dehydration, ketogenic diets, cancer (carcinoma) anorexia and anesthesia, and excessive insulin therapy.

BILIRUBIN:

A yellow pigment which is probably derived from the hemoglobin in the phagocytic cells of the reticuloendothelial system,

notably in the spleen, bone marrow, liver and lymph nodes. This yellow pigment colors the blood plasma a faint yellow. From the blood it goes to the liver cells which secrete it as "free" bilirubin into the bile. Some of the bile is stored in the gall bladder, the remainder in the intestines where it undergoes various conversions to a pigment called urobilinogen, excreted in the stools. Trace amounts of this pigment (less than 2 mg/100 ml are excreted by the kidneys and are found in the urine. Test is positive if 2 mg/100 ml or above).

Seen in:

Chronic and acute hepatitis, infectious hepatitis, infectious mononucleosis, hyper thyroidism, septicemia, gall stones, tumors, cirrhosis, drug induced or alcohol hepatitis, yellow fever, jaundice and other liver diseases -- all causing intra or extra hepatic obstruction. Excessive destruction of erythrocytes, pernicious anemia and congestive heart failure.

OCCULT BLOOD (Hematuria):

The presence of blood that cannot be detected except by special chemical test.

Causes of hematuria:

1. Kidney diseases: glomerulonephritis, pyelonephritis, tumors, polycystic, infarcts, tuberculosis, trauma, necrotizing papillitis.
2. Blood diseases: thrombocytopenia, leukemia, hemophilia, sickle cell trait.
3. Drugs
4. Chemical poisons
5. Bladder diseases: cystitis, tumors, prostatic hypertrophy.
6. Iatrogenic: catheterization.
7. Hemolytic transfusion reaction, electric current injury, severe burns and exposure to sudden cold may all produce hemoglobinuria.

Renal and urinary infections, calculus, neoplasm, benign tumors, trauma, hemolytic diseases, therapy with anticoagulant drugs, severe burns, disorders accompanied by excessive cell destruction, chronic infection, ulcerations, and acute inflammations.

MICROSCOPIC EXAMINATION:

Urinary sediment must be centrifuged.

- | | |
|-----------------|---------------------|
| 1. Leukocytes | 4. Epithelial cells |
| 2. Erythrocytes | 5. Crystals |
| 3. Casts | |

LEUKOCYTES:

1. Normal
 - (a) male 1/high power field
 - (b) female 1-5/high power field
 larger numbers indicate inflammation (pyuria)

ERYTHROCYTES:

1. Normal: '0' (negative)
2. Causes of hematuria:
 - (a) perenal -- indicating purpura infection and drug
 - (b) renal -- from inflammation, tumors, tuberculosis calculi, trauma to kidney
 - (c) Postrenal -- from inflammation, tumors and parasites of urinary bladder

CASTS:

1. Types:
 - (a) Granular casts
 - (b) Hyaline casts
 - (c) Renal failure casts
 - (d) Waxy casts; indicate amyloid and chronic kidney disease
 - (e) Fatty casts
 - (f) Red cell casts; indicate renal parenchymal infection
 - (g) White cell casts: indicate renal parenchymal infection
 - (h) Epithelial casts

EPITHELIAL CELLS:

Male -- small numbers

Female -- larger numbers

CRYSTALS:

1. In acid urine:
 - (a) Calcium oxalate crystals
 - (b) Uric Acid crystals
 - (c) Amorphous urates
 - (d) Cystine crystals
 - (e) Tyrosine and leveine crystals
2. In alkaline urine:
 - (a) Ammoniummagnesium phosphate crystals
 - (b) Calcium carbonate crystals
 - (c) Ammonium biurate crystals
 - (d) Amorphous phosphates

TREATMENT:

1. Medical

The primary medical approach would be to look to the previous point of infection for point of cure to distinguish which condition to treat as major to eliminate kidney symptoms. Then undoubtedly an approach of bed rest, diet control, drugs or antibiotics that lead to the destruction of the bacterial infection, the endocrine control through the admission of hormones or enzyme chemicals, the use of drugs to control the pain or discomfort and the chemical alteration of increasing or decreasing the basic functions of the cardiac, liver, pancreas and kidney systems in order that function control is maintained and the body can adapt and repair itself. When drugs or etc.....fail the medical doctors find it necessary to perform surgery which is often the difference between life and death or on occasion fatal itself.

Other specific medical considerations:

KIDNEY SYNDROME: Bed rest until symptoms have disappeared, diet low in salt and protein, keep bowels open, free sweating with hot packs and baths, soft diet, no alcohol, local applications of heat to lumbar region.

SEVERE RENAL DAMAGE: Diet of fruit juices, tea or milk because of anorexia and nausea. When these symptoms abate then a more liberal diet (cereals, gruels, ice cream, fruit, bread) may be allowed. Only in the severest cases of acute nephritis, when nitrogen retention is pronounced, is there a need to restrict protein for more than a few days (to reduce urea formation). In most cases the patient can be back on a normal diet within ten to fourteen days. However, as long as edema or hypertension is present, sodium and salt intake should be sharply restricted (to inhibit and eliminate edema, reduce blood and interstitial fluid volumes and decrease hypertension by restriction of sodium intake). Fluid intake should be adjusted according to urinary volume. Severe oliguria requires reduction of intake since excessive fluids only increase the edema and may precipitate congestive heart failure. A workable rule is to allow 500 to 1,000 cc or more fluid daily than the volume of the previous day's urine.

NEPHROLITHIASIS (STONES): Hot bath, hot poultices and hot fomentations may be applied to lumbar region

and warm water given freely. Drink water freely to reduce the specific gravity of urine, may be helpful to reduce formation. The diet should consist largely of milk, carbohydrates, vegetables and a small quantity of meat. Foods rich in purins and oxalates should be avoided.

CYSTITIS: The cause should be removed. If acute, the patient should be placed in bed and a semi-soft diet, including milk should be ordered, care being taken to eliminate all highly seasoned foods. Hot applications over bladder and hot sitz bath possibly. THE USE OF WATER ONE OR TWO GLASSES HOURLY IS RECOMMENDED. If urine is highly acid change to alkaline foods or if alkaline change to acid foods.

LIVER: In acute congestion, induced by dietetic indiscretions, (all chronic cases) rest and a restricted food intake diet are necessary. Hot applications over the liver may be of value.

CHOLELITHIASIS (GALL STONES): Heat over area, olive oil and limit diet to orange juice and skimmed milk. Eliminate fats, chocolate and coffee from diet.

HEPATITIS: Patient should remain in bed while jaundice, abdominal pain and liver tenderness are present and until liver function tests show normal values. A minimum of three weeks bed rest is advisable and diet rich in proteins and carbohydrates, (low protein to reduce blood ammonia level in severe hepatic decompensation). Resume activity gradually.

NOTE: Long term medical follow up is mandatory for all patients with nephrotic syndrome, including those who have clinical remissions.

2. Chiropractic:

Adjust kidney place T10 - T12 for kidney dis-ease; pancrease place T6 for diabetic insulin and sugar metabolism; liver place T4 and T8 for hepatic insufficiency; L5 for bladder dis-ease; heart place T2 for cardiac insufficiency; adjust cervicals for ADH insufficiency, hyperparathyroid or mental disorders; other specific adjustment for point of infection or inflammation within the body.

After thorough evaluation of ALL findings, the Chiropractor must then determine the possibility of irreversible pathology (tumors and neoplasms, kidney and gall stones, dead and necrotizing scar

tissue with connective tissue replacement of vital organ tissue cells) and refer these to the medical profession for surgical evaluation and then determine the causative subluxation and carefully adjust this causative subluxation to thereby remove interference with nerve transmission thus giving the vital life force the ability to regulate and control the vital organs and tissues and to properly utilize the bodies defense mechanism systems.

The Chiropractor will decide on an individual level whether to suggest "rest", refraining from heavy lifting, elimination of hard drinks or diet control (elimination of known and antagonistic foods), liquid consumption, additions of dietetic aids or food supplements to enhance the faulty diet intake of the past and the body's inability to utilize the food ingested. An adequate spinal exercise maintenance program and the discussion of do's and don'ts of faulty living habits and the instituting of a preventative maintenance program with periodic physical and chemical checks on body functions and coordinations.

(By permission)

HAIR ANALYSIS
INTERPRETATION

ELEMENTS

RANGE

LOW LEVEL

HIGH LEVEL

NOTE: ALL DOSES ARE A DAILY DOSE UNLESS OTHERWISE INDICATED

Calcium	Not standardized	6 Calcium Lactate on empty stomach 2 times daily or 2 tbs. calcifood powder. If phosphorous also low, add: Vitamin D (3) Betaine HCl (3)	Follow hypoglycemia diet <u>STRICTLY</u> 15 drops phosfood liquid 3 times daily NOTE: check thyroid and parathyroid function
Magnesium	"	No fluoridated water or fluoridated pro-3 chlorophyll complex or 3 organic ducts minerals	Follow hypoglycemia diet <u>STRICTLY</u> Allorganic trace minerals (2)
Sodium	"	Drenatrophin (3) 8 oz. celery juice	No white salt (use vege-sal, veg-it) Organic minerals (3)
Potassium	"	Drenatrophin (3) 8 oz. celery juice Organic minerals(3)	Drenatrophin (3) No bananas Use vegetable salts freely Pancreatrophin (3) NOTE: check adrenal function
Copper	"	Vitamin C complex(6) Allorganic trace minerals (3)	Zypan (6) Allorganic trace minerals (3) Betaine hydrochloride (2) Ferrofood - if iron deficient (3) No apricots (may be due to IUD or "the pill")
Zinc	"	Allorganic trace minerals (3) Prostate (3) (use 3 pancreatrophin if glucose metabolism difficulties) Zypan (6)	Allorganic trace minerals (3) Vitamin C complex (6) No onions NOTE: Check pancreas function
Iron	"	Ferrofood (3) Allorganic trace minerals (3) Betaine hydrochloride (2)	Vitamin C complex (6) Allorganic trace minerals (3) No raisins NOTE: check spleen and bone marrow
Manganese	"	Manganese-B12 (6) Vitamin E complex (6) Allorganic trace minerals (3) (1 E-Manganese complex daily in extreme deficiencies only)	Eat fewer orange vegetables

HAIR ANALYSIS NUTRITIONAL BRIEFS

ELEMENTS RANGE

LOW

HIGH

NOTE: ALL DOSES ARE A DAILY DOSE UNLESS OTHERWISE INDICATED

Chromium	"	Cyruta (6)	Good
Phosphorus	"	Phosfood wafers (3)(OR 15 drops Phosfood liquid in 1/2 glass water 3 times daily) OR 2 Tbs. Calcifood powder daily (If Calcium and phosphorous both low)	Vitamin E (9) Zypan (6-8) Allorganic trace minerals (4) Calcium Lactate (12) (on empty stomach) Check thyroid and parathyroid function
Selenium	"	Vitamin E (3) Organic Minerals (3)	Use Vitamin E complex - Stop high dose Vitamin supplements.
Molybedlum	"	Eat more legumes, cereals, yeast (meats) Allorganic trace minerals (3) Vitamin E (6)	Fewer legumes, cereals, yeasts, meats.
Aluminum	"	Good	See general detoxification program Check for low phosphorous
Silicon	"	Anti-Gastrin powder 1 Tsp. 20 minutes prior to each meal w/ water. Thymus (3)	
Sulfur	"	Protefood (2)	
Iodine	"	Organic Iodine (1) (For replacement therapy) Iodomere (6) (Less concentrated than organic iodine for maintenance therapy)	Take patient off organic iodine and iodine supplements
Cobalt	"	Vitamin B-12 (3)	Vitamin C Complex (6) Vitamin B Complex (3) Betaine Hydrochloride (2) w/ea. meal

HAIR ANALYSIS NUTRITIONAL BRIEFS (con't.)

ELEMENTS

RANGE

LOW

HIGH

NOTE: ALL DOSES ARE A DAILY DOSE UNLESS OTHERWISE INDICATED

Nickel	"	Good	Apple Pectin, Basil & Burdock, Baked Beans, Allorganic minerals (3) Zypan (6) Vitamin E (6)
Lead	"	Good	Same as Nickel Vitamin E (6)
Arsenic	"	Good	Same as Nickel
Mercury	"	Good	Same as Nickel
Cadmium	"	Good	Same as Nickel Vitamin E (6)

NOTE: General Detoxification Procedure for Heavy Metal Poisoning:

Mintran - 4 TID on empty stomach

Bath: 1 lb. baking soda, 1 lb. kosher salt in tub of hot water. Soak 20 min. for 3 consecutive nights.

Basil & Burdock: 1 cup of each daily as a tea. Small portion of each blended into food.

Cholacol II - 4 tablets w/full glass of water 1 hr. before each meal.

Baked Beans: One serving every other day.

Natural Apple Pectin: 1 tsp. daily.

If no Cholacol II available, use Anti-Gastrin Powder. - 2 tsp., 1 hour before each meal.

NOTE: For mineral maintenance, use: Min-Tran as a balanced mineral supplement. Cyrofood powder - Cyrofood tablets (Fortified) - For additional support, *Allorganic trace minerals contain Cu, Fe, Mn, B-12, Zn, I, etc.

HAIR ANALYSIS

Mg High & K Low-- Tendency toward alkalosis.

K High & Mg Low-- Tendency toward acidosis.

Ca & Mg High-- Probable hypoglycemia, confirm with 6 hour glucose tolerance test.

Ca High and Mg Low-- Tendencies toward forming atherosclerotic plaques and Renal Calculi.

Ca High-- Indicative of rapid skeletal decalcification, occurs in Osteoporosis, Osteomalacia, Osteomyelitis & in some forms of cancer. Also found in people taking calcium gluconate, calcium lactate & those products may precipitate the above mentioned conditions.

Na & K Low-- Adrenal Stress- Found in many who work out in hot weather and perspire a lot.

K High & Na Low-- Classic adrenal fatigue pattern. Depressed blood pressure, possible Addison's disease.

Na High & K Low-- Classic hyperadrenia pattern. Elevated blood pressure.

Na High-- Subject may have a water softener. May indicate a niacin-niacinamide deficit.

Cr Low-- Possible insulin dependant diabetes. Diabetic like symptoms, Atherosclerosis, various circulatory and/or cardiovascular problems, sugar intolerance, including hypoglycemia. High serum cholesterol, opacities and vascularization of Cornea. Faulty fatty acid synthesis. Chromium is necessary to the integrity of the arteries.

Cr High-- Growth depressant, liver and kidney damage. Toxicity manifests at approx. 1 mg. per 100 grams body weight. The threshold of tolerance is much higher with the tri-valent type, and lower with the hexavalent type.

Mn & Zn Low-- Both are constituents of insulin and could cause an insulin deficit.

Cu Low-- Causes Zn to be overabsorbed & rising Zn forces Fe down (antagonist) and since Cu, Mn & Fe are closely related together, these three usually fall and Zn rises in Cu deficiency. Tests show that it is virtually impossible to permanently change these ratios.

Cu High-- Schizophrenia frequently occurs, hemolytic jaundice in sheep and cattle. Wilson's disease is a metabolic disorder and is not caused by Cu excess.

HAIR ANALYSIS (con't.)

Cu High and Zn Low -- Schizophrenia almost always results.

Fe, Mn & Cu -- The minerals usually rise and fall together as they are knit closely together.

Zn High -- Look for Low Cu. In Cu deficiency Zn rises, forcing Fe down, and Fe pulls Mn & Cu down with it. Hypochromic, microcytic anemia develops due to the decline of Fe levels.

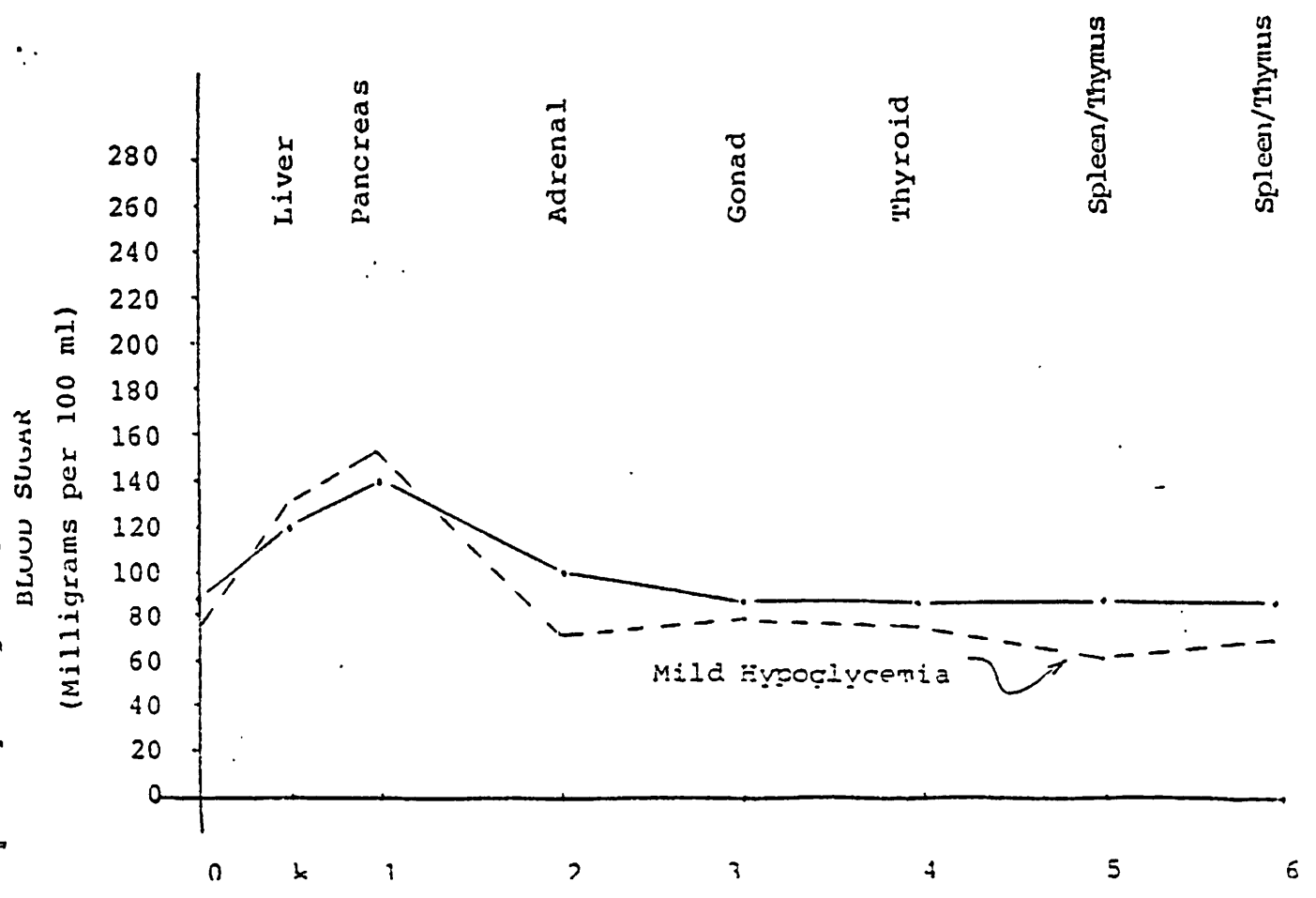
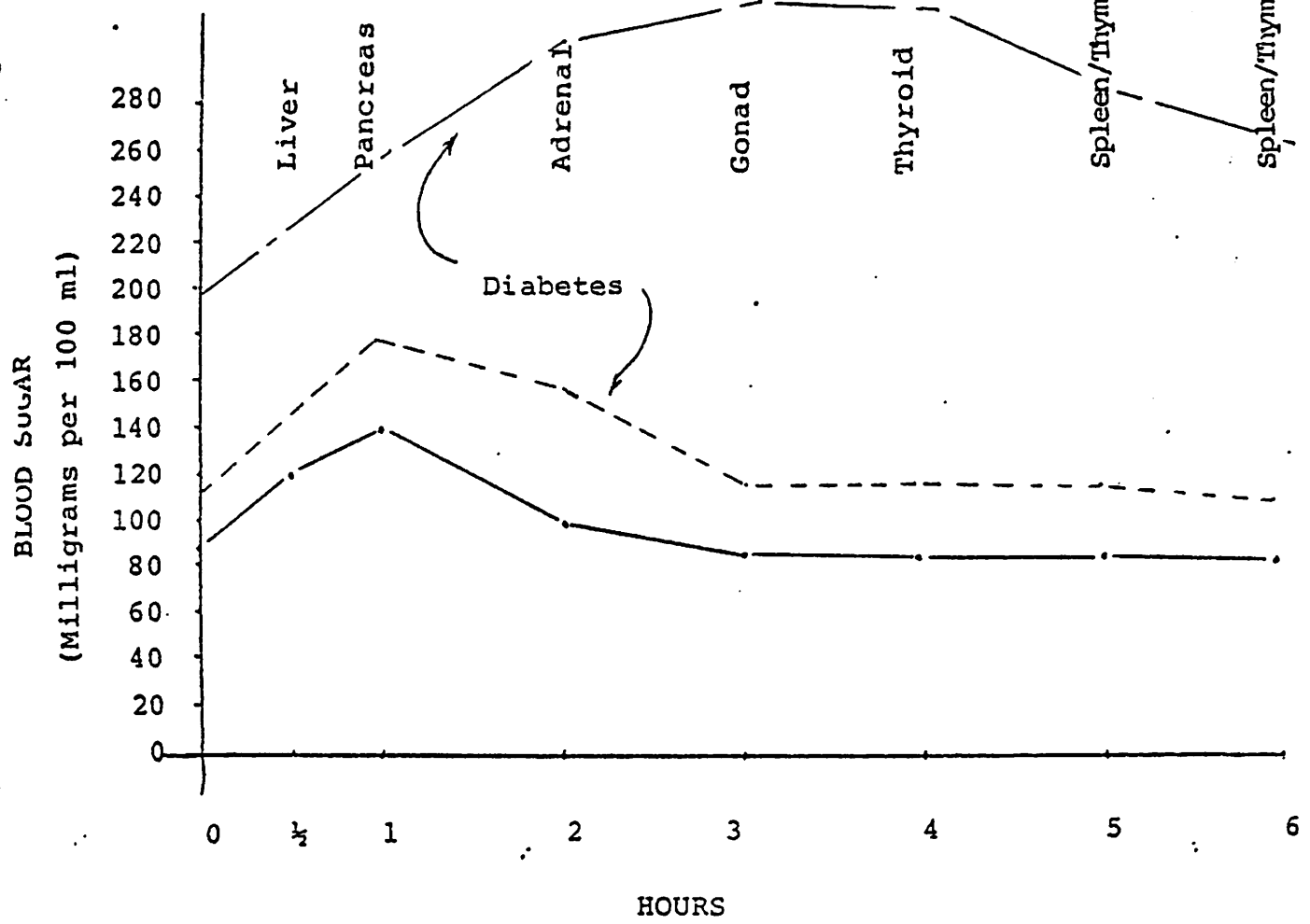
- ALUMINUM - Elevated with baking soda (depresses phosphorus), antacids, table salt, American cheese, anti-perspirants, kaopectate, toothpaste, tap water, aluminum cookware.
NOTE: magnesium should replace aluminum in the tissues. (20X lacopodium, alumina, ascorbic acid, all pull aluminum from the tissues.)
- CHROMIUM - increase may be due to refined and prepared food indigestion.
- CADMIUM - may be elevated with cola drinks, instant coffee, auto exhaust
- COPPER - elevations are seen with swimming pool algicides, IUD, birth control pills
- LEAD - may be elevated with hair color, (therefore obtain a pubic sample). Lead must not be eliminated too quickly or sickness will result. Lead and cadmium may replace zinc in enzyme systems, (this is known as Meyer's disease).
- MAGANESE - a deficiency may indicate epilepsy.
- MOLYBDENUM - a deficiency may indicate increased dental caries.
- MAGNESIUM - may be elevated with body or talc powders made with calomel, vaginal contraceptives, fabric softeners.
- SODIUM - along with POTASium and MAGNESIUM are effected most by lab washing of the hair.
- SELENIUM - a deficiency may lead to human heart conditions.
- ZINC - or SELENIUM values may be elevated by a dandruff shampoo.

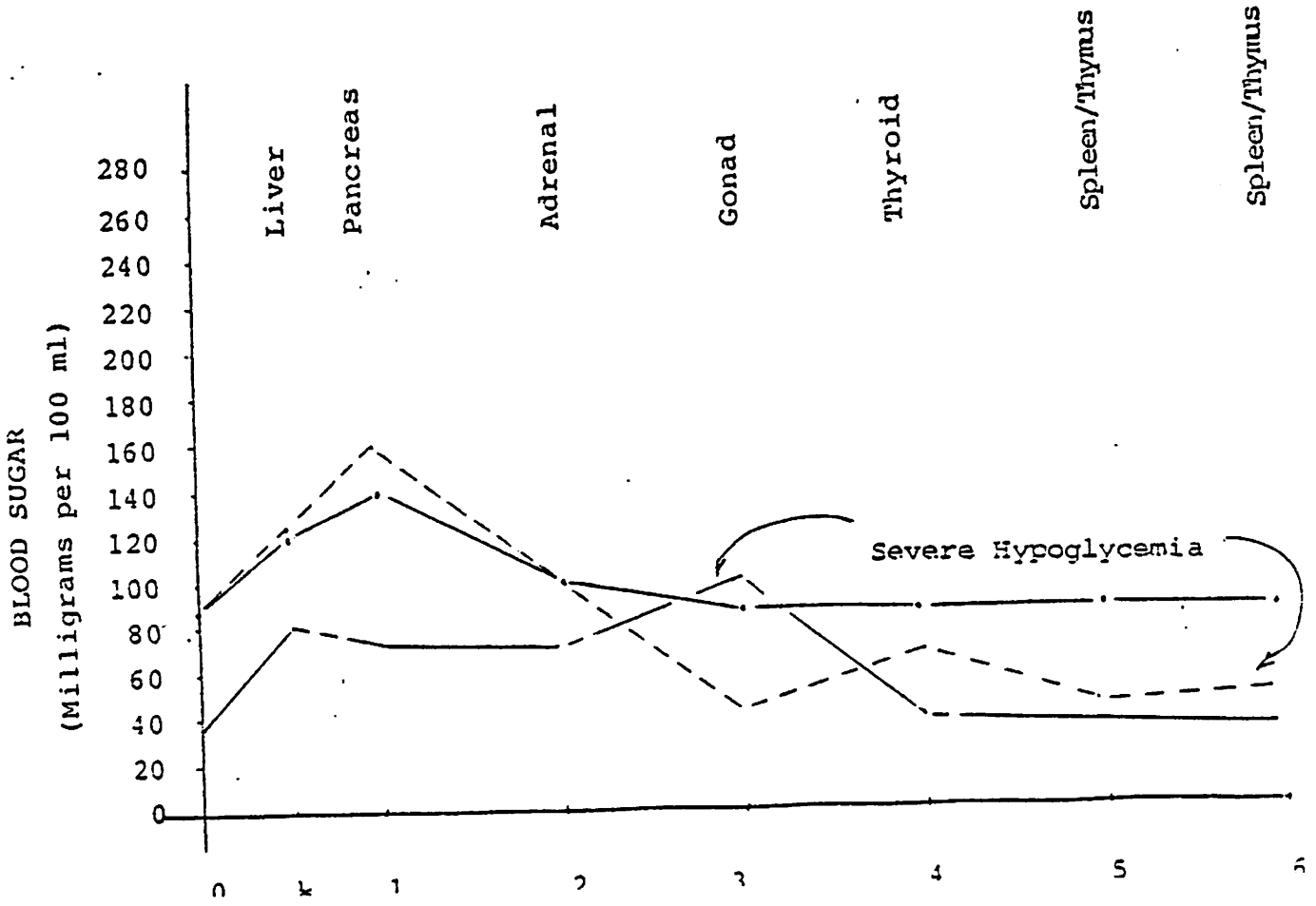
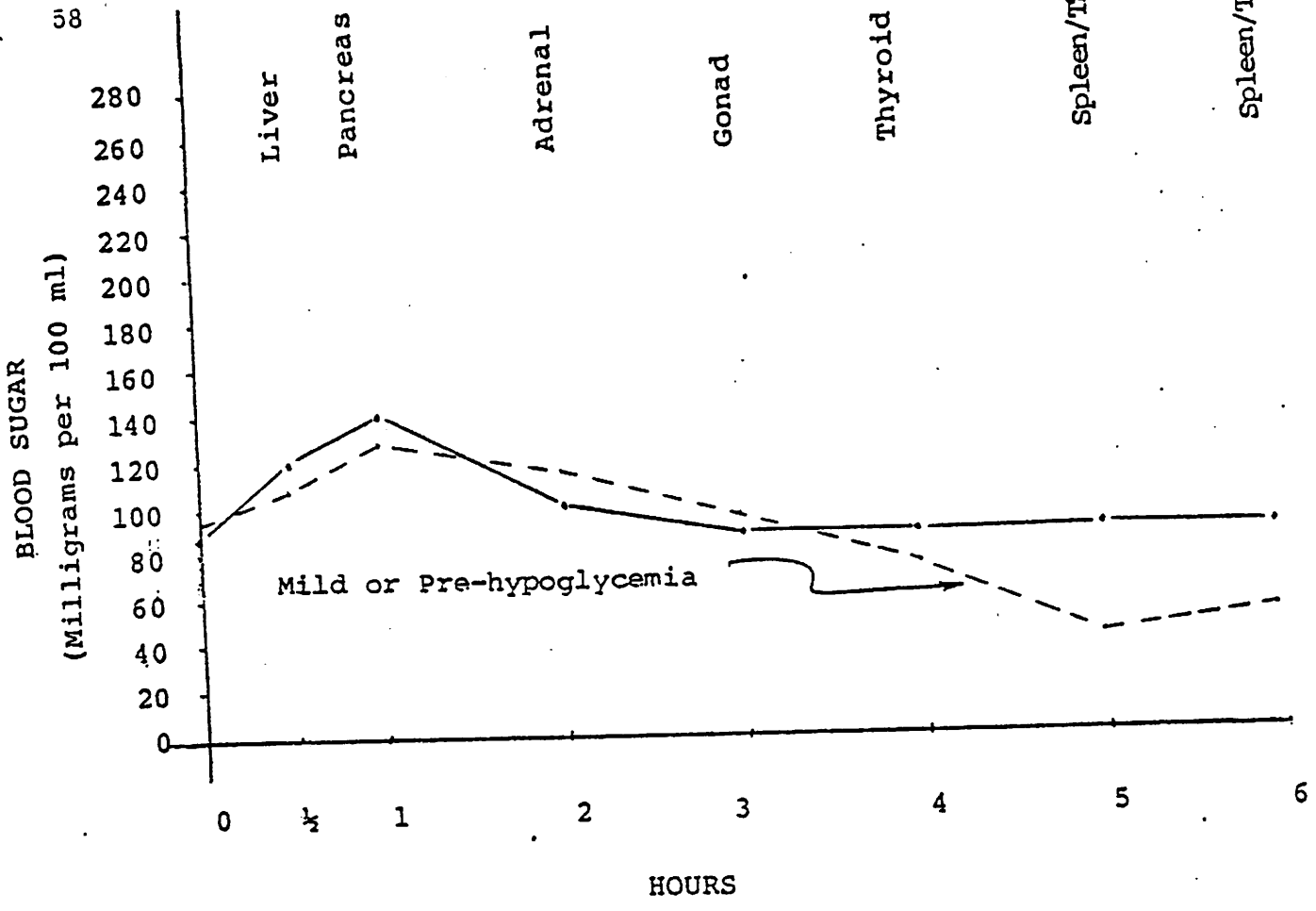
These heavy metals concentrate in these organs:

- Al - brain, liver, kidneys
Pb - nervous system, bone
Cd - nervous system, kidney
Hg - nervous system,

<u>RATIO</u>	<u>NORMAL VALUE</u>
Ca/P-----	10/4
Ca/Mg-----	8/10
Ca/K-----	4.0/8.0
Ca/Zn-----	2.0/6.0
Na/K-----	0.5/1.5
Fe/Cu-----	0.7/1.7
Zn/Mn-----	100/140
Zn/Cu-----	5.0/7.0
Zn/Fe-----	4.0/7.0
Zn/Cr-----	100/200

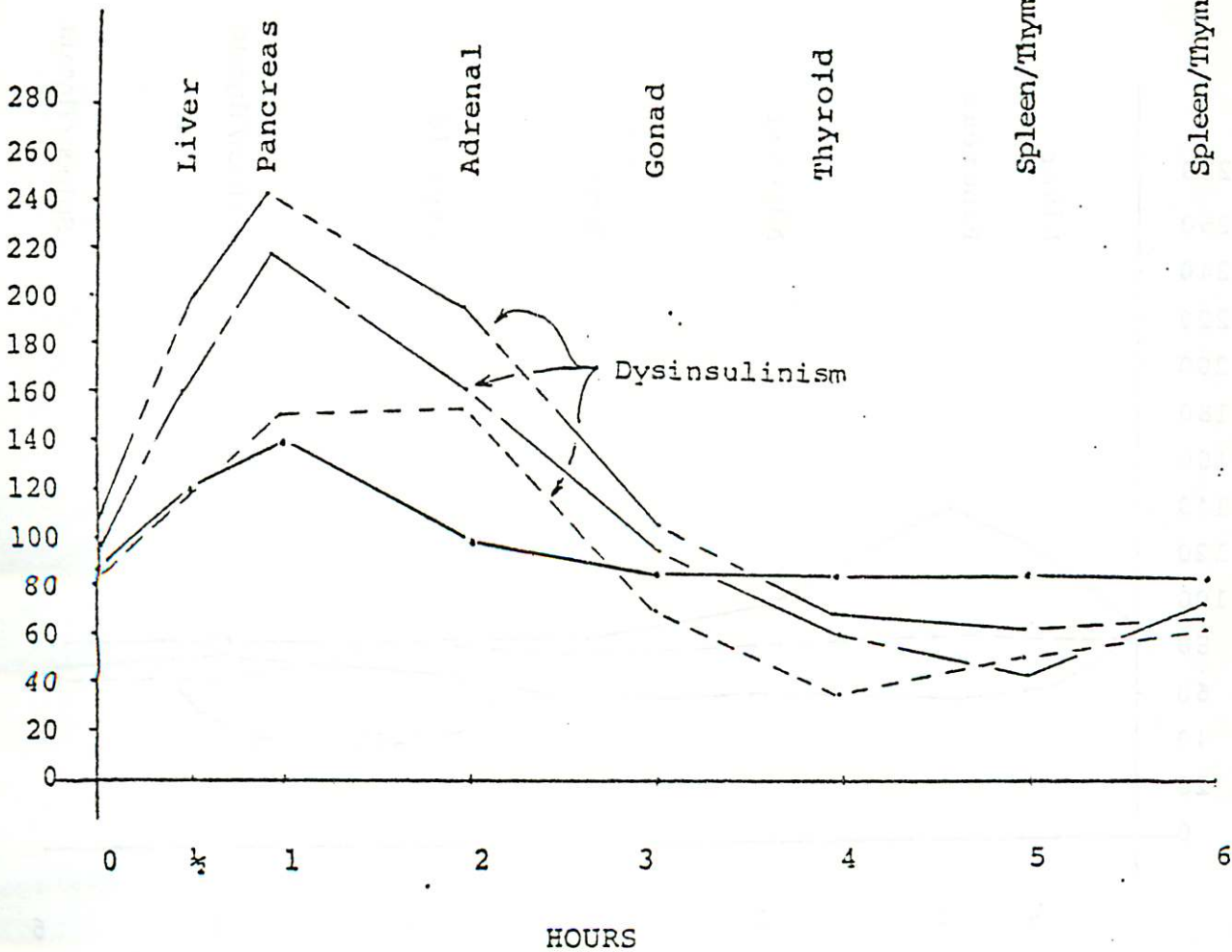
GLUCOSE TOLERANCE TEST
INTERPRETATION





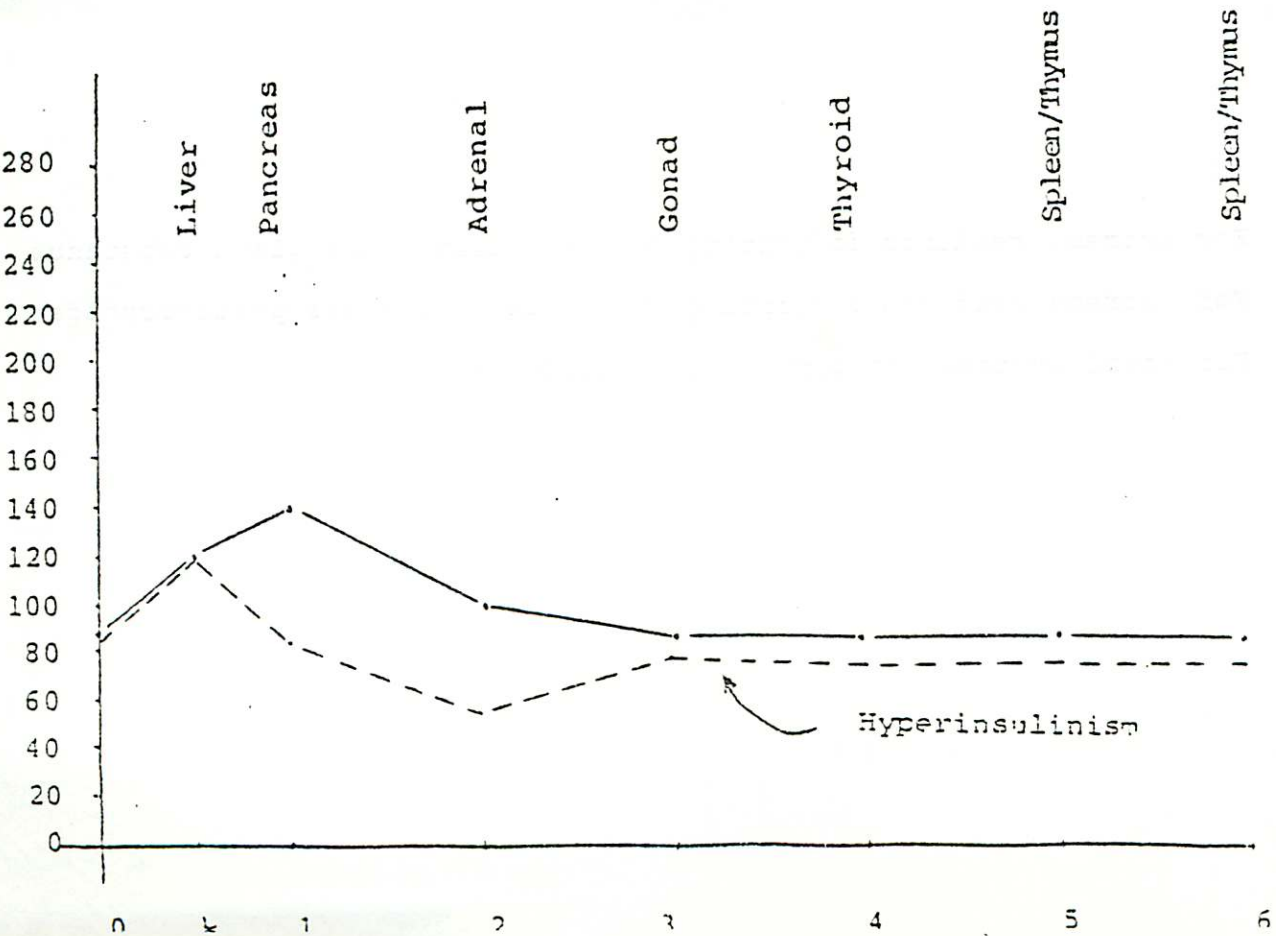
BLOOD SUGAR

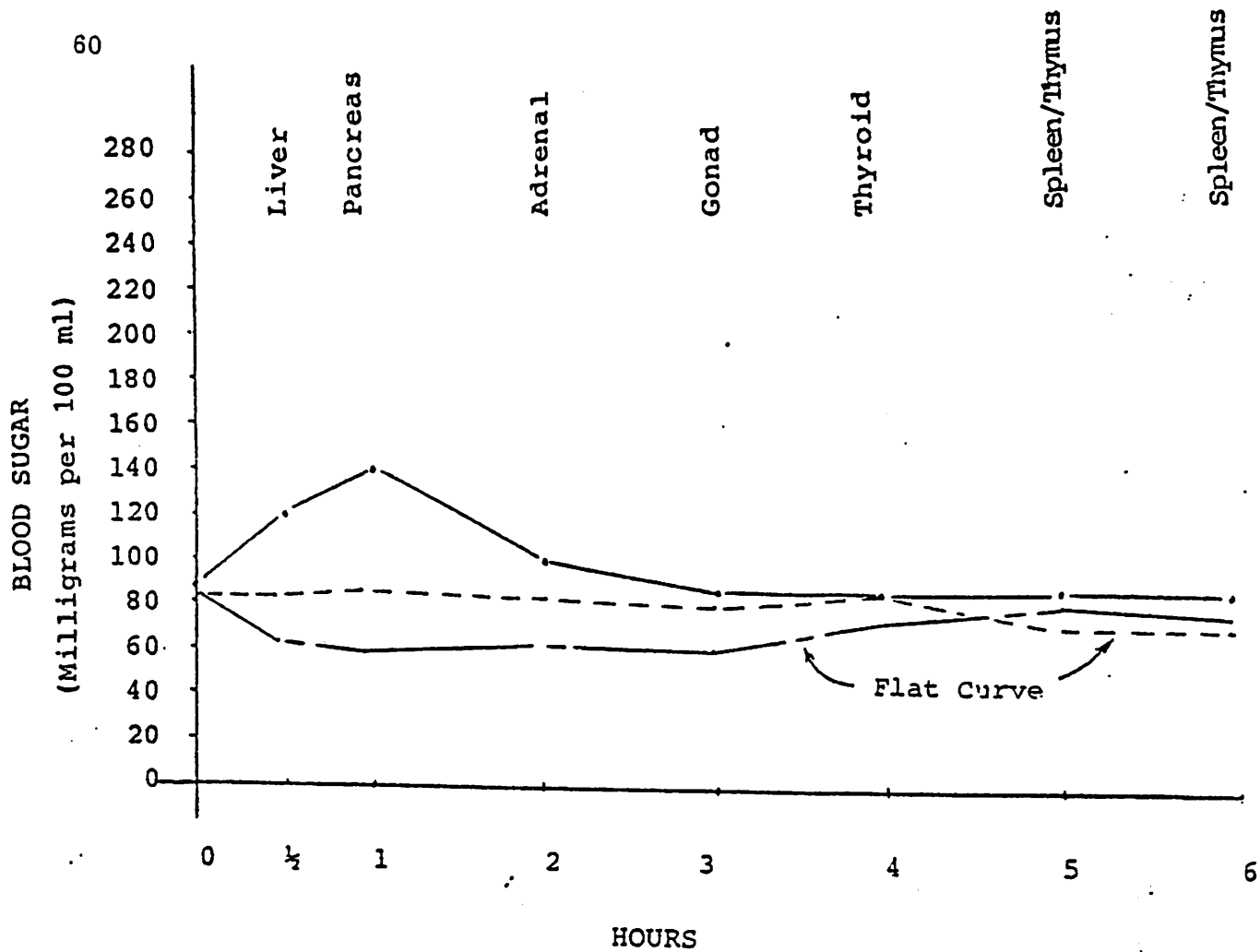
(Milligrams per 100 ml)



BLOOD SUGAR

(Milligrams per 100 ml)





For extreme readings indicating hypo function - use gland substance
 For extreme readings indicating hyper function - use protomorphogen
 For total arhythmia of curve - use pituitary

CRITERIA OF INTERPRETATION OF THE GLUCOSE TOLERANCE TEST*

1. The blood sugar level must rise to the half hour thence on up to the one hour level.
2. There must be no more than a minus 20% differential between the fasting and the lowest levels. (Note: This may be a bit strict because some authorities feel that a minus 5% differential is significant).
3. There must be no level below the normal low point for the fasting specimen.
4. The drop from the highest point to the lowest point should be about 50 mgm%.
5. The one-hour level must be at least 50% more than the fasting level.

*from A new Breed of Doctor by Alan H. Nittler, M.D.,
Pyramid House, 1972.

ARTHUR'S MORPHOLOGIC
IMMUNO-STATUS DIFFERENTIAL

THE ARTHUR MORPHOLOGIC
IMMUNO-STATUS DIFFERENTIAL TEST

Address by Dr. Thelma E. Arthur
At the 7th Annual Cancer Control Society

From birth all of us are ravaged by time, besieged by disease, and suffer erosion of our body's natural immune system because of unavoidable compromises with faulty nutrition, air-borne pollutants, and life-styles totally alien and repugnant to our biological selves.

Very few of us would argue against the value of natural foods, scientific nutrition, regular exercise and metabolic therapy as being pathways to abundant health. It is because of your and my dedication to health that I come here to talk with you about the culmination of my life's work...at least the last 35 years of it.

Many of you have had precursors of the present-day testing procedure known to you as the HCl, or the AC1, ACD, AMD, or perhaps more simply as the Arthur test. This procedure has evolved to its present "state-of-the-art" through personal examination and analysis of thousands of blood smears and the tedious logging of structural abnormalities observed in white blood cells.

To those of you for whom this testing procedure is entirely new...let me quickly describe what the A-MID test is. Those letters stand for Arthur Morphologic Immuno-Status Differential... but let us call it the A-MID test.

The A-MID procedure is a series of tests...a blood panel that reveals the patient's ability to respond to disease conditions and to properly defend himself against them. The A-MID is a microscopical analysis of the internal structure of white blood cells obtained from the ear lobe of a patient who has had nothing other than water ingested for a minimum of six hours

That analysis is performed by trained, certified microscopists skilled in performing this particular type of intracellular white blood cell differential. In turn the computerized raw score results are analyzed and graded into biologic levels by the expertise of physicians who have specialized in the study of clinical immunology and who have extensive experience in the field of preventive medicine.

What began as a test to detect early, untreated cancer has led me down some intellectually lonely but exciting pathways.

FOOTPRINTS OF MALIGNANCY

I am often asked how I happened to study the internal structure of white blood cells in order to develop a test for early,

untreated malignanIn 1942, when I became vitally alert to the need for earlyction, Arthur Pappenheim had already hypothesized that outprints of malignancy could be seen within WBC's if wemicroscopes with better resolution, and if we could learn cognize those footprints. So it was Arthur Pappenheim ointed a finger at WBC analysis as a pathway to cancer tion. I followed it.

After all my yearsorking with WBC's it still fills me with awe and reverence ok down a microscope and directly observe the living units o2 and health.

I'm also asked "Whse does the A-MID do?" It possesses an uncanny ability toare the ability of the body to mount a defense against bac, viruses and cancer by determining the amount of immuserve available for use. That particular measurement comes the panel's assessment of cells---literally how many structuralbrmal leucocytes are available to mount a defensive battlerebody is called upon to combat sub-stances foreign to M.D. Anderson Hospital's recent cancer bulletin again rep: that secondary or latent infections severely diminish atient's ability to maintain a strong and effective immunibility. In fact many patients with malignancy die of sary infection rather than cancer itself.

What other informatis furnished by the immuno-screening panel? For one thing, the indicators that may point to patient involvement with fclergies or inhalant antigens.

Food allergy (hypertivity) is perhaps the most often over-looked malady becau does not exhibit symptoms commonly associated with all

What physician has een asked to care for symptoms such as gastric distress, me headaches, bothersome hyperkinetic activity in childreadults, or disabling, unexplained weak-ness. Each of theptoms may be a manifestation of hyper-sensitivity and wheated as such will yield to therapy.

The panel also alera physician to systemic toxicity, which may derive from lacta digestion, or elimination of foods, or the presence of metals. The A-MID reveals critical information to the pian regarding identity, quantity and quality of his patiinherent defense mechanisms.

CULAR IMMUNITY

There are two populs of lymphoid cells involved in de-fending the human bAs they enter the circulation from the cell-forming orsome are programmed by the thymus gland to, in general, attaral diseases, cancer or tuberculosis. This is called cellimmunity. Other cells are programedby the bursa "clands" they provide the antibodies and gamma

globulins which attack and destroy bacteria. This is called humoral immunity.

In the healthy body, we see a quantum relationship between T and B cell activities which must be maintained for health. The A-MID test is the first simple, office-type test to reveal this information to the physician.

There has never been a serious question of the A-MID's validity. That means it is a true way to determine immuno-status. Its reliability, or accuracy, as a detector of abnormalities and anomalies shown to be related to cancer has been retested by multiple double blind studies. These studies have shown reliabilities varying from 95 to 98.7 percent. The last large data base was submitted to Stanford Research Institute for statistical analysis.

THEY FOUND ITS RELIABILITY TO BE GREAT THAN 98 PERCENT, AND AS SUCH, THE A-MID MERITS A PLACE IN EVERY PHYSICAL EXAMINATION IN ORDER TO UNCOVER UNTREATED, EARLY MALIGNANCY AND CANCER SUSCEPTIBILITIES IN CANCER-FREE PEOPLE.

Susceptibilities are easily reversed with supportive care.

From the standpoints of physician and patient the A-MID is a simple, office-type procedure. It consists of one drop of ear-lobe blood smeared on each of four microscope slides to specifications furnished by our office...the smears, along with a filled-out patient data form are then forwarded by your physician to our Test and Research laboratory.

Four working days after the laboratory receives the smear from your doctor along with certain patient-data information, the A-MID test findings will be mailed to your physician. They will be accompanied by a complete interpretation that is related to the condition of the specific patient. Further consultation with the laboratory's "in-house" physicians can be arranged.

All materials and supplies are furnished to physicians upon request and arrangements can be made for us to train their para-medical personnel in proper smear techniques.

A closing note...the time flies when you're having fun. The past 35 years hurtled past my consciousness within the twinkling of an eye resulting in this 18-parameter immuno-screening panel ---future plans call for the announcement of several additional parameters in new areas to increase the A-MID's worth as a comprehensive overview of the patient's biologic profile. This may be a fait accompli within month.

For FURTHER INFORMATION WRITE OR CALL:

Arthur Test and Research, Inc.
P.O. Box 2638
Chula Vista, CA 92010
(714) 425-1072

* A-MID REPORT *
(NEVER TREATED FOR CANCER)
10-30-79

PROCESSED BY:
ARTHUR TEST AND RESEARCH
401 H STREET, SUITE 6-7
CHULA VISTA, CA 92010
(714)-425-1072/73

DR. THELMA E. ARTHUR, M.D.
LAB DIRECTOR

S A M P L E

TO: DR.

SIGNIFICANT HISTORY:
GEN. HEALTH: FAIR

PATIENT NAME JOE DOE SEX M AGE 33
PATIENT A7912XXXX
DATE OF SMEAR: 10-23-79 DATE SMEAR RECEIVED: 10-26-79 DATE READ: 10-30-79

TEST RESULTS:	INTERPRETIVE COMMENTS:	NON CANCER VALUES
% OF LARGE MONOS: 4		4 TO 7
% OF HALOEDS: 53	SEVERELY ELEVATED	0 TO 30%
BIZZARE MONOS: 7	SEVERE ELEVATION	0
PMNNS & EXCRESCENCES: 11	WITHIN NORMAL RANGE	0 TO 14%
SMALL LYMPHS: 21	LOW NORMAL	20-40
MED. LYMPHS: 1		
LARGE LYMPHS: 0		
TOTAL LYMPHS: 22	MARKED CDP BURDEN*	

STASS	0	
BIFIDS	21	
TRIFIDS	33	
OTHERS	18	
TOTAL PMNNS:	72	PMNNS NO SHIFT

SHADOWS/100 WBC:	9	HYPERSENSITIVITY TO INTERNAL ANTIGENS
EOSINOPHILS:	1	
BASOPHILS:	1	TOXICITY FACTOR

BIOLOGIC LEVEL 4: MARKED MAA BURDEN. SUSCEPTIBLE LEVEL A B C D E

IMMUNOPOTENTIAL LOW NORMAL.
DIFFERENTIATION AND TRANSFORMATION OF PRE T-CELLS TO MATURE T-CELLS IS SEVERELY DEFICIENT.
T-CELLS SEVERELY DEFICIENT.
NO EVIDENCE OF HOST/TUMOR-ANTIGEN INTERACTIONS.
CELL MEDIATED IMMUNITY IS NOT OVERBALANCED BY HUMORAL IMMUNITY

THELMA E. ARTHUR M.D.

BIOLOGIC LEVELS RANGE FROM ONE (NORMAL) TO 5 (MALIGNANCY).
SUSCEPTIBLE LEVELS RANGE FROM A (NO DEPLETION OF IMMUNE RESERVES) TO
E (SEVERE DEPLETION OF IMMUNE RESERVES)

MAA - MALIGNANCY ASSOCIATED ANTIBODIES
CDP - CANCER DIAGNOSTIC PARAMETERS
THE ABOVE SCORES ARE BASE-LINE FINDINGS AGAINST WHICH SUBSEQUENT A-MID TESTS ARE COMPARED
TO DETERMINE THE PATIENT'S RESPONSE TO THERAPY IN TERMS OF CDP BURDEN AND ANTI-TUMOR ACTIVITY

1. Large mononuclear cells may occasionally be seen elevated with malignancy and in a terminal state.
2. Haloed bodies may rise in acute viral disease; may approach normal in the terminal state.
3. Bizarre monos may rise in acute viral disease; not always found with malignancy.
4. Excrescences may approach normal values in the terminal state; usually drop following surgery.
5. Small lymphs may be extremely low in the terminal state; resting cell mediated reserves.
6. Medium lymphs show the immune globulin reserves.
7. Large lymphs represent phagocytic T-cells.
8. Total lymphs may be extremely low in the terminal state.
9. Stabs are often seen in active infections; least mature normal neutrophil.
10. Bifids -
11. Trifids are the most often predominant form of neutrophil.
12. Other polys may increase with right shift in malignancy.
13. Total polys are the first-line defense against infection.
14. Shadows may be related to food-type hypersensitivities.
15. Eosinophils may be related to environmental/contact-type hypersensitivities.
16. Basophils may be related to various conditions of toxicity.

NUTRITIONAL SUPPORT FORAMID TEST

	A	B	C	D	E
1	x	x	x	x	x
2		x	x	x	x
3			x	x	x
4				x	x
5				x	x

CHART OF POSSIBLE
COMBINATIONS

- 1-Healthy immunostatus level low cancer potential suggested
 2-Slight susceptibility to malignancy suggested
 3-Moderate susceptibility to malignancy suggested
 4-High susceptibility to malignancy suggested
 5-Severe susceptibility to current malignancy suggested
 A-No deficiency/problem suggested
 B-Slight deficiency/problem suggested
 C-Moderate deficiency/problem suggested
 D-Severe deficiency/problem suggested
 E-Extreme deficiency/problem suggested

STRONG DETOXIFICATION PROGRAM:

- 4 Tablets Cholacol II 30 minutes before each meal with a full glass of water.
- 2 Tablets Zypan with each meal.
- 1 Tablet Livaplex with each meal.
- 2 Capsules Comphrey-Pepsin with each meal.
- 2 Tablets Cholacol with each meal.

MODERATE DETOXIFICATION PROGRAM:

- 2 Tablets Zypan with each meal.
- 2 Tablets Betafood with each meal.
- 2 Capsules Comfrey-Pepsin with each meal.
- 2 Tablets Cholacol with each meal.

TO SUPPORT THYMUS AND IMMUNE SYSTEM

- 1 Tablet Thymex with each meal.
- 2 Tablets Complex T with each meal.
- 4 Tablets Calcium Lactate between meals on an empty stomach.
- 1 Tablet ACP Complex with each meal.
- 1 Tablet Allorganic Trace Minerals with each meal.
- 2 Tablets Vitamin E with each meal.
- 1 Tablet Ostogen with each meal.
- 6 Capsules Chlorophyll perles with each meal.
- 10 raw apricot kernels daily.
- 2 capsules Chaparelli with each meal.

STANDARD PROCESS VEGETARIAN
SUPPLEMENTS

Because increasing numbers of people are decreasing the amount of animal parts they eat, I have developed a list of Standard Process vegetarian supplements derived only from vegetable sources:

Lactic Acid Yeast	Fen-Gre
Phosfood (Liquid & Wafers)	For-Til B-12
Wheat Germ Oil Perles	Inositol
Wheat Germ Oil Perles, Fortified	Linum B-6
Organic Minerals	Manganese B-12
Betafood	Min-Tran
Cyruta	Organic Iodine
Cyruta-Plus	Ribo-Nucleic Acid
Allorganic Trace Minerals	Soybean Lecithin
Cal-Amo	Symphytum
Chlorophyll Complex Perles	Zymex
Calcium Lactate	Zymex II
Choline Tablets	Chlorophyll Ointment
Collinsonia Root	Vitamin D
Complex T	Vitamin E
Di-Sodium Phosphate	

USF Ointment is for topical use only. Other than a small amount of lard, it is derived wholly from vegetable sources.

CONCLUSION:

The information that has been presented in this paper is for the interpretation of the listed laboratory tests. During constant implementation and re-evaluation of the foregoing we have found consistent results.

As you begin to incorporate these findings in your practice I know you will find similarly reliable paths of progress.

THOMAS P. BAKER, D.C.

A DIFFERENT APPROACH TO FASCIA ADJUSTING

ABSTRACT

This paper will present a review of a fascia technique, the procedure, when properly applied is less painful to the patient and less time consuming to the doctor.

HISTORY

Daniel McIntosh, D.C. (1894-1965) taught a course in fascia technique in 1960 which I attended. Dr. McIntosh studied under "Bone Setter Richter" --- Richter learned his skill under "Bone Setter Reese" of Youngstown, Ohio, who taught him to "adjust muscles" by pushing a towel over the surface of the skin and building a resistance, only to be released when the muscle underneath is stretched. His anatomy book revealed he was dealing with fascia because resistance could be maintained far beyond the origin of insertion of any one muscle.

PROCEDURE

1. Using a thin textured towel, find the tension/resistance under the skin over the area of a muscle that weakens after stretch. (Fast or slow.)
2. Find the direction of the greatest resistance or challenge fascia.
3. Push the towel against the tension/resistance until you obtain a lock. (If you go too far you will lose the resistance or lock.)
4. Using one hand to hold and increase pressure against the

tension/resistance with the thumb and countertorquing with the fingers, have the patient very rapidly put the area under pressure into a stretch, as he does so, let the fascia go with a snap.

There is a degree of skill and timing required to do this maneuver, but when it is mastered, this method will enable you to do a better job with much less discomfort to the patient, and less work and a more tidy operation for the practitioner.

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PROCEDURE MANUAL 1979: Goodheard, George, D.C. pp 73-84.

THE McINTOSH SYSTEM OF FASCIA

CORRECTION, copyright 1945, Permission by BETTY McINTOSH,
also background and history: wife of DANIEL McINTOSH, D.C.

A DIFFERENT APPROACH TO FASCIA ADJUSTING
From a pamphlet published by Daniel McIntosh, D.C.

The McINTOSH SYSTEM
OF
FASCIA CORRECTION

MANUALLY APPLIED

FASCIAE AND BODY MECHANICS

The human body, a working unit, successful and efficient, composed of a number of systems correlated for adaptation, maintenance and performance, as follows:

- | | |
|-------------|--------------------|
| Integument | Serous Circulation |
| Adipose | Blood Vascular |
| Fasciae | Nervous |
| Ligament | Digestive |
| Muscular | Glandular |
| Skeletal | Genito-Urinary |
| Respiratory | Cerebrative |
| | Etc. |

Each system of equal importance in the economy of the working unit.

All systems capable of normal physiology unless mechanically impaired.

BODY UNIT NEEDS

Air, water, food, shelter, activity, rest and normal physiology.

We examine the body unit and its systems as influenced by impaired body mechanics, its cause and physiological effects, recognized as body compression.

CAUSE

The mechanical impairment or interference is due to trauma, producing compression or extension in or of the body unit beyond the normal limits of motion.

EFFECT

Disarrangement, Twist and Malposition of fascia and/or ligamentous structures, superficial and or deep, thereby preventing the return of the body unit to its normal relationship and balance.

FASCIAE

Fascia, the fibroareolar connective tissue structure situated beneath the skin as covering for superficial muscles and viscera, is also provided for deep muscles and viscera, and presents a complexity of direction and area density.

Fascia encases the entire body beneath the skin as an actor's tights cover the outer surface. Maintains symmetry of outline, unity of body motion and added strength.

Fascia most vulnerable system to trauma, as it is subject to permanent disarrangement, twist and malposition, unless corrected manually or by accident, which supplies corrective force.

Disarrangement of fasciae maintains body compression, imbalance, distortion, constriction, subluxations, restricted articular motion, contracture of muscles and provides the mechanical impediment or interference to one or more of the component body systems, thereby increasing the problems for adaptative forces and supplies the basis for body fatigue.

THOMAS P. BAKER, D.C.

CORRECT POSTURE RELATED TO CROSS CRAWL

ABSTRACT

By combining the cross crawl with (Goodheart Alexander) good posture procedures, patients with painful conditions are able to perform cross crawl better.

While instructing a patient with painful spinal osteoarthritis, to do the cross crawl, while looking in a mirror, he complained of lower cervical pain upon cervical rotation --- he was instructed to turn only as far as he could with no pain. On a later visit he was instructed in proper posture habits illustrating how he could relieve his pain by taking the strain out of his body by changing his stance. On the next visit he reported that he could now do the cross crawl as originally instructed, if he assumed the correct posture first then did the cross crawl.

PROCEDURE

1. Have the patient assume correct posture while looking in a mirror.
2. Do the cross crawl while watching self and keeping in mind all steps of posture and cross crawl.

CONCLUSION

If the cross crawl is more helpful with visualization, then when one more positive factor is added that will eliminate postural strain, progress toward good health is aided.

REFERENCES

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THE ECLECTIC APPROACH TO
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FURTHER INFORMATION ON A MUSCLE TEST FOR DIAGNOSING HYPOGLYCEMIA

Bruce A. Born, B.A., D.C., F.A.C.C.I.

ABSTRACT: This paper will deal with further research concerning the muscle test first submitted by Dr. Victor Frank (1), and additionally supported by Dr. Wallace Gunn, Sr.(2). It has been found that while the muscle test can be an acute screening device for hypoglycemia, once treatment for this condition has begun and if the patient adequately follows instructions (3) the muscle weakness is soon eliminated.

REVIEW: In his paper Wally Gunn describes the testing procedure as follows: The patient is placed on the table in a supine position with the hands at the sides of the body. Place the right leg bent at the knee with the foot resting on the table. The left leg is extended and raised to a level above the right knee. The extended leg is then tested table-ward for strength.

PRESENTATION: Twenty patients exhibiting a positive reaction to the previously mentioned muscle test were referred to a laboratory for a 6 hours glucose tolerance test. All twenty of these patients were found to have hypoglycemia using the criteria instructed by Drs. George Goodheart and Walter Schmitt (4). Besides showing symptoms previous to and during the 6 hour glucose tolerance test the test results should show one or more of the following:

Muscle Test For Diagnosing Hypoglycemia
Bruce A. Born, B.A., D.C., F.A.C.C.I.
Page 2

1. A fasting blood sugar below normal levels.
2. A drop below the patient's fasting blood sugar at any time during the test.
3. A deviation of more than 100 mg % between the high and low sugar levels.
4. A drop of more than 25 percent in any hour.

RESULTS: The patients were given dietary instructions to eliminate the hypoglycemia conditions. Three of the twenty patients refused to follow dietary instructions at all. Two of the patients "tried" to follow the diet but found it physically impossible. The remaining fifteen patients followed the diet to the best of their ability and showed adequate responses symptomatically. In these fifteen patients, the muscle weakness which suggested hypoglycemia on the outset was eliminated within one month.

We were able to do follow-up testing on eight of these fifteen patients for a period of 6 months and this showed consistently that when the patient adhered to the dietary instructions the muscle weakness did not return, however when the patient "slipped" the muscle weakness returned almost immediately.

Muscle Test For Diagnosing Hypoglycemia
Bruce A. Born, B.A., D.C., F.A.C.C.I.
Page 3

CONCLUSION: I feel that this muscle test which we have labeled HOG in this office, is not only a valid screening test for hypoglycemia but can also be used to determine if the patient is following the dietary instructions. Many times a patient will tell the doctor that they are following instructions, and indeed sometimes think they actually are, when in fact they are failing miserably. Use of this test can shed light on this fact and indicate the need for additional counseling.

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- (1) Collected papers of the I.C.A.K. June 1977, Page 155.
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- (4) Stoner, Fred, D.C., The Eclectic Approach to Chiropractic, FLS Publishing Company, Las Vegas, Nevada.
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KINESIOLOGICAL ANALYSIS AND APPLIED KINESIOLOGICAL EVALUATION OF
THE THROWING MOTION OF A QUARTERBACK CONCENTRATING ON THE THROWING
ARM AND IPSILATERAL THORAX ROUGHLY BOUNDED BY THE MIDSTERNAL AND
TRANSPYLORIC PLANES

By Charles A. Bender, D.C.

Abstract: A twenty-two year old male collegiate quarterback was cinematographically analyzed to determine causal relationships between the nature of his throwing motion and a pattern of applied kinesiological findings.

Discussion

In August 1978 we were contacted by the starting quarterback of a major college. He suddenly experienced an inability to adequately grip a football and had read an article which intimated that he could be helped through applied kinesiology. By the second treatment he was fully functional again but experienced recitivism on a fairly regular basis despite efforts to treat involved areas known to require consideration.

From a coaching standpoint, this athlete is considered to have sound form in all phases of the throw. However, one possible important variable to be remembered in this analysis is that he also has a severe antero-medial rotatory instability of the left knee.

The response of this athlete led to an opportunity to care for the other players. The propensity for A.K. to be remarkably effective with the treatment of athletic injuries prompted the quarterback to take an undergraduate course in kinesiology and to submit a paper correlating kinesiology with A.K. (He got an A and I am now to be a visiting lecturer in applied kinesiology at the State University.)

Methodology

Kinesiological analysis of the subject was performed on two separate occasions approximately seven months apart. The preliminary analysis was done with a Sanyo videotape machine. It was determined, however that optimal analysis could only be achieved with a frame-by-frame study. The second analysis was done with a Kodak super-8 movie camera. Analytical views were anterior, posterior, left lateral and right lateral. All modes were taken three times: close-up upper body, close-up lower body, and whole body.

Film analysis was done using a Kodak super-8 projector and a 3M "400" microfilm reader-printer modified to accommodate super-8 and which allowed for negative image photographs. Techniques for analysis included stop action frame-by-frame, slow motion, and photo sequence.

Following these analyses, pertinent data was extracted and various hypotheses considered regarding the significance of these findings and relationships to A.K. findings.

For purposes of study, the throwing motion has been divided into six phases:

1. Set phase - The quarterback has withdrawn from the center and is in a stationary position prepared to throw.
2. Draw phase - The ball is being moved posteriorly and superiorly.
3. Rotation phase - The hips and thorax are rotated about a vertical line which moves in the direction of the target.
4. Acceleration phase - The action of the major muscle groups in actively moving the shoulder and arm forward.
5. Whip phase - The range of motion which causes the ante-brachium to extend and pronate.
6. Release phase - The pronating action of the wrist and hand.

From a kinesiological standpoint we will discuss the sequence and action of the prime movers in each phase, realizing the basic fact that for said prime movers to act most efficiently joint structures must be intact, stabilizing muscles must be set, and antagonist muscles must be relaxed.

From the applied kinesiological standpoint we can take none of this for granted. The integrity of the musculo-skeletal system, sequence of muscle response, proprioceptive response (primarily spindle cell and golgi tendon reflexes), myotatic (stretch) reflex, etc. must be evaluated to determine whether maximum effort of the player is truly the maximum level at which he is capable of performing. For example, a motor function, such as throwing a football, is a complex unit of purposeful achievement. The effects of motor activities are experienced mainly in the sensory and sensory association areas. Memories of the entire pattern of the motor movement are stored in these areas and are called sensory engrams. Therefore, when a quarterback wants to execute a throwing sequence, he utilizes the appropriate engram and the motor system of the brain reproduces the pattern (the exact sequential pattern of proprioceptive impulses is reproduced). Assuming optimum function of all physiological systems at all times, the result is highly predictable each time. However, what happens if an insult of any magnitude occurs to the body. Using a trauma to the biceps brachii as an example, the proprioceptive impulses from the function being performed (elbow flexion) are compared to the engram. If they do not match, the differential is called "error". This initiates motor signals that automatically activate appropriate muscles to allow the function to be completed. This is called the proprioceptor feedback servomechanism for reproducing the sensory engram. Simply, it results in recruitment of other muscles to complete the task.

On a subclinical level, the recruitment of muscles to complete a function would go unnoticed by the average person. Yet, to the quarterback who is expected to figuratively "thread the needle" with every pass, it can become a frustratingly noticeable problem. The triceps will extend the forearm, but to the quarterback who has lost a little "zip" on the ball, the often ignored anconeus can mean the difference between a touchdown and an interception.

Results

Kinesiological Analysis

The positioning of the ball in the set phase is extremely important. The ball must be held at approximately the chest level to ensure that the release will be completed in as short a time as possible. If the ball is held too low, the time it takes to ready it for the draw will be too long. If it is held too high, the length of the draw will be shortened, shortening the overall time of release, but also minimizing to some degree the efficiency of the throwing motion. Since, as previously explained, the set phase is essentially a stationary one, the muscles involved as prime movers in this stage are in states of static contraction. The muscles involved are the biceps brachii, brachioradialis, and the forearm flexor group. The subject was observed as having relatively good positioning of the ball in this phase.

The draw phase is effectively a preparation for the acceleration portion of the throw. Seen in this light, one must realize that the length of the draw is usually in direct proportion to the length of the pass. By length of the draw it is meant the degree of flexion or extension observed at the elbow joint. The greater the extension, the longer the draw is said to be.

The motion of the throwing arm about the shoulder joint in the draw phase is threefold. Abduction occurs until the brachium is approximately parallel to the ground. Backward extension occurs in the posterior sagittal plane and horizontal extension occurs posteriorly to the coronal plane of the body. Muscles observed as prime movers in these actions were the posterior and middle deltoids, upper trapezius, teres major, teres minor and brachioradialis. Firing order of these muscles appeared to occur in this order: posterior deltoid, middle deltoid, brachioradialis, teres major, teres minor, and upper trapezius.

The acceleration phase brings the arm into line with the target. This stage also essentially starts the momentum of the arm forward.

Throwing Arm Analysis

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The action is still relatively slow however, due to the fact that the majority of muscles being dealt with in this portion of the throwing motion are large and cumbersome groups. Important to note is that the angle of flexion of the subject's elbow is essentially constant at ninety degrees throughout the entire movement. The motion occurs about the shoulder joint. The actions about the shoulder joint are horizontal flexion in the plane anterior to the coronal plane and forward flexion. Muscles observed to be involved in the subject in this phase, in their firing order are: anterior deltoid, coracobrachialis, sternal portion of the pectoralis major muscle, serratus anticus, the short head of the biceps brachii, and the lateral head of the triceps brachii.

The whip phase, combined with the release portion of the throwing motion, is the most rapid aspect of the pass. The major movement seen is about the elbow joint with extension and pronation of the ante-brachium taking place. Any movement of the brachium in depression is basically follow through from the acceleration phase. The firing order for the muscles observed to be responsible for movement in the subject was anconeus and pronator teres. Minimal or no tricep brachii contraction was detected, in all likelihood due to the fact that extension occurred from ninety degrees to anatomical position. This is beneficial to the throwing motion however, as the anconeus is small, thereby allowing for maximum speed.

The release phase involves pronation of the distal portion of the ante-brachium and flexion at the wrist. These two factors will be discussed in the overall analysis of the movement. The sequence of observed agonistic muscle action in the release phase was observed as pronator teres and the forearm flexor group.

Due to the fact that the upper right quadrant is not directly involved in the rotation phase, no muscle action was described for it. However, it is important to make the observation that the sternal portion of the pectoralis major muscle goes into extensive stretch due to the action of the hips and thorax in rotation.

The ramifications stretch will be discussed later in the fascial stretch of the applied kinesiological analysis.

It appears: movement of the upper right quadrant of the body through throwing motion is fundamentally sound. The subject appeared, from the strict kinesiological viewpoint, deriving maximal efficiency from the motion employed.

From the standpoint, several important factors must be analyzed essential for the release of the ball to be high. This one for kinesiological efficiency, but rather is considered to be the optimal throwing motion to prevent knock outs. In order to accommodate this, the elbow must lead before the ante-brachium. The elbow must be pointed in direction of the target in order to maximize efficiency of . It appears as if the subject achieves this very well.

Another consideration is the pronation and flexion of the hand at time of release. These movements facilitate a dual purpose: practical standpoint, the ball will travel to the catcher with its nose up, i.e., the front tip of the ball will be slightly upward. The application of this is that, from catcher's standpoint, the ball is easier to catch. From aerodynamic standpoint, the ball traveling with the nose up is aerodynamically better suited to travel through the air. This factor is highly significant when throwing into a wind. The subject, analyzed in this area, appeared to both flex and pronate the hand at appropriate time. However, it appeared that the hand went into hard supination and extension almost immediately at point of release, bringing it back to normal, or slightly past position. The reason for this is not clear. However, reaction may have facilitated the occurrence of the pisiform syndrome, which was diagnosed in the subject. This syndrome discussed later in the applied kinesiological evaluation.

Throwing Arm Analysis

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There appears to be some type of compensation taking place in the quadrant during the throw. This is to be expected, for due to the severe antero medial rotary instability present in the left knee, balance problems should be expected. It should be noted that due to the complex nature of the throwing motion, the total effect of the injured knee on the throwing motion cannot be discussed at this time.

Applied Kinesiological Evaluation

During slow motion and stop action studies a very interesting fact was noticed that, at normal speed, occurred too quickly to detect. Just as during a rear-end collision the body is shoved rapidly from under the head, during the rotation phase the chest is moved rapidly away from the ball. This was detected quite by accident. In one of the segments of the throw, at the terminus of the draw, the ball aligned with a fixed point in the background. As the trunk rotated and moved toward the target, the ball remained stationary in front of the point. Further study revealed that this stretching of the P.M.S. was the prime initiator of the acceleration phase. Fascial sheath involvement here primarily restricts throwing the "bomb" and is probably the single most important factor if a quarterback complains of loss in that area yet still has zip on the quick short release.

We are familiar with the classic signs of a bicipital slip. The throwing motion of a quarterback by its very nature exerts a tremendous strain on this area during the rotation and acceleration phases. Although the classic signs may be absent, the condition tends to be present with significant pain upon palpation and relief upon correction. There will usually be partial reduction of range of motion observed by the subject prior to correction.

During the whip and release phases the hand goes into hard pronation then tends to snap into supination. The pronation is necessary to apply proper rotation to the ball. The supination appears to be a response to stretch as the hand almost appears to slingshot back.

Whatever the case, it seems to result in a pisiform-hamate syndrome with concurrent radio-ulnar disarticulation at the proximal ante-brachium. In the subject it was this weakness which led him to seek A.K. correction.

An observed weakness in the subject of the anterior deltoid during acceleration was traced to reactivity to the ipsilateral rhomboid. This is usually apparent in all throwing modes during competition when split-second accuracy is essential.

Summary

Although this study is based upon analysis of one individual, that individual was considered by coaches and recruiters to exemplify good passing qualities. I have had the opportunity to examine and treat eleven other quarterbacks in high school and college since then and have found a remarkable similarity in syndromes. I am currently compiling statistics in a file I call my "Q.B. syndrome" file because a definite pattern of similarity is emerging.

Conclusion

Although the previous information contains some practical information and data you ultimately have to fix what you find. However, the concept of the engram is an exciting departure point for understanding the basis of all degeneration.

The highly skilled athlete provide us with an excellent opportunity to see the outstanding effectiveness of A.K. procedures. I have found that information gained through these experiences has led to a deeper thought process in dealing with my other patients.

MUSCLE RECRUITING EXPANDED

Charles A. Bender, D.C.

Abstract: In an effort to explain the significant aspect of sub-clinical problems in athletes, the concept of sensory engrams and the proprioceptor feedback servomechanism for reproducing the sensory engram were examined. Certain hypotheses for clinical relevance were made and an experiment conducted to accumulate data.

Discussion

The subjects for part I of this study which, in its initial phase, had no deeper goal than to fix what I found, were highly skilled collegiate athletes. As interest grew regarding the increased effectiveness of performance, I felt compelled to provide a somewhat scholarly rationale to the approach of finding and fixing problems nobody knew were there in the first place... Nobody but the athlete, that is. These studies led to rediscovering the sensory engram and the proprioceptor feedback servomechanism for reproducing the sensory engram.

Had it not been for the opportunity to study subjects, virtual perfect physical specimens by all orthodox standards, yet sub-par in their own estimation, I am sure I would not have explored these thought lines. It is rare for a clinician to be able to study subjects with such a perspicacious awareness of minute differences in physical well-being. Therefore, these athletes became, in my estimation, a perfect laboratory for exploring the ignored phase in the span of the average human life, the points at which degenerative changes begin and why.

No one is more attuned to the total level of physical performance in himself than the highly trained athlete playing at a highly skilled position. A decrease in explosion from the blocks, a tad less zip on a short pass into double coverage, make all the difference in the world to these people. They are intimately aware of that which they are capable of doing.

Muscle Recruitment 2

Any decrease in force becomes a source of concern. Invariably, however, and team physicians will tell them that nothing is wrong. When an A.K. examination reveals a sequence of findings, when treated, immediately restore top function and help the player, the tendency on the part of the physician to tell the coach that his athlete just thinks the chiropractor is something for him, therefore he is playing better because psychologically better.

I am deliberately avoiding a discussion of frank injuries in this paper because they are not relative to the thought line. The important point to keep in mind is that the only one truly aware of the nature of the problem we are discussing is the athlete. The coach tends to see "timing" or "lack of concentration".

The applied physiologist is well aware of the immediate tendency of a poorly recruited muscle when a weakness of the tested muscle exists. Logical and important for understanding, is the mechanism by which recruitment occurs. The same recruitment that takes place on examination is taking place with every movement of that muscle every day until corrected. As we know, constant recruitment compensation, without correction, leads to degenerative changes, given enough time.

The sensory-motor engrams

Throwing a ball is a complex unit of purposeful achievement. The effects of activities are experienced mainly in the sensory and sensory-motor areas. Memories of the entire pattern of the motor movement stored in these areas and are called sensory engrams. The motor storage is a tracing upon the protoplasm of the tissue. Therefore, when the quarterback wants to execute a throwing sequence selects the appropriate engram and the motor system of the brain reproduces the pattern. This may be compared to setting a design cam for a sewing machine, putting it in place, and when the machine is started the preselected pattern is reproduced.

Muscle Recruiting Expanded 3The proprioceptor feedback servomechanism for reproducing the sensory engrams

The quarterback drops back, spots his receiver cutting across with double coverage converging, passes, and is, to his surprise, intercepted. In a game of fractions of a second, this man inately knows that the pass should have gotten there in time. What happened? Game film replay reveals that on the previous play, a lateral, he was tackled and thrown to the ground with a helmet buried into his back. He got up and walked into the huddle rotating his arm about the shoulder as though to loosen it up. The ensuing pass play reveals good technique and apparently good ball speed. So what went wrong? The quarterback felt no objective pain or restriction.

"... in addition to the feedback pathways through the cerebellum, more slowly acting feedback pathways also pass from most proprioceptors first to the sensory areas of the cerebral cortex and thence back to the motor cortex. Each of these feedback pathways is capable of modifying the motor response."² This is what allows for a desired function to be completed whenever required.

The quarterback in the illustration received trauma to the rhomboid resulting in a reactivity to the ipsilateral deltoid which affected the draw and rotation phases of the throw which, in turn took something off the delivery on the ensuing play. The throw was completed because the "error" was detected and compensation made. However, a compensation which, in a less demanding environment, would have gone unnoticed, became a critical concern to the quarterback.

Proprioceptor signals from the parts needed for the activity are compared to the engram, and if the two do not match each other, the difference, called "error", initiates additional motor signals that automatically activate appropriate muscles to allow for the performance of the task.³ Each successive portion of the engram presumably is projected according to a time sequence, and the motor control system automatically follows from one point to the next.

In this explanation, you can see that the motor system follows the pattern of activity set up in the sensory area, making the motor system a servomechanism.

At this point we will dispense with the athletic analogy because that would lead to the role of sensory feedback during the establishment of the rapid motor patterns and the effect of different muscular loads on the performance of skilled motor activities.

Application

Degenerative changes have to start sometime. How often are we confronted by the patient who complains of back pain, remembering one previous similar incident years ago that went away within a few days? How well we know, after seeing arthritis evidence on x-ray what really happened. But let us, for our own edification and the education of our patients, think of the practical ramifications of understanding the implications of these realities in light of what has been discussed.

Let us assume, for the sake of simplicity, a person with an ideal departure point for study, i.e., he has no prior A.K. findings. He then experience some trauma, for instance, a knee strain. The next time he walks, the engram comparison reveals error and the servomotor response results in recruitment to allow for the function. If the time frame of the problem is short, full recovery is made. However, if the time frame is extended by residual pain or unresolved muscle weakness, a new primary engram is made based upon compensation. How often do we see someone who once had a back problem but is now asymptomatic walking with a posture that would indicate that pain is causing the posture. When questioned, the person is able to assume a normal stance without pain and claims the posture must now just be habit. In my opinion, this person has established a new engram for his posture in standing.

Muscle Recruiting Expanded

5

With this in mind, I determined that I would work intensively with patients to teach the Alexander posture as a matter of routine and record the response.

Methodology

Sixty-four patients were selected in October 1979 to take part in this study, 38 females and 26 males. Females ranged in age from 28 - 54 and males from 31 -52.

Half of the group was instructed carefully in proper posture and told to make every effort to use the posture at all times. The remainder, also carefully instructed, were told to practice the posture three times per day. The first group were spot called frequently to reinforce the necessity of always using the posture. The remainder were reminded to practice three times per day. Since all these patients were, at the time, under corrective care, I got to observe them frequently. It was observed that those told to practice the posture three times per day invariably were never using it in the office whereas 84% (27) of the other group were. Understandably of these twenty-seven, some may have been providing a more conscious effort because of being in the office. All sixty-four people chosen were married and had spouses willing to cooperate in unobtrusive surveillance. The following data is the result of questions asked of the spouses after sixty days of the study.

Muscle Recruited 6

Group A - Those use posture constantly

Group B - Those practice three times per day

	Group A	Group B
Carefully folkrections	30 (94%)	28 (87%)
Begin to feel naith posture		
a) by 1	4 (12%)	0 (.0%)
b) by 2	9 (28%)	2 (6%)
c) by 3	15 (47%)	8 (25%)
d) by 4	1 (3%)	5 (16%)
e) by 5	0 (0%)	0 (0%)
f) by 6	0 (0%)	0 (0%)
Never felt comfcwith posture	1 (3%)	13 (41%)

Conclusion

It is too eatell if new primary engrams have been established in zhe subjects. I have now completely stopped talkingie people about posture, but will, in a few months begirting the spouses to observe and report back.

I believe th merely scratching the surface, at this time, of a studyery significant ramifications. Un- fortunately lacktistical training and objective testing facilities prec: from presently entering more deeply into a study of this:.

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ALCOHOL

by

JOHN R. BERNZOTT, D. C.

DEFINITION: Alcohol is a transparent, colorless liquid obtained from the distillation of fermented saccharine material. For use in the healing arts, whiskey should be at least two years old and wine at least four years old. Wine is made by fermentation without distillation. Red wine differs from white wine in that in the production of the former, the skins of the grape are used. Malt liquors - ale, beer - are produced by fermentation of malt and hops and contain nutritive material.

USE: When taken internally in small amounts and at mealtime, the effect of alcohol is to stimulate the glands of the stomach to greater secretion. The presence of alcohol in the stomach, however, retards digestion, so that if much be taken it is a detriment rather than an advantage.

As a result of the long-continued use of alcohol, changes take place in the coats of the stomach. The inner lining of the stomach loses its delicacy and becomes thickened. It can no longer secrete as formerly, and indigestion results. Upon the heart and circulation, alcohol is a decided stimulant. It strengthens the heart, it enlarges or dilates the blood vessels and hence the flushed face of the one addicted to alcohol. Alcohol by its stimulant action enables the system to pass through great strains, but if its use is prolonged beyond the period of actual need, it is followed by its harmful effects. These later manifest themselves by changes in the stomach, liver, kidneys and blood vessels and consist essentially of a hardening of these organs, rendering their functions imperfect. Alcohol does not increase the heat of the body, as some suppose. By actual experiment it is found that by dilation of the capillaries it leads to a loss of heat. It was found, for instance, that those explorers in the Arctic regions who avoid alcohol can more adequately endure

the trials of the severe cold than those who indulge..

MANNER of USING: A discussion of this portion scarcely seems necessary. Much depends upon the person. There are many persons who cannot take even the malt liquors, which contain but from three to five percent of alcohol. On the other hand, there are abundant examples of persons who have indulged in alcohol and yet whose health seems not to be greatly impaired by such indulgence. From the physical standpoint alone, it may be said that people, especially young people, do not need alcohol in any form. Their system does not require it. In disease its benefits are undoubted and it may be added, are greatest to those to whose system it is a stranger.

FRUITS AND VEGETABLES VALUABLE
IN HEALING

by

JOHN R. BERNZOTT, D. C.

- LEMON: Anti-narcotic, asthma, antidote in alkaline poisoning, biliousness, corns, coughs and colds, hoarseness, sore throat, dropsy, erysipelas fevers, headache, hemorrhages, itching of anus or scrotum, jaundice, grippe, rheumatism, gout, chills and fever, scurvy, removing suntan and vomiting.
- GRAPEFRUIT: Mild astringent. Soothing to the stomach in cases of flatulence and dyspepsia.
- APPLE: Gentle laxative. Eaten regularly, apples keep the stomach and bowels in good condition.
- OREGON WILD GRAPE: (*Berberis Aquifolium*) Used in leucorrhoea and as a blood purifier.
- GRAPE VINE: (*Vitis Vinifera*) Used in dropsy and chronic dysentery.
- ASPARAGUS: (*Asparagus Officinalis*) Used for the kidneys.
- BEEF: (*Beta Vulgaris*) Used in gravel associated with kidney stones.
- ONION: (*Callium Cepa*) Constipation, croup, burn or scald, bronchitis, pneumonia.
- PUMPKIN: (*Cucurbita Pepo*) Treatment for worms, retention of urine and inflammation of bladder and bowels.

Page 2

- TCMATO: (Lycopersicum Esculentum) Treatment for cholera infantum.
- CELERY: (Opium Graveolus) Used in chronic rheumatism.
- RED PEPPER: (Capsicum) Used as a gargle in fever and as a tea in the grippe.
- LIME: Fever, scurvy.
- MUSTARD: Provoke vomiting, soothes pain, promotes circulation, dyspepsia, eruptions.
- CURRANTS: Infantile diarrhea.
- PARSLEY: Scanty menstruation, will relieve pain, increase secretion of urine, dropsy.
- POTATO: Relieves aches and pains of the joints.

VERTEBRAL CHALLENGE
A TREATISE ON SPECIFIC
VERTEBRAL CHALLENGING
FOR FLEXION SUBLUXATIONS.

by

JOHN R. BERNZOTT, D.C.

This article is being written to alert your thinking to specific vertebral challenging for flexion subluxated vertebrae.

In my practice over the past 4 to 5 years I have incorporated Dr. James Cox's technique in treating disc type back problems with specific traction obtained on the chiromanis table.

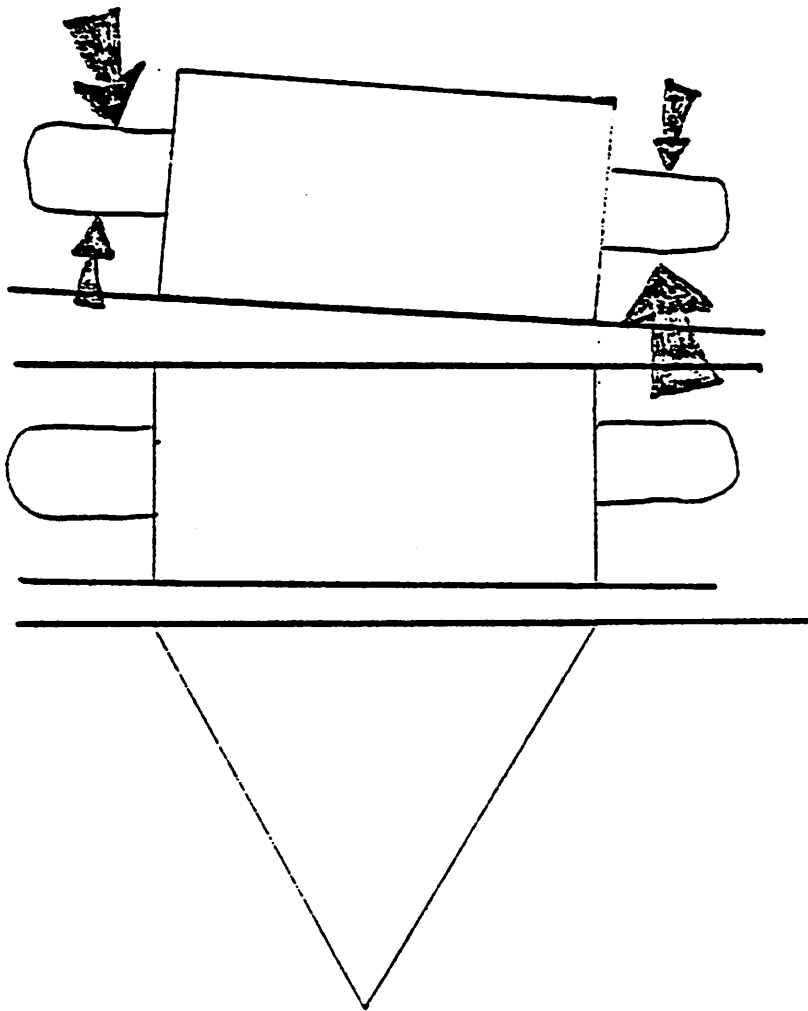
After the patient is examined and the necessary radiographs are taken, the spinal x-rays are evaluated for flexion subluxations. This I accomplish with the use of straight edge rule, drawing a line across the sacral base and the inferior and superior borders of the vertebral bodies involved as shown on the accompanying drawing.

The next step is to challenge the vertebrae and discern the direction of vertebral correction to be made. A double contact is made on the mamillary processes (of the lumbar vertebrae involved) with the direction of challenge indicated by the arrows on the drawing. First challenge in the direction of the large arrows and then in the direction of the small arrows. The direction of adjusting is the same as any other vertebral challenge, in the direction which made a strong indicator muscle weaken.

I decided upon this type of challenge due to the concavity and convexity of the articular facets of the lumbar vertebrae. Utilizing this type of challenge in the flexion subluxation and or disc problem, we in our office have experienced excellent results in over 500 cases.

VERTEBRAL CHALLENGE

BERNARDI



LIGAMENT STRETCH-ADRENAL STRESS SYNDROME
RELATED TO KNEE DISORDERS

Robert M. Blaich, D.C.

ABSTRACT

Ten patients with acute or chronic knee problems exhibited a specific type of involvement of the "ligament stretch-adrenal stress syndrome". The specific involvement reported here is that the phenomena of muscle weakness produced by stretching of ligaments may be limited to the ligaments of a problem knee, either recently traumatized or chronically unstable. The ligament stretch weakness of the knee is abolished by therapy localization to adrenal reflexes (most commonly neurolymphatic) and by sucking or chewing adrenal concentrate. Effective treatment is the same as for any adrenal-ligament involvement. The only unique factor is its identification, which requires stretching the knee ligaments in a problem knee and testing a muscle that crosses the knee joint.

INTRODUCTION

The phenomena of temporary muscle weakness following the stretching of ligaments was first reported by Deutsch in 1975.¹ This adrenal gland related syndrome was elaborated upon by Durlacher² and Schmitt³ in 1976. Schmitt's clinical investigation validated the reproducibility of this phenomena as well as its significance in the treatment of certain musculoskeletal problems. It has been the experience of this investigator that evidence of the ligament stretch-adrenal stress syndrome, has a relatively high incidence of acute and chronic knee problems and may be limited to the problem knee rather than being a systemic phenomena.

PROCEDURE

Patients with knee problems were screened for a local ligament stretch muscle weakness pattern by passively hyperflexing, hyperabducting, hyperadducting, and caudal stretching (each of these individual challenges was followed by a muscle test) the involved knee and then testing any strong

indicator muscle which crosses the knee joint. Tensor fascia lata, rectus femoris, hamstrings were most commonly used as indicators. If positive, the patient was tested for muscle weakness following ligament stretch in the other knee and either shoulder. Further examination involved having the patient therapy localize the adrenal neurolymphatic on the side of knee involvement to see if this abolished the stretch weakness. The patient was also tested with whole adrenal concentrate in the mouth (either sucked or chewed) for abolition of the stretch weakness.

RESULTS

Ten patients exhibited the ligament stretch muscle weakness phenomena limited to the problem knee, rather than exhibiting this problem systemically. These patients were treated in the usual manner by prolonged stimulation to adrenal neurolymphatic and correction of any other adrenal factor indicated by therapy localization and temporal tap audit. The patients were supplemented with whole adrenal concentrate. Table number one illustrates the immediate results on the ten painful knees that were tested.

PATIENT	IMMEDIATE DECREASE IN PAIN	IMMEDIATE INCREASE IN ROM
D.S.	+	+
S.C.	+	+
O.M.	+	+
M.B.	+	+
D.L.	-	+
N.Q.	+	+
A.Be.	+	-
H.G.	-	+
A.Bl.	-	+
C.R.	+	+

DISCUSSION

Due to the specificity of these ligament stretch patients, several other factors were tested on most patients to determine other involvement that might be present. Care was taken to rule out muscle stretch phenomena such as that which requires facial release technique. A hyperflexion of the involved knee followed by testing the rectus femoris while the patient therapy localized the quadriceps neurolymphatic was checked on most patients to rule out quadriceps involvement. In none of the cases tested did the quadriceps neurolymphatic abolish the knee ligament stretch.

Most of the patients had strong gracilius muscles in the clear and had negative therapy localization to the adrenal neurolymphatic in the clear, which indicates that this procedure has value in uncovering what may otherwise be a hidden adrenal problem. Although the incidence of this specific knee ligament problem may only be a small percentage of all those who show systemic ligament stretch muscle weakness, it seems to have a rather high incidence among problem knees.

CONCLUSION

The "ligament stretch-adrenal stress syndrome" seems to be quite common in acute and chronic knee problems and may require specifically challenging the knee ligaments to uncover it. Treatment is immediately effective in reducing knee pain and increasing range of motion in a high percentage of cases tested and treated.

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MANUAL AND MACHINE MUSCLE TESTING
BEFORE AND AFTER CORRECTION OF "RESPIRATORY FAULTS"
Robert M. Blaich, D.C.

ABSTRACT

Two different muscle testing procedures, manual and machine, were used to test hamstring muscles bilaterally on twelve patients. A respiratory factor was evaluated by comparing the muscle's strength during "full breath in" versus "full breath out". Eight of the twelve patients exhibited significant "respiratory fault" involvement, in which the machine tests showed greater than a five per cent difference in strength of the muscles, depending on the phase of respiration during the test. With manual muscle testing, ten of the twelve patients exhibited respiratory fault involvement. Comparisons between the two types of testing are discussed. The eight patients who exhibited significant respiratory faults by machine testing were corrected by standard applied kinesiology procedures, according to the indication of the cybex testing. Upon retesting, 100% of those corrected exhibited a significant normalization of the aberrant "respiratory fault" pattern.

INTRODUCTION

One of the five factors of the IVF¹ frequently referred to in applied kinesiology is cerebral spinal fluid flow. Theoretically, if there is a malfunction of a portion of the primary respiratory mechanism², creating a mechanical disruption of the CSF flow in certain areas of the spine, muscles weakness can occur. Because this weakness is due to a failure of the normal "pumping action" of the cranium and sacrum during respiration, this type of muscle weakness is normally abolished or non-existent during a certain phase of respiration, usually exposed by having the patient fully inhale or exhale. Because of the common

use of hamstrings as an indicator muscle in applied kinesiology, they are frequently found to be involved in this type of weakness. Twelve patients were used to examine the correlation between a manual muscle testing method (of Kendall, Kendall and Wadsworth)³ and cybex testing (using the Cybex II Dynamometer)⁴ in evaluation before and after treatment of cranial-sacral respiratory faults.

MATERIALS AND METHODS

Twelve patients were selected for this investigation. Ten of the twelve showed obvious manual testing changes in the strength of one or both hamstrings, which coincided with the patient's phase of respiration during the test. A typical test involved having the patient fully inhale and hold the breath in while the test was being performed. The same procedure was done with full exhalation. Two of the twelve did not exhibit an obvious change in hamstring strength correlated with respiration using the method described here. These two patients were intended to establish a normal pattern, along with the noninvolved side (if present) of the ten patients who showed some manual testing involvement. Theoretically, the normal pattern should be the same strength in the muscle regardless of the phase of respiration. Note that the manual muscle tests involved an isometric (taken into an eccentric) contraction of the hamstring group. One examiner, with five years experience in applied kinesiology, was used for all manual tests.

All twelve patients were tested with modified Cybex II Dynamometers (provided by Systems DC). The instrument was set up so that a

full range of knee motion was made from full extension to full flexion. The arm of the dynamometer, which offers resistance to the patient's muscle, was pre-set at a rate of 60 degrees per second or ten revolutions per minute. Since the arm of the machine will only move at this rate, regardless of the force exerted against it, it is possible to measure the torque or foot pounds maximum effort through a muscle's range of motion during a concentric contraction.

The cybex testing utilized the following procedure: It was explained to the patient that the machine would measure the strength of the muscle and that it is extremely important to use maximum effort for each test. The patient was set up on the equipment (as in figure one) and was requested to do a trial contraction with the leg being tested and another trial 30 seconds later. This gave the patient an opportunity to "warm up" the muscle and to become familiar with the feeling of the equipment. All tests were done with 30 second intervals between the contractions, to standardize the time factor. Ten contractions were then done with the hamstring group on each leg in the following order: three full inspirations, three full expirations, full inspiration, full expiration, full inspiration, full expiration. This staggering of the order was used to compensate for any possible fatigue factor. All contractions were done on one leg before beginning the other leg.

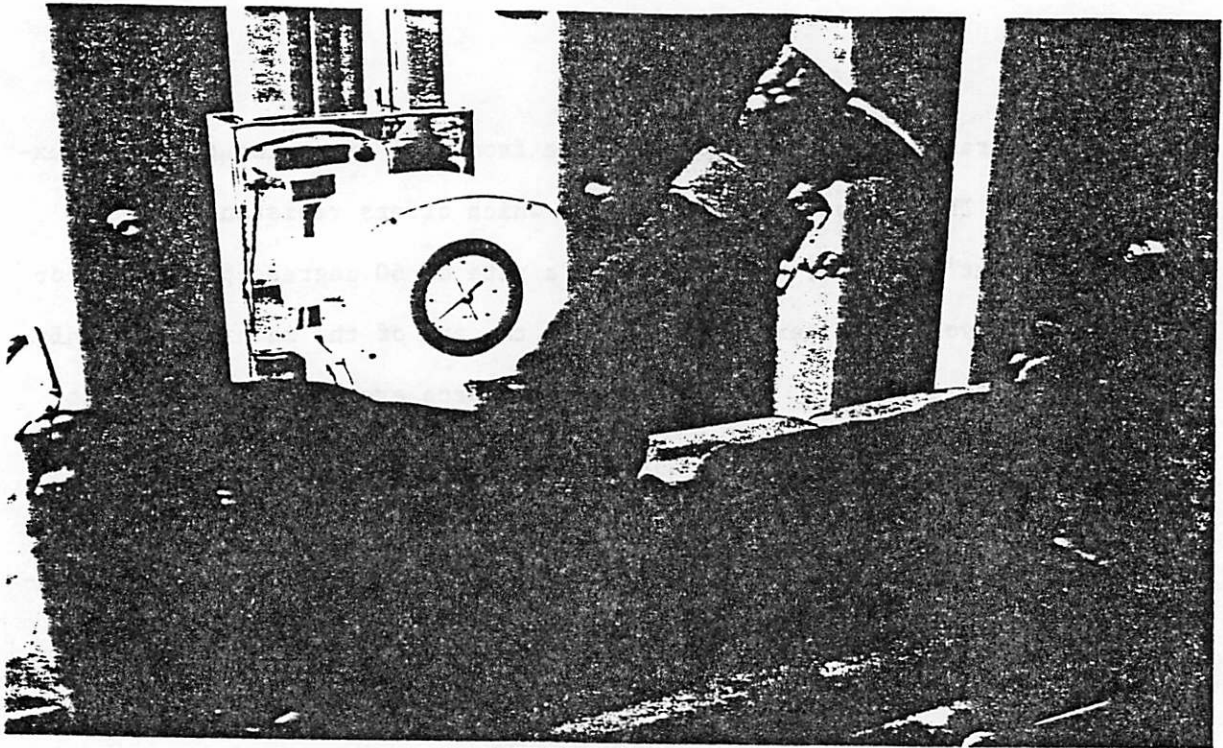


FIGURE 1

The height of the peak on the physiograph read-out was used as an index of measurement of the muscle's torque or foot pounds maximum effort. Figure 2 shows a typical Cybex II Dynamometer graphic read-out relating hamstring strength with the phase of respiration in a patient after correction of a respiratory fault. Each peak is the read-out for one contraction.

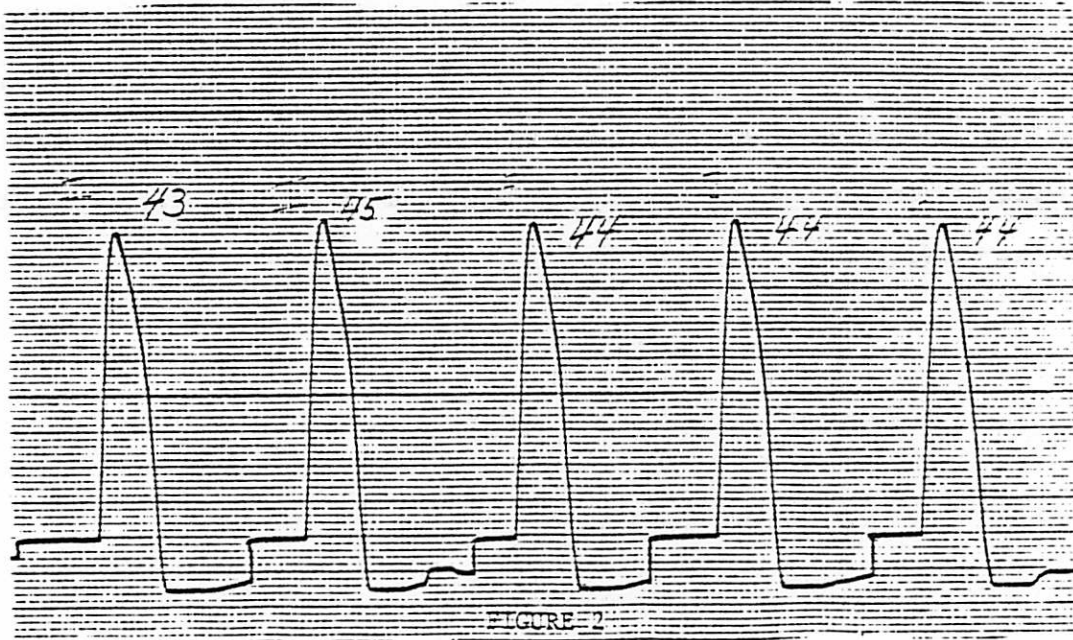


FIGURE 2

The total of the heights of the five peaks for full inspiration was compared to the total of the heights of the five peaks for full expiration. A difference in the totals of greater than five per cent was considered significant. The five per-cent is an arbitrary figure, at this point, and is used merely as an attempt to rule out random changes due to the miscellaneous variables involved in the clinical testing of human beings.

The eight patients who exhibited significant changes in muscle strength coincident with respiratory changes on the cybex testing were retested on the cybex, following correction of the fault that was indicated. Only those who showed an initial cybex evidence of a "respiratory fault" were corrected and re-evaluated. The retests were done at various time intervals following correction. The time intervals for the retests range from immediately following correction to over six weeks following a correction of the indicated fault. This variation in the time intervals was done purposely, to evaluate the temporary or permanent affect of the correction. The specific corrections used were the standard applied kinesiology corrections for the simple sacral and cranial inspiratory and expiratory faults.⁵

RESULTS

Eight of the twelve patients exhibited "respiratory fault" involvement with the cybex muscle testing. Four of these patients had exhibited the same respiratory fault with manual testing. Three patients who had initially exhibited a respiratory fault with manual muscle testing did not exhibit this fault with the cybex muscle testing and no longer

		Each Number Represents Sum of 5 Peaks				% Difference Between Total I & Total E		Time Between Correction & Post-correction Tests
		Pre		Post		Pre	Post	
		I	E	I	E			
Patient #1	Left	186	174	189	187	6.5%	1.1%	16 days
Patient #2	Left	149	139	205	203	7.2%	1.0%	47 days
Patient #3	Right	120	93	109	116	22.5%	6.0%	10 min.
	Left	137	109	102	103	20.4%	1.0%	"
Patient #4	Right	94	106	113	118	11.3%	4.2%	10 min.
	Left	103	111	95	98	7.2%	3.1%	"
Patient #5	Right	220	188	163	151	17.0%	7.4%	15 days
Patient #6	Right	95	104	143	149	8.7%	4.0%	10 min.
	Left	112	129	143	147	13.2%	2.7%	"
Patient #7	Right	147	162	140	141	9.3%	.7%	10 min.
Patient #8	Left	141	154	137	142	8.4%	3.5%	20 min.

TABLE 1

exhibited the fault with manual testing after the cybex testing procedures. Of the eight patients who exhibited respiratory involvement with the cybex, all eight exhibited a total normalization or a significant trend toward normalization on the cybex retesting following correction of the fault indicated by the original cybex testing. Manual muscle testing exhibited the same normalization of all eight patients following treatment. Results for these eight patients who exhibited significant respiratory changes on the cybex and were corrected and retested are in Table 1. Note that because three patients had bilateral involvement, there are eleven sets of data comparing the percent difference between inspiration and expiration before and after correction of the respiratory fault.

DISCUSSION

The fact that only four of the ten patients exhibiting manual muscle testing evidence of respiratory involvement exhibited the same evidence with the cybex equipment raises some interesting questions. The merits of several possible explanations are discussed here.

First, it is possible that this examiner is only 40% accurate with manual muscle testing. However, it is more likely that specific parameters regarding the two types of testing require further refinement and definition.

Recent data with simultaneous measurement of muscle strength along with electromyography⁶ seems to indicate that what is often perceived manually as a "weak muscle" may actually be more of a "late muscle". Although the weak muscle, according to manual tests, can sometimes exhibit the same force as the strong muscle when tested on the cybex, its electrical activity occurs at a later point in time relative to the initiation of contraction. The addition of EMG measurement to the data presented here could possibly change the

percent correlation between the two types of testing by adding another factor to the cybex tests which may help to reveal more properties of a weak muscle. However EMG was purposely not used here because the intent of this investigation was to examine the correlation in strength or force measurements only. The further refinement of skill relative to the timing during a manual muscle test may also improve the correlation.

The manual test involves an isometric (taken into eccentric) contraction and tests the "locking ability" of the muscle in a partially contracted state. The cybex tests involves concentric contraction and measures the peak output of the muscle through its range of motion. In a sense, equating these two testing procedures may be like comparing apples and oranges. Perhaps only 40% of the general population exhibits the same phenomena when tested with those two different testing procedures. Or perhaps the parameters of each testing type need to be more specifically defined.

It is also of interest that three patients who exhibited respiratory involvement with manual tests but no involvement on the cybex then showed no involvement with manual muscle testing immediately following the cybex testing procedures. Possible explanations for this observation are that; 1) perhaps certain people can have respiratory faults at least temporarily corrected by vigorous physical activity, such as cybex testing. In other words the actual process of making measurements may alter that which is being measured. Or, 2) some people may exhibit a fatigue factor in the actual strengthening or weakening (facilitation inhibition) of the muscle coincident with changes in respiration. If this is the case, any prolonged testing would fail to accurately detect the presence of a respiratory fault in those people.

The 100% correlation in the group that shows cybex testing evidence of a respiratory fault and correction of the fault is of great interest. The fact that everyone in this group exhibited a complete or significant normalization of the aberrant pattern following correction of the fault validates the existence of respiratory faults, as well as the effectiveness of the standard applied kinesiology correction in eliminating the fault (or evidence of the fault). The permanent nature of the correction is illustrated by the fact that the tests which were done 15, 16, and 47 days as well as ten minutes after the correction of the fault all show a significant normalization of the aberrant pattern.

As a point of interest as well as a bit of self criticism, it is pointed out that the cybex tested patients could have been better stabilized by strapping the pelvis to the table. The inadequate stabilization, allowing the pelvis to rise from the table during the hamstring contraction, was noted part way through the data gathering and was not changed, for the sake of consistency. This may have been a significant factor in some patients, because this failure to stabilize may have decreased the isolation of the hamstrings. If the hamstrings are the only muscles affected by the respiratory fault, this factor would decrease the potential of revealing a hamstring weakness with cybex equipment. Any further testing of this nature should utilize stabilization of the pelvis.

An unexpected observation that deserves description is that one of the two individuals who were intended as normals because of no obvious respiratory fault with manual muscle testing, exhibited a significant respiratory fault bilaterally with the cybex testing. Because the cybex

testing showed evidence of abnormal respiratory involvement, the patient was one of the eight who were then corrected and retested. As with the others, he showed a normalization of the respiratory pattern following correction. The fact that this individual, a well trained weight lifter and an expert in muscle substitution, is extremely strong, may be the reason why his respiratory fault was not detected by manual muscle testing. This discrepancy probably indicates a lack of skill, of the manual muscle tester, at precision isolation of a specific muscle on a "difficult-to-test" patient.

It is also noted that the cybex testing was done in a more methodical manner than the manual tests. Whereas each cybex test was actually a compilation or total of five individual tests, each manual test was a conclusion reached following only two or three comparisons between full inspiration versus full expiration. Further studies of this nature should equate the same number of manual tests as machine tests before reaching a conclusion.

CONCLUSION

The data presented here indicates a direct correlation between manual muscle testing and its ability to detect a respiratory fault with detection of the same fault through cybex testing in 40% of the population tested. Factors were discussed regarding the lack of correlation between the two types of testing. Of those who exhibited significant strength changes on the cybex coincident with respiratory changes, 100% exhibited a normalization following standard applied kinesiology correction of the respiratory fault. This is significant objective documentation of the existence of respiratory faults and also validates the effectiveness of standard applied kinesiology procedures in the elimination of respiratory faults.

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KINESIOLOGY and OCCULT

by

Wm. R. Borrmann, D.C.

ABSTRACT: Many patients have been coming into many chiropractic offices and telling their doctors that what they are practicing is occult. They have been attending classes that are teaching them that kinesiology, reflex, acupuncture, and treating points on the body or investigating points on the body is associated with witchcraft or occult practices.

Many doctors have written me or called me and asked if there was an explanation that could be used to answer these accusations. These notes are an attempt to explain their unfounded fears. It must be understood that many of these patients have become christians (born again christians) and are now attempting to follow the teachings of the bible as literal as they can in regard to the occult practices as taught in the scriptures and the healing practices as taught in the scriptures.

KINESIOLOGY and OCCULT

1.

These notes are an attempt to answer the label of occult any thing that is not understandable, or does not fit into the scientific norm or religious thinking of to-day. This attempt to label as occult anything that is different or unknown has been around for a long time. In the days of the pilgrims people were accused of being a witch and practicing witchcraft when ever they healed anyone through the use of natural herbs. During the Inquisition of the dark ages, the religious leaders of the day accused any one of witchcraft who did not agree with there understanding of scripture or who used any other means to heal, except those that were agreed upon by the church fathers.

Last year I did an extensive study of the occult as it is described in scripture to answer many of the questions patients have ask about the relationship of the occult to medicine and chiropractic, the healing arts in general. The relationship of the occult to acupuncture and acupressure . The relationship of the occult to nutrition. The relationship of the occult to applied kinesiology (muscle response testing). The relationship of reflex therapy (treating invisible energy centers). The relationship of the occult to bio-magnetic therapy (the use of magnetics and the laying on of hands). All of these questions are centered around one basic theme FEAR OF THE UNKNOWN or FEAR OF SCRIPTURAL DISOBEDIENCE. FEAR!

To answer many these questions I had to begin with the creations of man and woman and their relationship to creation, satan and occult practices condemed by God in the scriptures.

I MAN AND WOMAN COMPOSITION

Genesis 2:7 and the Lord God formed man of the dust of the ground, and breathed into his nostrils the breath of life, and man became a living soul.

Genesis 2:22 and the rib, which the Lord God had taken from man, made he a woman, and brought her unto the man.

Genesis 2:23 and Adam said, This is now bone of my bones, and flesh of my flesh:

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The word formed, in Hebrew is yatar, meaning to mold or squeeze into shape as a potter does. Indicating that the body was formed but the soul and spirit were to be created. The word dust, in Hebrew is apha, meaning mud, rubbish and translated to earth, dust, ground, mortar, powder and rubbish throughout scripture. Therefore man as well as woman was formed from the earth. The earth with its composition of minerals and having a bio-magnetic nature was formed, molded or squeezed into man giving man his basic mineral and magnetic composition.

The word breathed, in the Hebrew naphach, meaning to breath out, puff, inflate, blow hard, means what it says, God breathed into man breath of life.

The word breath, in Hebrew is neshamah, meaning the air inhaled and exhaled or respiration. Doesn't mean the soul and spirit of man, for the spirit and breath are distinguished in Job: 34:14 "he gathered into himself his spirit and his breath." The breath is simply that part of the human being that brings in oxygen and ex-hales CO2 which is ionized as it passes through the nostrils into negative and positive energy (ions) which assist in keeping body and soul alive. I suggest you try substituting breath where ever spirit and soul are found in the bible and see if it makes any sense.

The word life, in Hebrew is chayim, meaning lives (plural) not life. Because it made the body, soul and spirit live and function together.

The word soul, in Hebrew is nephesh, meaning a breathing creature, a living breathing organism, the invisible spiritual part of man. It is used to describe both man and animal in scripture. Scripture speaks of the soul that feels (man's five senses and mind) and the spirit of man that knows. It is also translated heart.

Note: the word soul in Greek, psuche, meaning live, emotions, passion, feelings, desires, self, mind, heart and appetites. It is used in the New Testament to express

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God therefore formed a man from the elements of the earth with all its mineral constituents and bio-magnetic composition, created a soul and spirit and fused it all together with the breath of lives. From this creation he removes a rib and forms woman which would be composed of the same composition as man. A perfect being walking with God having full dominion over the earth and all it contains. Walking in all the perfect laws of God (laws of cause and affect), having only one law which he must not break.

II WHAT HAPPENED TO THIS GLORIFIED BODY WORKING AND WALKING ACCORDING TO THE PERFECT LAWS OF CAUSE AND AFFECT.

First we notice in Genesis 2:17 the law: "for in the day that thou eatest therefore thou shalt surely die."

Second we find the penalties for breaking the law: "unto the woman he said, I will greatly multiply thy sorrow (Hebrew word *etseb*, meaning pain and travail) and thy conception: in sorrow thou shalt bring forth children; and thy desire shall be to thy husband, and he shall rule over thee. Genesis 3:16.

In Genesis 3:17 we find the penalty for man and the earth: "unto Adam He said.... cursed is the ground for thy sake; in sorrow shalt thou eat of it all the days of thy life." In verse 19 we find the penalty: "in the sweat of thy face shalt thou eat bread, till thou return unto the ground; for out of it was thou taken; for dust thou art, and unto dust shalt thou return."

God had created the law of cause and affect when he created the world and had forewarned Adam of the consequence for breaking the law. Adam has now surrendered the earth and all it contains as well as his life and Eve and all children born to Satan. He has surrendered the perfect law of eternal life to the law of sin and death. The law of cause and effect as well as all the other laws...

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of satan to usurp (reverse), to use them against man. Man and woman are now cursed in their bodies, first by a spiritual death (separation from God) and second by a physical death (they must return to the elements from which they were formed). Man must now work and sweat to maintain the health of his body and to await with hope and faith in the promise of God made in Genesis 3:15 "and I will put enmity between thee and the woman, and between thy seed and her seed: it shall bruise thy head, and thou shalt bruise his heel." A promise to restore their spirit and restore their right relationship with God through his Son Jesus Christ.

If we take a closer look at the curse on man and woman we will find:

1. they must endure hard labor to make a living to stay physically whole.
2. the very elements were to be abnormal, weather would fight against man.
3. the plant life would rebel against man.
4. animal and insect life would rebel against man. This is why God put the fear of man into animals.
5. woman would have pain in bearing children
6. woman desire would be to her husband.
7. the earth, deserts, barrenness, water (floods ect) would fight against man.
8. germs, bacteria, poisons in the earth and air would fight against man.
9. planets were effected creating weather changes as well as magnetic changes that would effect the health of man.

Satan the usurper of God's law had now gained control of the earth, man, the universe and all they contained. He is not a creator, but a deceiver of the law. He can only take what is there and reverse it. He reversed the law of eternal life and made it the law of sin and death. On this were the occult practices built and fear entered the universe.

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(SATAN'S RELATIONSHIP TO OCCULT CONTINUED)

Satan introduced the law of sin and death to the universe at the fall of man. When you discuss the occult realize that satan is not a creator, he only can reverse God's laws of cause and effect. Satan changes :

1. the law of eternal life to sin and death.
2. the law of faith to fear.
3. the law of love to hate.
4. the law of joy to anger.
5. the law of belief to disbelief, doubt. (Gen 3:4-5, Rom. 14:23.)
6. the law of prophecy to fortune telling, astrology, ect.
7. the law of miracles to magic.
8. the law of divine healing to sickness, disease, illness. (Lk 13:16, Acts 10:38)
9. the law of peace to anxiety.
10. the law of word of knowledge to ESP, divination, witchcraft.
11. the law of hapiness to sadness.
12. the law of a sound mind to insanity.
13. the law of light to darkness and opression. (2 Corth. 4:4, 2 Pet 1:4-9)
14. the law of strength to weakness. (Heb 6:1, 9:1-4)
15. He the enemy of all good, father of lies, the accuser of God and man, murderer, sower of discord, malignant, thief, without principle, wicked, cunning, tempter, adversary, cowardly, slanderer, deluder. The greatest and most important work of satan among man and woman today is to counterfeit the doctrines and experiences of God as revealed in scripture in order to deceive saints. 2 Corth 11: 14-15, Eph. 6:10-18, 1 Tim. 4:1-7, Rev 12: 9-12.

IV OCCULT POWERS

There were 13 pagan practices listed in scriptures which the christians where to avoid

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(OCCULT POWERS CONTINUED)

1. making children pass through the fire in worship to an idol god. (Deut. 18:10-12).
2. using divination: meaning: the effort to obtain knowledge of divine matters by the use of inspiration, fortune telling, interpretation of omens, divining rods, weege boards, tarot cards, pendulum. (Ezek 13:7, Isa. 47:9, Acts 13:6, 16:16, 19:13,14, 2 Ki 17:17, 1 Sam 6:2, Jer 14:14, 27:9,29:8, Ezek 12:24, 13:6-7,23:21-22,29, 22:28, Mich 3:7, Zech 10:2.
3. Observing of times: meaning: astrologer, one who seeks to discern the future by variations and conjunctions of the heavenly bodys. The original word is variously, translated in our version by conjurer, necromancer, prognostication, enchanter, sooth sayer, stargazer or astrologer. Isa 47:13, Jer 10:2, Dan 1:20, 2:2,10, 2:27, 4:7, 5:7-15.
4. Enchantments: meaning: a practice of magical arts, similar to witchcraft. Ex 7:11,22:8-7,18, Lev 19:26, 2 Chr 33:6, 2 Ki 17:17, 21:6, Deut 18:9-12, Rev 22:15 Deut 18:10, Isa 2:6,8:19, 19:3, 29:3,4, 47:9,12,13, Dan 1:20, Jer 14:14, 27:9, Ezek 8:7-12, 13:7, Acts 8:9-24, 13:6-12, 16:16-18.
5. Using charms on others as well as self: meaning: to put a spell upon, to make a charm and wear it, to by charms, metals, pins, believing that they will protect or are lucky. Simimilar to hypnotism, enchantment and witchcraft. Deut 18:11, Isa 19:3.
6. Familiar spirits; Meaning: seeking help from a familiar spirit through seances, automatic writing, ect. similar to witchcraft. Lev 19:31, 20:6, Dt 18:11, 1 Sam 28, 2 Ki 21:6,23:24, 1 Chr 10:13, 2 Chr 33:6, Isa 8:19, 19:3, 29:4, 1 Tim 4:1-8, 2 Th 2:8-12, Mt 24:24, Rev 13, 16:13-16, 19:20.
7. Prognostication: meaning: to foretell by indications, omens, signs, ect. Similar to observer of times. Isa 47:13.
8. Witchcraft: meaning: the practice of dealing with evil spirits, magic, omens, signs, charms, ect. Similar to wizardy and familiar spirits. Ex 22:18, Deut 18:10, 1 Sam 15:23, 2 Chr 33:6, 2 Ki 9:22, Mich 5:12, Nah 3:4, Gal 5:19-21.
9. Sorcery: meaning: similar to charms, witchcraft, wizardry, curses, magic. Ex 7:11, Isa 47:9,12, 57:3, Jer 27:9, Dan 2:2, Mal 3:5, Acts 8:9-11, 13:6-8, Rev 9:21, 18:23, 21:8, 22:15.
10. Sooth saying: meaning: similar to witchcraft. Ish 2:6, Dan 2:27, 4:7, 5:7,11, Mich 5:12.

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(OCCULT POWERS CONTINUED)

11. Wizardry: meaning: similar to witchcraft. A wizard is a male and a witch a female. Both practice witchcraft. Ex 22:18, Lev 19:31,20:6,27, Deut 18:11, 1 Sam 28:3,9, 2 Ki 21:6,23:24, 2 Chr 33:6, Isa 19:3.
12. Necromancy: meaning: communicating with the dead. Deut 18:11, Isa 8:19, 1 Sam 28, 1 Chr 10:13.
13. Magic: meaning any pretended supernatural art or practice. Similar to wizardry. Ursurping God's natural truths or laws, making things appear as truth. Gen 41:8,24, Ex 7:11,22: 7-8,18-19, 9:11, Dan 1:20,2:2,10,27, 4:7,9, 5:11, Acts 19:19.

When you examine these occult practices you will see that they involve 4 basic practices.

1. false worship, using your children as a sacrifice. Deut 18:10.
2. to obtain knowledge of divine matters through the use of:
 - a. inspiration, hynotism, necromancy.
 - b. interpretation of omens.
 - c. divining rods, weege boards, cards, pendulum ect.
 - e. to ask for help from familiar spirits, demons and or evil spirits automatic writing, trances ect.
3. to fortell future events through the use of:
 - a. astrology.
 - b. prognostication.
 - c. necromancy.
4. charming, the wearing of charms, amulets, casting charms ect.
 - a. casting spells.
 - b. wearing amulets, charms, pins, lucky charms ect.
 - c. enchantments, hynotism ect.
 - e. magic,ursurping God's natural truths.

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IV HOW DO WE DETERMINE WHAT THE PRACTICE OF OCCULT?

It comes down to laws of bible interpretation.

- A. Every doctrine must be proved by two or more scriptures. (2 Corth 13:1, Mt 18:16, Deut 19:15-18.
- B. It must be settled once and forever that the Bible does not contradict itself and all scriptures on a subject must be harmonized. It has a way of confusing its enemies and blessing its friends. You must get a general knowledge of the history of the Bible peoples and kingdoms so as to understand Bible history as well as the general knowledge of the plan of God in the Bible, of the ages and dispensations and the ultimate purpose of God to defeat Satan, restore man's dominion, rid the earth of all rebellion, and establish an eternal kingdom on earth ruled by God, Christ, and the resurrected saints. Gen3:22, 9:12, Isa 9:6-7, Lk 1:32:33, Rev 11:15 20:1-10, 22:4-5.
- C. Give the same literal meanings to words, and apply to the Bible the same rules of grammar, figures of speech, types, symbols, allegories, parables, poetry, prophecy, history, and all other forms of human expression that you would if they were found outside the Bible.
- D. Never change the literal meaning of scripture to a spiritual, mystical, symbolic, or figurative meaning unless it is done by God Himself. Take everything in the Bible literally unless this could not possibly be the meaning. When the language is used in a figurative sense get the literal truth conveyed by it. Get a complete concordance such as "Strong's" and "Young's" to look up any subject and to define any Hebrew or Greek word if there is any question of proper translation.
- E. Study it, not to disprove it, but to master its sacred contents and conform to its teachings and you will find it to be in unity.

Using these laws and rules one can investigate all healing practices that are accused of being associated with occult. Using these rules and comparing the occult practices to muscle testing, invisible reflex centers, acupuncture, medicine, nutrition, bio-magnetic therapy and acupressure. We have found no adverse scripture against muscle testing. On energy centers which cannot be seen we may refer to Heb 11:1 "now faith is the substance of things hoped for, the evidence of things not seen." and Rom 1:20 "for the invisible things of Him from the creation of the world are clearly seen, being understood by the things that are made, even his eternal power and Godhead;

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so that they are without excuse. On the use of means such as food, exercise ect, we find in 2Ki 20:7 and Ish 38:21 the use of figs, in Luke 10:34 and 1 Tim 5:23 we find the use of wine and oil, in 1 Tim 4:8 we find exercise and in Acts 27:34 we find food. There are many other references such as rest, herbs, laying on of hands, the shadow of Peter causing healing, water causing healing, mud causing healing, spit being used to assist healing ect.

God created into man as well as animals many reflex centers that are invisible to the eye yet can be measured with sensitive equipment as well as hand held instruments. A simple tap on the patella measures the invisible reflex center with a jerk response, pins and wheels measure the invisible reflexes of the dermatones, a flashlight shined into the eyes elicits the invisible reflex of the iris which is a measurement of adrenal function. ECG and the EKG measures invisiable electrical energy centers that are produced by the heart and brain respectively. The list could go on and on as God reveals further knowledge of his created body to us we can do more and more to assist God in the healing of the whole man.

Hosea 4:6 states "my people are destroyed for lack of knowledge (knowledge of God and his ways) because thou hast relected knowledge, I will also relect thee, that thou shalt be no priest to me: seeing thou hast forgotten the law of they God, I will also forget they children." Couple this with the prophey of Daniel 12:4 many shall run to and fro, and knowledge shall be increased. God in his scripture reveals to us of his love, and love is supply the needs of the one you love. If we spend our time looking for the negatives in scripture rather than God's truths we will end up in the bondage of fear which is the opposite of faith in God's promises.

To those who worry about the unseen energy centers on the body they must remmember that they are in contact all day with the cloths people wear, they are rubed over in the shower and in the process of drying ones self. They are cut into by the surgeon, adjusted by the chiropractor, they are constanly being touched.

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As you investigate the occult as described in the scriptures you will find that in all of the 13 pagan practices the body it self is not included. Only those practices by which something is put on it as charms ect, or magical arts, where the 5 senses are lied to or curses are put on it. The body as designed by God in all these practices is an attempt to destroy it not to heal it. When you examine the scriptures on the practices of satan you will find out he is a liar, and a usurper of God's law, he is the opposite all that is good. He is not a creator, he is a duplicator. Where God's promise to man is health or wholeness, satan desires disease and sickness, His occult practices never have included the healing of man, he is sickness and disease, he is sin and death.

Those who are deluded in believing that satan will use any method to make people well falling for one of satan's lies. Satan never heals. Any technique used by satan will always result in disease, illness, sickness, sin and death. God is health, joy, and peace leading man to eternal life not sin and death.

We must not allow others to interpret the bible for us only to guide us. Many chirstians do not get in to the word and meditate on it so to allow the Holy Spirit to reveal to them its truths. We read books, listen to speakers, go to classes ect, and allow them to teach us and to interrpret the word for us, this is not want scripture says we should do. In Joshua 1:8 God states this book of the law shall not depart out of they mouth; but thou shalt meditate therein day and night, that thou mayest observe to do according to all that is written therein: for then thou shalt make thy way prosperous, and then thou shalt have good sucess. In Psalms it states it this way in verse 2 but his delight is the law of the Lord; and in his law doth he meditate day and night. In 3 John it states Beloved, I wish above all things that thou mayest prosper and be in health, even as thy soul prospereth.

It must be remmemberd that when any healing technique is used and a patient suffers adverse symptoms that to put the blame on occult is not always true. The doctor must

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be compared to scripture teachings, the technique must be compared to occult practices as described in scripture and the rules of interpretation applied. If the technique is used throughout the nation by other doctors, does it make everyone sick or only a select few? Satan does not heal anyone. Find solid christians that are in the word pray together and meditate on the word, you should all be in agreement the Holy Spirit is not the author of confusion. Talk to a Spirit filled pastor and have him pray about it. Talk to spirit filled practioners who are using a particular technique that you suspect and see what God through the Holy Spirit is telling them. There should always be agreement over God's word.

I would like to end this paper with Ephesians 2:10 For we are his workmanship, created in Christ Jesus unto good works, which God hath before ordained that we should walk in them. If the credit for healing is given to the Father in the name of Jesus Christ satan has no hold and cannot come against it for Jesus came to set us free from the works of satan.

God Bless

Wm. R. Borrmann, D.C.

A BOOK AND FILM REVIEW
OF
"NUTRITION AND PHYSICAL DEGENERATION"
BY

JOHN W. BRIMHALL, B.A., D.C.

ABSTRACT: The late Dr. Weston A. Price was a dentist who traveled to foreign lands and visited fourteen (14) primitive tribes in search of the etiology of dental caries and other health problems. Dr. Price made overwhelming discoveries and his book Nutrition and Physical Degeneration, a comparison of primitive and modern diets and their effects, is proof positive of not only these etiologies, but the "nutritional subluxation". This study compliments the Pottenger Cat Study that I presented in Hawaii during December, 1979.

Dr. Price's book and film demonstrate that people living under primitive conditions have excellent teeth and excellent health in general. Travelers, explorers and scientists have, over the years, documented studies of this. In addition, we have documented proof that more civilized populations possess wretched teeth which begin to decay almost by the time they have erupted.

Dr. Price makes the comment that "it seems extraordinarily stupid that we have been concentrating our attention on trying to straighten out crooked teeth and trying to straighten out poor health rather than preventing either". It seems only people would substitute "scientific knowledge" for horse sense.

Nine observations that summarize and illustrate Dr. Price's conclusions are as follows:

1. Dental caries are primarily nutritional in origin.

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2. Although radically different, all fourteen (14) tribal diets consisted of raw food native to the individual tribe, and all provided almost complete immunity from tooth decay.
3. Laboratory analysis revealed that all of these diets were unusually high in protein, vitamins, minerals, and fat soluble factors.
4. Contact with civilization, followed by adoption of the 'foods of commerce', i.e., sugar, white flour and canned goods, was disastrous for all groups studied.
5. Multiple dental caries were followed by progressive facial deformities in children born to parents consuming the sugar, white flour and other "empty calories".
6. These changes consisted of narrowed malar bones, dental arches and crowded teeth, as well as other degeneration. The tribal pattern was lost.
7. Significantly, when some of the natives returned to their traditional diets, open cavities ceased progressing: Moreover, children now conceived and born, once again had perfect dental arches and no tooth decay.
8. If civilized man is to survive and improve, instead of get worse, we must apply the fundamentals of primitive nutritional wisdom to modern times.
9. The application of Dr. Price's findings can be applied to health and the practice of chiropractic.

A very important observation is: That many of our diseases and deformities are being interpreted as hereditary, where in reality they are intercepted heredity due to eating 'empty calories' and foods deficient in protein, vitamins, minerals and fat soluble factors.

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At the same time, the disturbances with our development of the bones of the head and jaw are taking place, there is also a disturbance of the development of the brain and all the rest of the nervous system that we, in chiropractic, deal with. The diet of the people in our western civilization actually causes internal environmental problems that appear as hereditary predispositions.

The idea of Dr. Price's work being published, as well as my presentation being given, is to demonstrate that the only way we are going to correct certain tragic expressions of our modern degeneration, such as tooth decay, general physical degeneration, facial and dental arched deformities, character changes and many nutritional subluxations is, in fact, to go after the cause of the problem. The cause in many of these cases is not the subluxations but, first, the subluxation causer or diet.

It is hard for the chiropractor to be a hero to the patient who does not have the ability of innate to communicate through a normal spine, to chew and calibrate through normal TMJ, and to allow the brain and nervous system to communicate with each tissue cell when they are improperly developed at the beginning.

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SCOLIOSIS PROTOCOL

Katharine M. Conable

ABSTRACT: A summary of procedures and references specifically relevant to the treatment of scoliosis from the literature of Applied Kinesiology and other sources.

This fall I had an interesting experience. A young girl whom I had been treating for a mild idiopathic scoliosis was reevaluated by her orthopedist. To the parent's great upset, this doctor pronounced her worse, and frightened them with stern talk of braces. Regardless of the obvious politics of this situation, or the fact that the second film was positioned differently than the first, regardless of the actuality that her scoliosis was not worse, it was not better.

This made me take a long look at what I was doing. From the start I had been taught that chiropractic was the treatment of choice for scoliosis, and that of all things, Applied Kinesiology should be among the most effective approaches in producing balance in an imbalanced spine. I had been doing "everything" and hadn't made a dent in a still-flexible, mild, scoliosis.

The importance of this episode to me was not as much whether I was doing well for this particular patient, or whether I had helped other scoliotics or not, but rather that it thoroughly shook the complacent assumption that I had to have

been doing enough. In looking my program over, I found several major areas of treatment I had left out.

I have undertaken a program of restudy of body mechanics for myself, and have already learned a great deal. I have been reevaluating my basic body-mechanics education and studying new references in this area, both medical and chiropractic. I have found considerable controversy and conflicting data, that seemed to be the source of some very fundamental confusion in this area. There is much useful data to be had, which I can evaluate and apply much better with my eyes cleared of the "I must already know this" assumption.

This paper is a summary of references specifically relevant to scoliosis from the literature of Applied Kinesiology and a few other sources. It can be used as a checklist for evaluating and treating scoliotics as well as a study guide.

I would like to acknowledge the very valuable time Drs. Goodheart, Thie, Deutsch, and Hanicke have spent this fall, sharing their experience with scoliosis with me.

Idiopathic scoliosis and spinal curvatures of more obvious etiology have been studied for centuries, and many theories about the mechanisms involved have been proposed.⁶ I am interested here mainly in the types of scoliosis not obviously caused by gross spinal abnormalities such as hemi-vertebrae, but rather in those curvatures in which the bony structure is apparently normal, at least initially.

Michelle^{6.} explores the history of theories on scoliosis and various modes of treatment which have been used over the centuries. His conclusion is that a failure of lengthening of the iliopsoas muscle, as the person assumes the upright posture, is the operative factor in creating the rotatory, "idiopathic" type of scoliosis. He advocates the use of psoas-stretching exercises and Truscott's derotation exercises in the management of functional scoliosis, and the standard medical bracing and surgery once maximum correction is achieved.

In the chiropractic field, Hugh B. Logan^{5.} investigated scoliosis and spinal curvatures extensively in the 1930's and 40's, and came to the conclusion that the operative factor in the development of scoliosis was an unlevel foundation of the spine - whether from anatomical leg deficiency, fallen arches, sacral subluxation, or vertebral wedging. The spinal rotation was seen as the body's attempt to re-level itself by rotating the thicker anterior dimension of the lumbar to the lower side of support.

Lowell Ward^{7.} has expanded on some of Logan's concepts and adds the physiologic short leg as a source of spinal unleveling. He also has developed detailed X-ray analysis of curvatures in both A-P and lateral planes.

Goodheart^{2;}(77) citing Ronald Watkins, D.C. (1948) and the early chiropractic "Aquarian Age Healing" of Hurley and Saunders, has developed a technique of activating the cloacal centering reflexes, which operate in various animals for sexual "centering". A failure of balance between the Right and Left

components of this reflex was proposed as a mechanism in the development of scoliosis. This, with the complex development of reproductive cycles in the female is thought to be a reason for the predominance of idiopathic scoliosis patterns in adolescent females.

Along this line of a hormonal cycling imbalance, recently Goodheart^{2.(79)} has reported a marked change in a scoliosis following cranial adjusting and nutritional support of the pineal gland - a gland having importance in biological cycling and maturation rates.

Through out the development of Applied Kinesiology, and particularly in the past year, work with head-pelvis leveling and the "pitch-roll-yaw" patterns of head and pelvis motion has provided new insight into mechanisms of chronic spinal distortion. This work has also given us greater precision in the use of heel lifts to temporarily change weight-bearing and initiate spinal changes.

Much other work has been done in Applied Kinesiology on right-left balance of the body, on gait patterns, and on muscle balance patterns. Much of this is relevant to the severe muscular imbalance seen in idiopathic scoliosis.

In summary, there are several major mechanisms which seem plausibly to be involved in the development of scoliosis: 1. Unlevel support of the spine. 2. Hormonal cycling imbalances. 3. Switching - Centering - right/left imbalances. 4. Primary muscular imbalances. These clearly interrelate in many instances. It seems to me that no single factor can yet be isolated as the cause of scoliosis. It

behooves us to address factors associated with all of these mechanisms.

To this end I have developed a protocol or checklist to use in examining scoliotics. There are several main headings, with specific procedures listed under each. I have tried to order these by importance and frequency of occurrence within the major groupings. Certainly this is not a definitive statement. I am sure that optimum order of correction varies patient-to-patient. Here clinical judgement and the use of the various "priority" systems is helpful. (see Deal ICAK 79W). I have observed that patterns which initially appear to be absent in a patient may come to the fore as treatment progresses. Hence, I think it is useful to cycle through this list, checking all the areas over and over, and treating what comes up as the body changes.

POSTURAL EXAMINATION:	G 64, G 75 p.1-5, G 76 p.96-101 G 77 p.94-97, G 78 p.128-131	
Standing Height		
Standing Posture		
A-P Flexion		
Lateral Flexion		
Pelvic Pattern		
Short Leg: Anatomical		Watch for apparent
Physiological	G 78 p.142	changes in pelvic pattern
Compare Sitting, Prone, Supine		in different positions. Challenge to identify actual pattern.
X-RAY EXAMINATION		
Standing Films	Many standard chiropractic references - Lowell Ward, Gonstead, H.B. Logan, etc.	
Anomalies		
Suspect Anatomical Short Leg		
Degree of Scoliosis		
Head-over-pelvis Balance		
COMPLETE MUSCLE TEST	Many A.K. references	
Include detailed torso muscles.	Beardall ICAK 79S p.11	
SWITCHING/CENTERING:		
K-27 - Umbilicus	G 71 p.49-51, G 73 p.65-67, G75 p.28-29, G 76 p.128-129, G 77 p. 113, 41-42, G 78 p.75-76, 147, G 79I p.147-8, Durlacher ICAK 73-75 p.127, Bandy ICAK 77S p.13, Coblentz ICAK 77W p.33, Gunn ICAK 79S p.125	
Pitch-Roll-Yaw (Head-pelvis leveling)	G 79-1 p.24-26, G ICAK 79W lecture	
Cloacals	G 77 p.11-16, G 78 p.45-50, G 79-1 p.117-123, Beardall ICAK 77W p.7, Sinett ICAK 78S p.291	
Gaits	G 74 p.26-34, G 75 p.45, 46, 69, G 76 p.146-148, G 77 p.123, 125, 139, G78 p.157-59, 173, Beardall ICAK 76W p.101, Colum ICAK 77S p.53, Leaf ICAK 77S p.266, 270, Leaf ICAK 77W p.205, 207	
Cross-Crawl	G 69 p.28-30, G 70 p.11-22, G 71 p.29-30, G 73 p.61-65, G 74 p.36-37, G 65 p.66, G 76 p.171, G 77 p.137-8, G 78 p.171-2, Deutsch ICAK 73-75 p. 113, T. Franks ICAK 73-75 p.143 R. Stevenson ICAK 76W p.72, Beardall ICAK 76W p.77, R.Gleeson 78S ICAK p. 135, Kaiser ICAK 79S p.185	

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SWITCHING / CENTERING Cont'd.

R/L Brain Phenomena	G 78 p.174; G 79-1 p.53-56; W. Hammer ICAK 78S p.149	
Hyoid	G 77 p. 26-31; G 78 p.65-66, 174; G 79-1 p.53-56, 132-137	R/L Brain Balancing R/L Energy Balancing
Ocular Lock	G 73 p.58-60; G 74 p.39-40; G 77 p.41-42; Diamond ICAK 78S p.85	
C7 - Rib 1 Fixation	G ICAK 79W Lecture	Factor in R/L balance & chronicity
Figure - 8 Energy Patterns	G 75 p.43-44; G 76 p.145-146; G 77 p.123; G 78 p.157; Rodriguez ICAK 73-75 p.267	
Ionization	G 76 p.15-29; G 77 p.51-57; G 78 p.85-91	
Diaphragm- Energy Tech- nique	G 76 p.29-38; G 77 p.57-62; G 78 p.91-96	
"Pre- & Post Ganglionic" or Alarm Point-Chakra	G 76 p.45-50; G 77 p.65-68; G 78 p.99-102	A-P Energy Balance
Cx 6 - Sp 4	G 75 p.44; G 76 p.146-147; G 77 p.123; G 78 p.157	Used unilaterally to increase energy to that side.

MUSCLE BALANCING

Muscles Weak in the clear	G all manuals; Many ICAK papers	5 Factors
Specific Torso Muscles	G 69Reprints p.72-74 G 76 p.52-56; G 77 p.70-72; G 78 p.104-106; Beardall ICAK 76S p.254; Beardall ICAK 79S p.11	Intrinsic Spinal Muscles Divisions of Rectus Abdo- minis. Additional torso muscle tests
Reactive Muscles	G 76 p.1-14; G 77 p.43-50; G 78 p.77-84; Schroeder ICAK 73-75 p.301,309; Conable ICAK 73-75 p.89; Deal ICAK 73-75 p.105; K. Hovey ICAK 76S p.337; Triano & Davis ICAK 76W p.50; T. Franks ICAK 77S p.151; McSride ICAK 78S p.217; Frasca ICAK 78W p.101	Look for reactivity between various major torso mm.- e.g. r - l psoas, and for sequences of reactive mm. foot up to eye mm. (Deutsch
Reactive M. Sequences	Deutsch ICAK 76W p.68; Deutsch ICAK 78S p.73 Klein ICAK 76W p.127	Eye m. balancing

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MUSCLE BALANCING Cont'd.

- Muscle Spindle - Golgi Tendon Organ, challenge of paraspinal mm. G 75 p.45; G 76 p.147-148
G 77 p.124; G 78 p.158;
Colum ICAK 77 Presentation Challenge of M.Spindle and GTO's of Paraspinal mm.
- Law of the Ligament G 69 Reprints p.146-149; G 73 p.3-22
- Fascial Release G 70 p.24; G 78 p.1-12; G 79-1 p.73-84, 103-105; Deutsch ICAK 78S p.81; Feder ICAK 78S p.113 Check many planes and angles of stretch of torso for intrinsic muscles (Thie) Include iliopsoas.
- Muscles Affecting Rib Angle:
- Levator Costalis G 74 p.48-49a
Serratus Posterior Sup. & Inf. G 78 p.37-38; G 79-1 p.8
Pectoralis Minor & Fascia G 79-1 p.7-8
- Foot Squeeze: Positive Supporting Reaction of Extensor Muscles G 78 p.50-51; G 77 p.16-17
- Muscle Torque Patterns G 73 p.67-71
- Skin Circuits G 77 p.6-11, p.22-23; G 78 p.56-57
- ADJUSTMENT OF SPINE & PELVIS
- Many specifics throughout G Manuals and ICAK papers Check lying, sitting, standing and in other positions, and in motion.
- Pelvic Categories G 75 p.5-20; G 76 p.101-120;
G 77 p.97-108; G 78 p.131-142;
Borrmann ICAK 76W p.1; Sanna ICAK 77S p.269
- Sacral Wobble G 74 p.45-48; G 75 p.40-41; G 76 p.142-143; G 77 p.121; G 78 p.155;
Mein ICAK 77S p.290; McCord ICAK 78W p.139
- Challenge & Adjust Pelvis & Spine G 69 Reprints p.134-137; G 72 p.2-5;
G 73 p.30-34; G 74 p.8; G 75 p.37-38
G 76 p.139; G 77 p.119; G 78 p.153
All ICAK papers collections - many specifics on adjustment.
- Coccyx G 73 p.46, 54 R/L deviations
G ICAK 79W Lecture A/P, S/I as take-up for correction

ADJUSTMENT OF SPINE AND PELVIS Cont'd.

- Fixations** G 69 Reprints p.143-145; G 70 p.1-7; G 71 p.1-10; G 72 p.6-8; G 74 p.8b; G 75 p.34-37; G 76 p.135-138; G 77 p.117-118; G 78 p.151-152; Jackowski ICAK 76S p.119; Achilly ICAK 76S p.120; Schmitt ICAK 76S p.121; Bernzott ICAK 76S p.129; Allen ICAK 78W p.1; Sanna ICAK 79S p.267
- Gravity Fixations** G 76 p.50-52; G 77 p. 68-69; G 78 p.102-103
- Rib Fixations/Subluxations** G 72 p.9; G 78 p.37-38; G 79-1 p.109-110; Zmenak ICAK 77S p.459; T. Franks ICAK 78S p.127
- Imbrication** Holmes ICAK 73-75 p.179,181; Holmes ICAK 76S p.347; Manton-ya ICAK 77S p.288 Watch for L4 or L5 Imbrication on side of lumbar convexity.
- Occipital Side-Slip - Skull Rocker** G 75 p.21-23; G 76 p.121-123; G 77 p.109-110; G 78 p.143-144
- Spinal Touch/AK** McBride ICAK 79S p.199
- Basic Technique** H.B. Logan Textbook of Logan Basic Methods ; G 79-1 p.24-26
- CRANIAL ADJUSTMENT** G 68 Entire Manual; G 69 Reprints p.97-98,154-159; G 70 p.42-60; G 72 p.10-11,14,23,26; G 73 p.35-46, 56-61; G 74 p.20a,21-26; G 75 p.32-34,38-40,46-56; G 76 p.132-135, 140-143,149-159; G 77 p.115-116, 119-121,125-131; G 78 p.149-150, 153-155,159-165; T.Hovey ICAK 76S p.177; Goodheart & Schmitt ICAK 77S p.173; Minsky ICAK 77W p.245; Dieterle ICAK 78W p.45
- Pineal-affecting cranial fault** G 79-1 p.13-22, ICAK 79S G Lecture Reported to have specific effect on scoliosis (G)
- Cranial Gaits** G 74 p.42-44

CRANIAL ADJUSTMENT Cont'd.

Specific Cranial Fault: G 68 Entire Manual; Schroeder
Muscle relationships ICAK 76S p.311,314,309; Schroeder
ICAK 77S p.400,406; Schroeder
ICAK 78S p.283,285,287; Minsky
ICAK 78W p.155; Schroeder ICAK
79S p.271,273; Schroeder ICAK
79W p.95

Cranial Muscle Technique G 79-1 p.39-43

LIFTS

G 73 p.23-26; G 75 p.65-66; Watch for changes in side,
G 76 p.143-144,170; G 77 p.137; height of lift as case
G 78 p.171 progresses.

Functional Short Leg

G 77 p.121-172; G 78 p.171; G79-1 Correlate side with
p.72 PRY Technique and Oculo-
Basic side

Anatomical Short Leg

G 75 p.41-42; G 76 p.143-144; Recheck - what appears
G 77 p.121; G 78 p.155-156 andtomically short may not
be!

Correlation to R/L Brain
Function

G 79-1 p.53-56

FEET / EXTREMITIES

G 73 p.53; G 75 p.60-63; G 76
p.165-68; G77 p.134-135; G 78
p.168; Beardall ICAK 73-75 p.7;
Beardall ICAK 79S p.24

Extraspinal bone sequences

TEMPORO-MANDIBULAR JOINT

G 76 p.74-96; G 77 p.25-26,31-33,
32-93; G 78p59-60,65-67,116-127;
G 79-1 p.131-132,137-139; Hughes
ICAK 76S p.65; K. Hovey ICAK 76S
p.68; Colum ICAK 76S p.70; Heath
ICAK 76S p.73; Wieczorek ICAK 76W
p.107; Frasca ICAK 77W p.67,83;
Henrich ICAK 77W p.165; Hochberg
ICAK 78S p.165; Sandvall ICAK 78S
p.265; Spreiser ICAK 78W p.187;
E.Evans ICAK 79S p.89; Karpowicz
ICAK 79S p.181; R. Gleeson ICAK
79S p.105

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POSTURE / EXERCISE

- Alexander Technique Frank Pierce Jones Body Awareness in Action, 1976; Conable ICAK 77S p.77 Locate an experienced teacher to help the patient achieve the greatest ease and freedom of use possible, to remove habitual perpetuation of postural imbalances.
- Resetting Posture with Closed Eyes G 70 p.24; G 75 p.69; G 76 p.174; G 77 p.139; G 78 p.173; G 79-1 p.34.
- Postural Directions G 69 Reprints p.87-90; G 79-1 p.26-34
- Feldenkrais Exercises K. Hovey ICAK 78W p.105
- Cross Crawl See above under Switching/Centering Emphasize use of all planes for cross crawl and careful determination of proper head turn.
- Ilio-psoas Stretching Michele, Iliopsoas: Development of Anomalies in Man. 1962
- Derotation Exercises Michele, Iliopsoas: Development of Anomalies in Man. 1962
- Hanging from a bar
- General Fitness
- NUTRITIONAL BALANCE G 1968 p.34-47; G75 p.56-60; G 76 p.160-165; G 77 131-132; G 78 p.165-166
- Nutritional Poisoning G 79-1 p.62-72
- Nutrients for specific patterns:
- B-12-Fascial Release G 78 p.12
 - RNA-Postural Memory G 71 p.36-43; G 78 p.40
 - Wheat Germ Oil-Gravity G 74 p.49-51; G 78 p.77-78, 102-1-3
 - Raw Bone Concentrate-Reactive Muscles G 76 p.1-14; G 77 p.43-50; G 78 p.77-84
 - Pineal:Scoliosis G 79-1 p.13-21, G ICAK 79S Lecture

POST EVALUATION

Height- immediate changes
over time

X-Ray changes:

Odontoid-Sacrum

centering

Degree of Curvature

A-P Curves

Pelvic status

Lowell Ward, The Dynamics of
Spinal Stress, 1977

Many references

Many references

Paraspinal muscle balance

Flexibility

KEY

G = Goodheart Annual Research- and Workshop Procedure Manuals, followed by year and page references.

ICAK = Collected Papers of Members of International College of Applied Kinesiology, followed by year and S for summer meeting or W for winter meeting, preceded by author's name.

Other references are cited by author, title, and year.

More information is available on Dr. Goodheart's monthly research tapes and in the Applied Kinesiology textbooks by Stoner and Walther, which are already well indexed.

Although my search of the above papers was quite thorough, I may well have left out some of the possible references. This is purely oversight, not a judgement as to their value. Of course, there are many medical works and chiropractic works on scoliosis which I have not considered here.

REFERENCES

1. Feldenkrais, Moshe. Awareness Through Movement. Harper & Row, N.Y., 1972.
2. Goodheart, George. Applied Kinesiology: annual Research - and Workshop Procedure Manuals. Privately published, Detroit, Mich. 1964-1979.
3. International College of Applied Kinesiology. Collected Papers of Members of International College of Applied Kinesiology. 1973-1979.
4. Jones, Frank Pierce. Body Awareness in Action. Schocken Books, N.Y., 1976.
5. Logan, Hugh B. Textbook of Logan Basic Methods. L.B.M., Inc., St. Louis, Mo., 1950.
6. Michelle, Arthur A. Iliopsoas - Development of Anomalies in Man. Charles C. Thomas, Springfield, Ill., 1962.
7. Ward, Lowell E. The Dynamics of Spinal Stress. O & S Press, Long Beach, Cal., 1977.

SPECIFIC POINTS FOR VITAMIN B1 DEFICIENCY

by

SALVATORE V. CORDARO D.C.

ABSTRACT: Vitamin B1 is essential in the diversified role of maintaining the production of hydrochloric acid, carbohydrate metabolism, normal growth and muscle tone, the integrity of adequate brain function, the ability to endure and alleviate pain and in the treatment of psychological disorders. Despite the importance of B1, all available literature is non-specific as to proper dosage for each condition. Therefore, a search was necessary to isolate a specific point on the body which will indicate B1 deficiency and exact dosage requirements in each patient.

BACKGROUND: Vitamin B1, or thiamine, has a wide range of functions in the human body. A water soluble vitamin, it combines with pyruvic acid to form a coenzyme necessary for the breakdown of carbohydrates into glucose. It improves the digestion and absorption of foods, especially starches, sugars and alcohol, thereby functioning as an appetite control. It is essential for normal growth and muscle tone of the heart, stomach and intestines. Perhaps its most significant function is the maintenance of a healthy nervous system.

Tests at Mayo Clinic¹ have shown that thiamine deficiency is marked by personality changes. Volunteers given a diet containing the amount of B1 consumed by the general public supplemented by iron, calcium, phosphorus, cod liver oil, Vitamins A and D became irritable, quarrelsome, uncooperative, inefficient, forgetful, mentally sluggish and depressed. They all developed insomnia, constipation, noise intolerance, feet and hands numbness, low blood

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pressure, anemia, low thyroid, calf pains, heart palpitation, neuritis, loss of hydrochloric acid (none at all in 25%). When they were given B1, within two to four hours all became cheerful, fatigue left them, mental alertness, stamina and enterprise returned. The rest of the symptoms disappeared after twelve to twenty days.

Continued B1 deficiency affects the cardiovascular system, the digestive system, as well as the functioning of the entire nervous system. The body does not store B1 in large quantities, therefore, its store can be easily depleted by such stresses as diarrhea, fever, surgery, smoking and drinking alcohol. Thiamine has been effective in the treatment of disorders of the nervous system, such as paranoia, manic depression, confusion, psychosis and neurosis. It has been used successfully in the treatment of drug users, alcoholics, acute poly neuritis and acute Beri-Beri.

For all its importance, an adequate, accurate guide for dosage does not exist. Of course, natural sources for B1 are available such as yeast, whole grains, nuts, kidney, pork, heart, soy beans and sprouts. But I was frustrated in my pursuit of correct therapeutic dosages. Hence, my search for a Vitamin B1 point on the body that would indicate deficiency and monitor dosage.

DEVELOPMENT OF TEST: So much information in articles exists that is related to the function of brain and memory in relation to B1 that I started using it along with RNA. Many times it alone negated the RNA point at the glabella. Having no further guide except clinical symptoms, I started trying other points and finally chose the RNA point and the 3 Complex point which is located

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on the tongue. Vitamin B1 seemed to be the only substance which would reverse the positive TL to both areas simultaneously. Some 100 patients were examined clinically in the last year for these two points and over 95% showed a positive test. (See chart below)

THE TEST: The test is conducted in the following manner: Touch any two fingers to tongue and RNA point simultaneously and test for muscle strength. A previously strong muscle will weaken if B1 is deficient in patient. Dosage can be determined by placing B1 on tongue and again touching RNA point and the point on the tongue where the B1 has been placed. Dosage is worked up to produce maximum strength and patient is kept at that level. Subsequent monitoring can be made to adjust level.

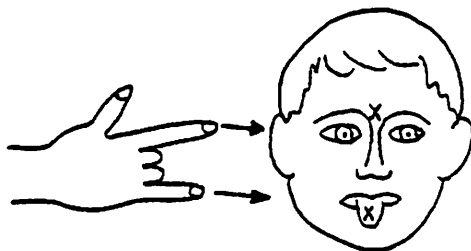


CHART:

	TEST			FIX		
	RNA	B-COM	TOGETHER	RNA	B-COM	B1
Over 100 Patients	neg	neg	pos	neg	neg	strong

FOOTNOTE:

¹Ernest Ayre and W.A. Gould: Science, April 12, 1972.

SPECIFIC POINTS FOR VITAMIN B1 DEFICIENCY

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National Research Council, 1948.J. Rodale: Encyclopedia For Healthful Living, 1970.Carlton Fredericks: Breast Cancer - Nutritional Approach.Kleiner: Response of Peripheral and Central Pathology to Vitamin B Metabolism,
1971.Victor M. Adams and Collins: The Wernicke Korsakoff Syndrome.R.D. Williams and W.L. Mason: Induced Thiamine Deficiency in Man,
Archives of Internal Medicine, 1942.J.L.O. Bock: U.S. Armed Forces Medical Journal, March, 1953

THE SPHENOID - COCCYX RELATIONSHIP

By Dr. Elmer J. Cousineau, D.C.

ABSTRACT:

To explore the relationship of the coccyx as the Lovett vertebra of the sphenoid.

INTRODUCTION:

The relationship of the sacrum to the occiput has long been advocated by Dr. Bertrand DeJarnette, D.C. in his technic known as "Sacro-Occipital Technic" (1). The relationship of the cervical segments to their lumbar counterparts has been advocated by Dr. George Goodheart, Jr, D.C. who called them the "LOVETT" vertebrae of each other (2). The atlas, or C-1 segment related to Lumbar Five and the Axis, or C-2, being related to Lumbar Four, and so forth, until Thoracic Five and Six are related to each other. The coccyx is listed as the "Lovett" vertebra of the sphenoid by Dr. David S. Walther, D.C. in his chart of the Lovett vertebrae on page 24 of his workbook "Applied Kinesiology, the Advanced Approach to Chiropractic." (3)

PROCEDURE:

In applying this procedure in the office the patient therapy localizes the coccyx with either hand. If positive, the operator challenges for right or left subluxation. If one is present, the patient then therapy localizes the sphenoid in three places: on each eyeball, on the sphenoid portion that is just posterior to the eye orbit on the skull, and at the TMJ

THE SPHENOID - COCCYX RELATIONSHIP (Continued)

just posterior to the upper maxilla, where the pterygoid process is evident. These may localize as positive all on either the left or the right side of the skull, although the coccyx may localize only from the left side.

The coccyx is then adjusted by slight recoil for the direction of subluxation by adjusting into the direction of subluxation. On therapy localizing post adjustment, at the sphenoid in all of the three locations, all will be negative. If one wishes to use "respiration assist" in place of recoil, pressure is applied to the coccyx to further subluxate it, on the phase of respiration that removes the challenge. This method works equally well, but takes a few moments longer.

In clinical practice in our office, this has been a most advantageous procedure, and experience has shown no recurrence of the subluxation for some time, if at all. (4)

FOOTNOTES:

- (1) Dejarnette, Dr. Major Bertrand, Sacro Occipital Technic, Fiftieth Anniversary Edition. Privately published, Nebraska City, 1975.
- (2) Walther, David S., Applied Kinesiology; the Advanced Approach
- (3) to Chiropractic, Systems D.C., Pueblo, Colo. 1976, page 24.
- (4) Cousineau, Elmer J., Clinical Records, 1979.
312 East Pioneer Avenue, Puyallup, Washington, 98371

" IS 'LEFT BRAIN ACTIVITY' CAUSED BY AN EXTREMITY LESION ? "

by Dr. Elmer J. Cousineau, D.C.

ABSTRACT:

To reveal the discovery that the adjustment of an elbow (radial-ulnar) subluxation will seem to correct the evidence presented by 'left-brain activity'.

INTRODUCTION:

The phenomena of "left-brain activity" as evidenced by muscle weakness on testing a previously strong indicator muscle (psm) while the patient attempts to add simple arithmetic sums, was explained by Dr. George Goodheart, Jr at the summer meeting in 1979 at Dearborn of the I.C.A.K.. The ability to maintain strength in the p.s.m. while muscle testing during the patient's "humming" of some simple tune, such as "Happy Birthday" was supposed evidence of "right-brain" activity.(1)

During testing by this author of left lower trapezius muscle weakness as compared to right lower trapezius, it was found that when left brain activity was present, the right lower trapezius muscle would test weak while the left would test strong. After correction from left-brain to right-brain activity, it was found that the left lower trapezius would now be weak instead of the right lower trapezius.

Cousineau - Left Brain Activity vs Extremity Lesion (Continued)

Coincidentally while testing for pronation subluxations (tennis elbow) and supination subluxations (golfer's elbow) of the forearm, it was discovered by this author that adjustment of the elbow subluxation by methods indicated in the current text by David S. Walther entitled "Applied Kinesiology, The Advanced Approach in Chiropractic (2) would automatically clear left-brain to right-brain as evidenced by the 'counting' method of testing.

PROCEDURE:

With patient seated or supine the patient is asked to add simple sums while testing a p.s.m.: weakness indicates left brain activity. The patient is then asked to hold his forearm at right angles to the upper arm with his elbow against his side. It is best to have both arms in this position. The patient then rotates the one hand in pronation to its limit, while the p.s.m. is tested. Then it is retested with the hand in supination to its limit. Repeat with the other elbow. The usual weakness is pronation of the right forearm, but on the initial testing of a 'new' patient, it may be accompanied by pronation and only seldom supination of the left arm.

When each elbow subluxation is corrected by the usual method in Walther's manual, the left-brain activity tests clear, without muscle weakness on the patient adding simple sums.

Cousineau - Left Brain Activity vs Extremity Lesion (Contd.)

On 'clearing' the extremity lesions, it was further discovered that the previously tested weak right lower trapezius muscle was now strong, and the weakness had 'switched' to the left lower trapezius.

Supportive techniques may be used to insure the stability of the extremity adjustments, such as the Golgi Tendon and the Spindle Cell Techniques on the muscles of the forearms. These are found in the Walther Manual.

One such technique developed during study sessions by the A.K. Study Group of District 1-S of the Washington Chiropractors Association in 1974 involved the lower cervicals. They were found to sublunate on the same side as the pronation or supination. Pronation involved the sixth cervical while supination involved the seventh cervical. Removal of these sublunations prevented recurrence of the elbow sublunations.

FOOTNOTES:

- (1) Goodheart, George J. Jr., Research Address, 1979 Annual Meeting, Dearborn, Michigan.
- (2) Walther, David S., Applied Kinesiology, The Advanced Approach in Chiropractic, privately published, Pueblo, Colorado, 1976.

MERIDIAN BALANCING BY USE OF THE NEUROPHONE

by

Sheldon C. Deal, D. C. , N. D.

ABSTRACT:

A series of experiments were done by muscle testing patients for meridian imbalances and then strengthening the muscle indicators, indicating balanced meridians, by running a time domain amplified signal through the patient's skin.

The skin is embryonically the source of all our special senses. Our skin contains more sensors, for heat, touch, pain, etc., than any other part of the human anatomy. The human ear evolves embryonically out of the convolutions of the skin of an embryo in the mother's uterus. Basically the skin is the oldest evolutionary nervous system sensor. Another way to look at this, is the special sense of touch has progressively extended over the entire body by way of the skin and evolutionarywise our other special senses should follow suit and extend over our entire body in time. The skin then, since it is the precursor of the ears, should also be capable of hearing or put it another way, it should be able to transmit the sense of hearing to the brain by a means other than the 8th cranial nerve.

The skin is piezo-electric and opto-electric, that is, when the skin is stimulated by an electric field or by a photon field. If it is mechanically stimulated, it will generate its own electric field. In Russia, blind people have been trained to "see" with their fingertips¹ and in Czechoslovakia, deaf people have been trained to "hear" with their fingertips.²

For the purpose of our experiment we used a neurophone, a device developed by Dr. Pat Flanagan, author of the book, "Pyramid Power". The device uses hyperspatial nested modulation technology. Briefly the device takes a complex

signal such as the sound of an orchestra and electrically processes it. First the signal is passed into a section which clips everything into a series of square waves, remarkably analogous to the sort of "clipped waves" Lisitsyn confirms are the information carriers of the human brain waves.³ Next the square waves are differentiated, yielding a series of sharp spikes. These spikes are again differentiated, and since these are finite spikes with real non-zero rise times and decay times rather than theoretical constructs, a series of noisy spikes results from the second differentiator section. From here the noisy spikes are introduced to special contact electrodes which are placed on the skin. The electrodes are fabricated of zirconium titanate imbedded in acrylic plastic tiles to provide a maximum impedance match to the skin itself.

In experiments done at Tufts University near Boston by Dr. Dwight Batteau in man-dolphin communications and assisted by Dr. Flanagan⁴, it was established that the nervous system uses time ratios as major sources of intelligent information. It was found that speech intelligibility was contained in time dominant ratios in the speech waveform. Speech quality was found to be contained in dominant frequency ratios. So the nervous system is designed to recognize two distinct parameters: the time domain and the frequency domain.

Based partially upon work done at Tufts University,⁵ it is known that the human voice does not depend upon frequencies. People who have had their larynx removed can use an "artificial larynx", a buzz generator held against the side of the throat. Word information is formed by the action of the jaw, the tongue, the teeth, the glottis and the nasal cavities. The human nose and mouth form a highly variable time delay generator. Thus, the basic audio information our brains evolved to decipher, the human voice, is dependent not upon frequency (you understand a whisper, a singing tone or a shouting rasp) but upon the time rate of change nature of sound caused by time delays imposed by the mouth and nasal passages.

The neurophone makes use of these research results by suppressing the frequency domain and amplifying the time domain of the incoming signal. This is one reason why the neurophone sounds so scratchy when one first begins to listen to it. The electronic circuitry of the neurophone presents audio information to the skin in the way the skin originally evolved to receive and decode the information eons ago. Thus the neurophone directly inputs information into the brain and nervous system, and even the mind, bypassing all the normal sensory systems that lie between the mind/brain loop and the outside environment.⁶

Since all of the acupuncture meridians are present on the surface of the skin, we found some very interesting affects when the skin was activated by the neurophone. All of the subjects of the experiment were muscle tested for one major muscle for each of the twelve meridians bilaterally. The meridians were recorded as under active for muscles weak in the clear and over active for muscles that became weak only by stimulation of the alarm point for its respective meridian. The subjects were then connected to the neurophone by placing the electrodes on the skin of the forehead just lateral and superior to the eyes. K-Y jelly was used to enhance the contact between the skin and the electrodes. A tape recording of pink noise was then played through the neurophone for a period of two minutes and then the muscles were retested after removal of the electrodes. The results are recorded on Table I, page 4.

CONCLUSION:

Table I represents the totals of 10 different patients who went through the experiment. Out of the 240 meridians tested, 85.8% of the unbalanced ones found, were corrected. The neurophone appears to have a beneficial effect on the body. On subsequent visits the meridians were remaining in balance two weeks later. Some of the many comments from the patients included: cessation of seizures,

TABLE I

PATIENT: Composite of 10 Patients

MERIDIAN	MUSCLE		BEFORE NEUROPHONE:			AFTER NEUROPHONE:		
			UNDER	OVER	NORMAL	UNDER	OVER	NORMAL
Heart	Subscapularis	L.			10			10
		R.	4		6			10
Small Intestine	Quadriceps	L.			10			10
		R.	1		9			10
Bladder	Peroneus	L.			10			10
		R.			10			10
Kidney	Psoas	L.	1		9	1		9
		R.	2		8	1		9
Pericardium	Gluteus Max.	L.	5	2	3	1		9
		R.			10			10
Triple Warmer	Teres Minor	L.			10			10
		R.			10			10
Gall Bladder	Popliteus	L.			10			10
		R.			10			10
Liver	PMS	L.		1	9			10
		R.			10			10
Lung	Deltoid	L.			10			10
		R.			10			10
Large Intestine	Fascia Lata	L.			10			10
		R.	2	3	5			10
Stomach	PMC	L.			10			10
		R.		1	9		1	9
Spleen	Lat	L.	2	2	6			10
		R.		2	8			10
TOTALS			17	11	212	3	1	236

improved sleep, total relaxation, improved respiration, better concentration and cessation of pain.

ADDITIONAL RESEARCH:

To be certain the neurophone was not operating by bone conduction, a simple experiment was done, known as the Batteau test in honor of the hearing researcher the late Dr. Dwight Batteau who developed the test during the neurophone evaluation at Tufts University.

Two separate channels of audio information were used. One channel goes through a set of ordinary headphones, the other goes through the neurophone. One specific frequency is played through the headphone channel. Another frequency is slightly different and is played through the neurophone circuitry to the transducer disks. If the neurophone was producing hearing by bone conduction, the two slightly different frequencies would "mix" in the bone structures of the inner ear, producing a discernible "beat frequency" which is the difference between the two. With the neurophone, this "beat frequency" is heard only at very high volume levels in both channels, levels at which the neurophone is probably producing bone conduction by the strong vibration of the skin under each transducer disk. However, the beat frequency should theoretically be heard at all volume levels; it is not heard at normal neurophonic listening levels.

LOOKING AHEAD:

Although the present experiment was a relatively simple one, the implications of future possibilities are tremendous. The following ideas may well serve as topics of future research papers and I invite all the members of I. C. A. K. to pursue them, either on their own or in conjunction with me. Some of the possibilities for which there is already some evidence are:

1. Increase in telepathic awareness.
2. A brain/mind link between two or more people.

Thomas E. Bearden has developed a mathematical formula that indicates that the combined mind power of a group of people will multiply exponentially if these people are linked in a unitary consciousness.⁷

3. Subliminal learning may be accomplished by the subject material being played through the neurophone at a low volume level. No conscious effort is made to learn the material. This could even be accomplished while the student is asleep.

4. Conscious learning may be accomplished by simultaneously listening to tape recorded data by means of neurophone and headphones. In this way the learning centers of the brain are being accessed by at least two separate channels.
5. Positive subliminal programs to alter undesirable habits: i.e., weight control, smoking control and creation of positive mental attitude.
6. Control the aging process by means of positive cellular programming via the neurophone.
7. Totally deaf people being able to hear recorded audio.

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THERAPY LOCALIZATION AS AN INDICATOR FOR A LUMBAR ADJUSTMENT

by

Gerald Deutsch, D.C.

ABSTRACT: This short article indicates the factors that can change with different types of therapy-localization.

Since the development of "Therapy-Localization", we have learned to depend on and accept our findings as a diagnostic criteria for various findings within the body. At this point in time, we all can look back and wonder how we ever could have practiced without therapy-localization; or for that matter, even the vertebral challenge mechanism so ingeniously discovered by Dr. George Goodheart{1}.

Many techniques utilize the familiar side role position. Under certain circumstances, such as residual disc problems and adhesions in the 5th lumbar sacral area, the side role position sometimes becomes a problem when executed because of the inherent weakness of the low back musculature. Therapy-localization, however, certainly does indicate the time for a specific adjustment and we have come to rely on these findings. A simple method of therapy localization for a subluxation is to TL the transverse, the spinus or the lamina area of a specific vertebra. When subluxated, this will show as a positive therapy-localization which, after we

find it, is then adjusted. The therapy-localization then becomes negative. In most instances with the adjustments we clear out all of the therapy-localization that we can find, plus the challenge factors that we may be finding at the same time. This is done very carefully, and we plan the care and correction for the patient in a very precise manner. When this is done, in many cases the patient still complains of stiffness and pain in the lumbar area. Many times these patients go along for many weeks with this negative therapy localization and negative challenge factors in the lumbar area, existing with the pain patterns.

I have found that there seems to be a challenge that exists with some of the patients in a total lumbar area. For instance, if a single vertebra were challenged either for a fix or for a subluxation, the findings may be negative. The next challenge is done. Try to cover the whole lumbar area with the edge of the hand and challenge the entire lumbar area. This in some cases, causes an immediate weakening of a tested muscle; such as the hamstring. By instituting this particular procedure, we simply are stressing the lumbar area indicating the possibility of lumbar stress in that specific part of the spine, or any part of the spine.

Simply therapy-localizing over any of these areas did not elicit a positive therapy-localization over any of these areas. Why would they stress with the weight of the palmar surface of the hand as long as we were covering more than one or two vertebra? The problem remained obscure for the

moment until I realized that our therapy-localization was wrong. Therapy-localization of 2 hands didn't seem to work. Finally, I realized as we were working with this situation that we would just simply have the patient spread the fingers of his hand to cover as much of the lumbar spine with his fingertips. A positive therapy-localization would then ensue. The correction of these factors were simple after that. Thrusting longitudinally along the lumbar spine so that all of the lumbar vertebra could be adjusted unilaterally, seemed to take care of this therapy-localization in most cases. If this particular method of correcting the therapy-localization failed, we then had the patient lie on the side with the positive therapy-localization side upwards. I did the familiar lumbar rotation procedure, adjusting as many vertebrae as possible. This would get rid of this particular type of therapy-localization. Care must be taken if there are any other factors that would be detrimental to the physiology of the specific area. We must assume that there are not any lumbar disc problems where rotation might be harmful.

I have found this technique to be helpful in many cases and I hope that you may find some use for it with some of yours.

Gerald Deutsch, D.C.

October 25, 1979

THERAPY LOCALIZATION INDICATOR

FOR AN ANTERIOR PELVIC ROTATION

by

Gerald Deutsch, D. C.

ABSTRACT: Further research indicators for problems that may be solved using therapy-localization {TL}. A way to determine the TL for an anterior rotated ilium.

Through the years, I've heard of references of an anterior rotated ilium, but really no indicator as to how to find it or what symptomatology we could look for as an indicator to correct this particular problem. In the past I heard Dr. Goodheart speak about this anterior rotated ilium, and he stated that sitting and getting up from a sitting position would be an indicator for this particular problem. Low back disorders and pelvic complaints were some of the factors I had to research in order to find a TL for this particular problem. This and other findings that many of us found through the years certainly indicate the need for more research into what TL shows and can show in relation to body disorders and body distortion.

The problem with many of these factors is that we don't have a criteria to start with. All we know is that there is certain symptomatology that is present and we know that certain corrections must take place in order for the patient to become symptom free. The next problem is allowing our

minds to escape from the thought of what we expect, rather than to explore different possibilities of how TL can be employed.

In all our procedures we eventually employ some of the more traditional chiropractic adjustments to place the patient in a position to allow nature to do its job of healing. Some of the familiar adjustments are the side position lumbar adjustments. The side position ilium adjustment which might take care of an anterior ischium, posterior ischium, or the posterior rotation of the ilium as a unit. All these are beneficial when needed, but unfortunately, many practitioners have gotten into the habit of the million-dollar roll procedure in order to execute an adjustment to get the patient out of the office within a relatively short amount of time. Though these practitioners utilize no specific type of spinal movement in order to execute their particular type of healing. When I say "their", I am referring to the particular practitioner. I am not referring to the kinesiologist or some of the practitioners that are using the indicator methods of adjusting, utilizing it to the ultimate goal of healing the patient. On a specific basis I saw Dr. Goodheart giving a reverse "side roll" position through the years. This, I assumed, was for an anterior rotation of the ilium. Once again, there was no indicator for this move except one's own clinical experience. Since this is not a most common problem, one has to search for this particular type of distortion.

In searching for this particular distortion, I had to set up a criteria of symptomatology for this problem. The symptomatology was pain around the ilium, anterior portion of the ilium, posterior lateral portion, pain near the piriformis, groin pain seemingly similar to a category 2 but not a category 2. The patient complains of pain when sitting and when just starting to arise from the chair, among other minor complaints. Other varied problems may be involved with some of the other distortions of the low back that we tend to deal with. Once we found the criteria and symptomatology, we were then able to look for a specific distortion for this type problem. We based the correction relating the complaints to this anterior to posterior iliac thrust. The finding, of course, was based on our clinical experience. Once I found a specific candidate for this particular distortion, I tried a few different methods of TL. After a few hundred tries looking for this particular problem, we found one specific TL that seemed to disappear with the anterior to posterior iliac thrust.

The procedure is rather simple. For instance, if we suspect the right iliac anteriority, we place the right hand on the anterior superior spine and the back of left hand on the sacroiliac joint. You then test an intact muscle, such as the hamstring. If the hamstring weakens, you may assume that you have an anterior iliac rotation. The correction is to lie the patient on the left side, assuming we're still working with the patient with the anterior ilium on the

right side. The doctor stands behind the patient, the superior leg, which is the right side in this case, remains straight. The lower leg is flexed {left leg in this case.} The doctor assumes the position of a "side roll" and does a reverse side roll thrust. The right shoulder in this case would be rotated anteriorly. The heel of the doctor's right hand would be placed just below the anterior superior spine, and a thrust is made from anterior to posterior. No articular sound is usually present, although it may occur at times. The patient is then placed in the prone position. TL once again, the area of involvement. Retest an intact muscle. If the muscle has become strong and intact, the correction has been made.

CONCLUSION: I feel that this is the correction of an anterior rotation of the iliac spine, and the therapy-localization indicator indicates the anterior posterior factors.

Gerald Deutsch, D.C.

East Northport, NY

February 1, 1980

ALLERGIES-METABOLIC TYPES AND TRACE MINERAL RATIOS

by

Fred Dieterle, D.C.

ABSTRACT:

Kinesiological procedures are useful in screening and treating allergies but results are either dramatic or non-existent. A method of identifying metabolic types of fast, slow and mixed oxidizers as well as attention to mineral ratios and their effects on the endocrine system, provides amazing therapeutic results. Manipulation of these ratios cannot only change or alter metabolic types, but also profoundly alter personalities of individuals.

INTRODUCTION

We have been working with trace minerals analysis for three years with mixed results. It was only after my acquaintance with Dr. Paul Eck and Dr. David Watts of Phoenix that we were able to have a truly functional approach and knowledge of the utilization of this procedure. It was my young son, Christian's, hair analysis that first drew my attention to Dr. Eck's profound knowledge in this area. He is credited by some as being the pioneer in hair analysis, founder originally of Nutri Dyn Labs, as some of you may well know. Currently, he is President and owner of Analytical Research Labs and Ortho Molecular Labs in Phoenix. Christian was definitely a fast oxidizer which made him particularly bright and energetic, he started manifesting some tendencies of allergies and slight hyper activity. We found, of course, that the zinc levels, as well as the calcium and magnesium were affecting his behavior. But the orthodox approach of simply giving what is missing in a cookbook like fashion failed miserably in other patients in the early days, and we did not wish to apply the same method to him. After consultation with Dr. Eck we were introduced to these concepts of metabolic types and after making the application of these in Christian's case as well as many other patients since then we can vouch for the results. Dr. Eck states that his research is from approximately 68,000 hair analysis world wide. It would be impossible to list here in this paper all the references

that he has ever used in a study as exhaustive and extensive as this. So I will simply state that Dr. Paul Eck is a bio-chemist, and that this is a compilation of a small part of his research during the course of seven years as well as my clinical findings in collaboration with his work.

FINDINGS

Why do some peoples allergies get better in the summer, worse in the winter, and vice versa? This rests on the metabolic type.

Fast oxidizers (FO) comprise approximately 20% of the population, their allergies flare in the summer and subside in the winter. Their metabolism is one of a "fiery furnace" as influenced by hyper adrenal and hyper thyroid function. The cold of winter can only help to decrease their metabolism as they were running "full tilt" anyhow. Conversely, slow oxidizers (SO) comprise 25% and are worse in winter as they need to generate increasing amounts of energy to meet their needs and this leads to further exhaustion of adrenals and accentuates insufficiency of the thyroid. The mixed oxidizer (MO) comprises 55% and is a mixed bag and will be discussed in a further paper. Their allergies are generally steadier, constant with less relief as they are not adjusting well. In a fast oxidizer there is homeostasis and the adrenal and thyroid are functioning at a high level of activity and mutually stimulated endocrinologically. Synergistically, the thyroid stimulates corticosteroid and adrenalin production.

Functional hyperthyroidism = depressed Ca + Mg

Functional hyper adrenalism = increased Na + K

See sample A

Slow oxidizers are the opposite.

Hypothyroid = increased Ca + Mg

hypoadrenal = decreased Na + K

See sample B

Two significant patterns emerge and in themselves are indicative of allergies.

- 1). low Ca & Mg
- 2). low Na to K ration (regardless of whether they are both below or above normal)

In a mixed oxidizer low Ca + Mg as well as Na + K is a double indicator of allergies and if Na +K are inverted as previously mentioned we have a triple allergy condition. Storage of heavy metals as well as their effect when they are being eliminated affects liver function and precipitates allergies.

TREATMENT

We find that levels of minerals above the normal levels are bio-unavailable and therefore unusable or non ionized or stored.

TREATMENT

High Calcium generally depresses levels of other trace minerals and can be brought down by giving magnesium which solubilizes calcium. Calcium is a "releaser" and releases other minerals. For instance, histamines are bound in the tissue by zinc and released by calcium. Since hypoglycemia and allergies are part of the same pattern the following excerpts indicate data pertinent to both. Look at the graph on each sample and apply the excerpts to each following both discussions, the recommended supplement program is illustrated for each of these with a re-check in 2-4 months and appropriate adjustments in supplementation assure best results.

New Horizons in Preventative Medicine

ANALYTICAL RESEARCH LABS, INC.

2338 W. Royal Palm Road Suite F Phoenix, Arizona 85021

NAME: DIETERLE, C. DR: DIETERLE, P.

DIAGNOSIS:

Sample I

NUTRITIONAL MINERALS

	11.7	2.0	82.4	76.8	3.9	1.1	.12	2.0	.20	.04	11.7
130.0	33.0	70.0	28.0	12.0	18.0	1.6	38.0	0.30	0.70	34.0	
120.0	30.0	65.0	26.0	11.0	16.0	1.5	36.0	0.28	0.65	32.0	
110.0	27.0	60.0	24.0	10.0	14.0	1.4	34.0	0.26	0.60	30.0	
100.0	24.0	55.0	22.0	9.0	12.0	1.3	32.0	0.24	0.55	28.0	
90.0	21.0	50.0	20.0	8.0	10.0	1.2	30.0	0.22	0.50	26.0	
80.0	18.0	45.0	18.0	7.0	8.0	1.0	28.0	0.20	0.45	24.0	
70.0	15.0	40.0	16.0	6.0	6.0	0.9	26.0	0.18	0.40	22.0	
60.0	12.0	35.0	14.0	5.0	4.0	0.8	24.0	0.16	0.35	20.0	
50.0	9.0	30.0	12.0	4.0	3.0	0.6	22.0	0.14	0.30	18.0	
40.0	6.0	25.0	10.0	3.5	2.5	0.25	20.0	0.12	0.25	16.0	
30.0	5.0	20.0	8.0	2.5	2.0	0.1	16.0	0.08	0.20	14.0	
20.0	4.0	15.0	6.0	2.0	1.5	0.08	12.0	0.06	0.15	12.0	
10.0	3.0	10.0	4.0	1.5	1.0	0.04	8.0	0.04	0.10	6.0	
5.0	2.0	5.0	2.0	1.0	0.5	0.02	4.0	0.02	0.05	3.0	
0.02	1.0	0.0	0.0	0.5	0.0	0.00	0.0	0.00	0.00	0.0	
	Ca	Mg	Na	K	Fe	Cu	Mn	Zn	Cr	Se	F

TOXIC METALS

	.68	.05	.03	
5.5	2.9	1.4	.85	
5.0	1.8	1.2	.80	
4.5	1.6	1.0	.75	
4.0	1.4	0.8	.70	
3.5	1.2	0.6	.65	
3.0	1.0	0.4	.60	
2.5	0.8	0.2	.55	
2.0	0.6	0.1	.50	
1.5	0.4	.08	.45	
1.0	0.2	.06	.40	
0.5	0.1	.02	.35	
	Pb	Hg	Cd	As

ADDITIONAL MINERALS

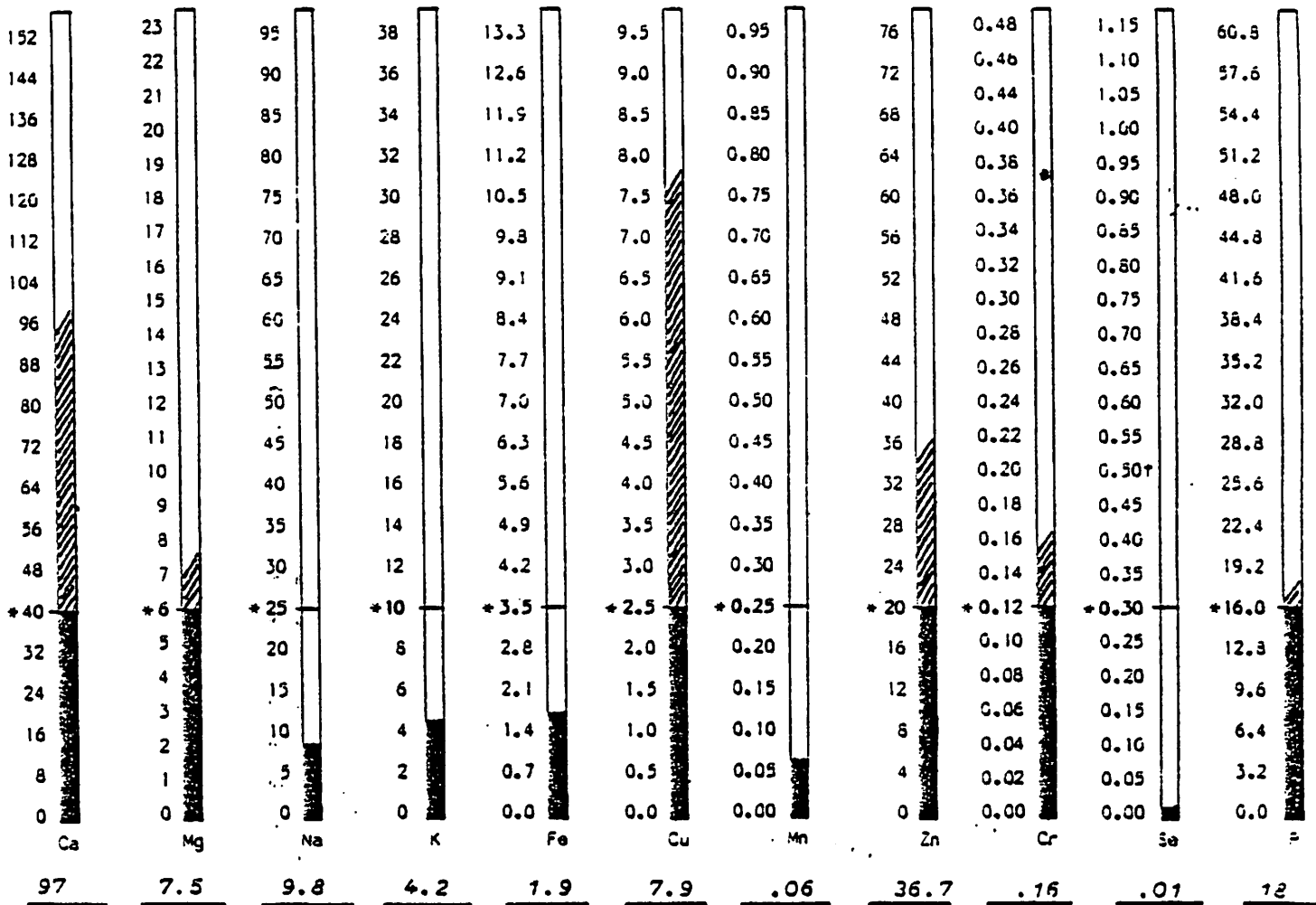
	.08	2.0	.213	
0.20		1.1	.35	
0.18		1.0	.30	
0.16		0.9	.25	
0.14		0.8	.20	
0.12		0.7	.15	
0.10		0.6	.11	
0.08		0.5	.050	
0.06		0.4	.045	
0.04		0.3	.040	
0.02		0.2	.035	
0.00		0.1	.030	
	Ni	Co	Al	Mo

PATIENT: B. W.

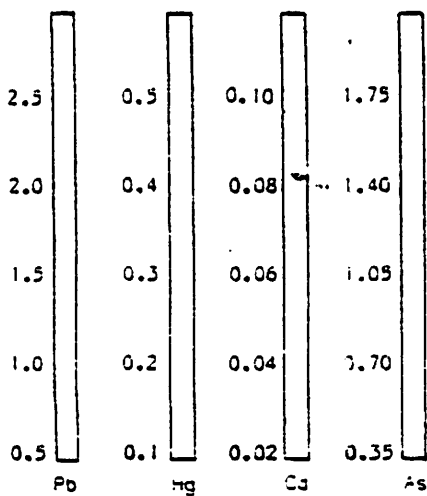
DOCTOR: A. E.

DIAGNOSIS: ALLERGIES

NUTRITIONAL MINERALS



TOXIC METALS



OXIDATION TYPE

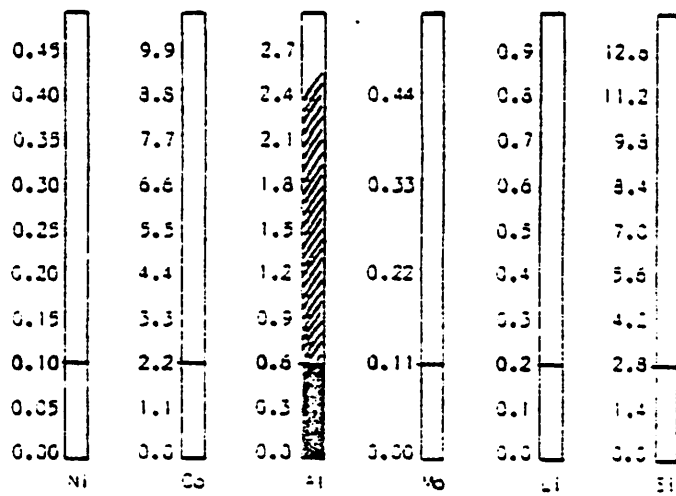
SLOW OXIDIZER

FAST OXIDIZER

MIXED OXIDIZER

SUB-OXIDIZER

ADDITIONAL MINERALS



The successful treatment of allergies is dependent upon the ability to determine the two basic biochemical profiles in allergy patients.

In addition to the two basic allergy types, there are six sub-types which act as "modifiers".

Using "trace mineral analysis" as a diagnostic tool, the following types and Sub-types was determined.

BIOCHEMICAL PROFILE TYPE #1 "Fast Oxidizer"

BIOCHEMICAL PROFILE TYPE #2 "Slow Oxidizer" SUBTYPES are those types which act as "modifiers" of the two basic types. These "modifiers" of the basic types, "FAST" and "SLOW" OXIDIZERS are the heavy toxic metals. SUBTYPES

#1 LEAD

#2 CADMIUM

#3 COPPER

#4 IRON

#5 ZINC

#6 Mercury

ALLERGY: "FAST OXIDIZER TYPE" CASE #1

The "metabolic pattern" of this case is indicative of a speeded up metabolic rate: FAST OXIDIZER TYPE

ENDOCRINE ACTIVITY AND "FAST OXIDATION"

The endocrine glands associated or responsible for an increased metabolic rate is the thyroid (hyper) & adrenal glands. (hyper)

One important result of an increased metabolic rate is the loss of certain important macro & micro nutrients.

HYPOGLYCEMIA

Hypoglycemia is a common manifestation of an increased metabolic rate, because of a depleted "glycogen" reserve in the liver. When an emergency arises, there is not enough energy available to cope this is the result of a depleted glycogen reserve or insufficient liver storage of glycogen.

STRESSACUTE

Individuals with an "increased metabolic rate are almost in a constant state of "stress" & are extremely emotional, have a tendency to "conceal" their emotions, resulting in repression, e.g. anger which is repressed becomes "hostility".

CALCIUM AND HISTAMINETYPE ALLERGIES

Both physical and emotional stress result in a decreased absorption of calcium & an increased excretion of calcium, the net result being a moderate to severe calcium deficiency.

One manifestation of a calcium deficiency is allergies of the "histamine" type.

Other manifestations of a calcium deficiency which relate directly or indirectly to allergy states are (1) stress (2) increased cortisone secretion (3) increased aldosterone secretion (4) lowered resistance to infections (5) hyperthyroidism (6) hypoparathyroidism (7) inflammation (8) protein catabolism.

The above conditions are now discussed more fully.

ACUTE STRESS ASSOCIATED WITH LOW CALCIUM LEVEL

Low tissue calcium levels are frequently associated with stress. The secretion of adrenalcorticosteroid hormones cortisone and aldosterone are both increased under stressful conditions (physical or emotional or both). Aldosterone is a proinflammatory hormone and if cortisone (antiinflammatory hormone) secretion is insufficient, a permanent inflammation ensues, resulting in loss of calcium from tissue and bone reserves.

INCREASED CORTISONE SECRETION

Elevated potassium levels are indicative of increased glucocorticoid secretion. Excessive glucocorticoid secretion results in excessive calcium loss. Calcium is a physiological antagonist to the glucocorticoids.

INCREASED ALDOSTERONE SECRETION

Elevated sodium levels are indicative of increased aldosterone secretion. Excessive aldosterone secretion results in excessive calcium loss. When aldosterone levels are high, salt and water are retained in the body, often causing the breasts, hands, face and feet to swell, weight to increase 50 pounds, headaches to occur and resistance to allergies and infections decrease markedly. Magnesium is a physicalgical antagnist to aldosterone.

LOWERED RESISTANCE TO INFECTIONS

Infections are a common concomitant of allergies. Both low calcium & magnesium levels are associated with a lowered resistance to infections. A low tissue magnesium level is responsible for reduced thymus function resulting in an inhibition of the lymphocyte-cellular immunity system.

A magnesium deficiency results in the production of fewer antibodies (Journal of Nutrition, June 1975). Other studies have shown that the lymphocytes, which are the body's defense against foreign invaders, are inhibited when there is a deficiency of magnesium. (Lancet Sept. 7, 1974) (Dr. Alan D. Mease M. D.)

HYPERTHYROIDISM

A low tissue calcium level is frequently associated with an overactive thyroid gland. The metabolic rate is increased. Excessive secretion of thyroxine stimulates calcium excretion.

"In hyperthyroidism high excretions of calcium and phosphorous are found, and osteoporosis is described as the result of this disease. Although it has been suggested that the thyroid hormone has a direct action upon the calcium threshold of the kidney, albright (4) suggests that these effects are secondary to a negative nitrogen balance and insufficient bone matrix." Goodhart & Wohl pp 333

HYPOPARATHYROIDISM

A low tissue calcium level is frequently associated with a hypoactive parathyroid gland. The utilization of calcium depends on the normal function of the parathyroid hormone, parathormone.

A low magnesium level is responsible for an underactive parathyroid gland and its calcium retention hormone, parathormone.

INFLAMMATION

Inflammation is associated with every case of "histaminetype allergy."

Low calcium levels particularly when associated with a high sodium level is indicative of inflammation.. High sodium levels are indicative of acute stress and increased aldosterone secretion, both of which are conducive to calcium loss and an inflammatory process.

PROTEIN CATABOLISM

A protein deficiency is consistently found in fast oxidizer allergy states. A positive nitrogen balance state is impossible to maintain in allergy states associated with an increased metabolic state. "Hyperthyroidism is associated with a decreased efficiency of muscular contraction & decreased synthesis of protein & lipids. . ."

ALLERGIES ASSOCIATED WITH ELEVATED SODIUM AND POTASSIUM LEVELS

Another indicator of a "histamine type" allergy from a "tissue mineral analysis" viewpoint is an elevated sodium and potassium level.

An elevated sodium and potassium is also like a low calcium level indicative of an "acute" inflammation

An elevated sodium and potassium is indicative of "acute" stress.

INCREASED PROTEIN CATABOLISM ASSOCIATED WITH ELEVATED SODIUM LEVELS AND ARE EXAGERRATED BY A HIGH SALT INTAKE

". . . Large amounts (of salt) increase the quantity of protein catabolized and through overstimulating the digestive tract, may also interfere with the absorption and utilization of food. . ." Health Finder pp 720

ALLERGIES ASSOCIATED WITH LOW MAGNESIUM LEVELS

A low magnesium level (tissue mineral analysis) is associated with "histaminetype" allergies. Magnesium is required in optimal amounts to initiate parathyroid activity and thusly facilitate calcium absorption. Also, magnesium is required to maintain calcium solubility.

LOW ZINC AND HISTAMINES

"Histamine is a biochemical which normally occurs in all soft tissues of the body. . . Histamine will chelate, or nab onto, trace elements, such as copper and zinc. . .Zinc is apparently necessary for the storage of histamine." Zinc & other MicroNutrients Pfeiffer

Low tissue zinc levels results in an inability to store histamine in the tissues resulting in excessive free histamine which initiates an allergic response.

Histaminetype allergies are frequent in the "FAST OXIDATION" type because of the notorious low zinc and calcium levels associated with the "FAST OXIDIZER" individual.

LOW ZINC LEVEL, FAST OXIDIZER AND ELEVATED HISTAMINE LEVELS

Fast oxidation is accompanied by high histamine levels. Zinc is beneficial in treating high histamine patients.

INFLUENCE OF TOXIC METALS IN "FAST OXIDATION" TYPE ELEVATED HISTAMINE ALLERGIES

The toxic metals lead, cadmium, copper, iron and zinc are allergyinducing and "histaminetype" allergies cannot be totally eliminated until the toxic metals are totally eliminated from body tissue storage.

We have previously noted that "histamine type" allergies are associated with (1) low calcium level (2) low magnesium level (3) elevated sodium level (4) elevated potassium level. The heavy toxic metals, lead, cadmium, copper and iron are fully capable of causing the above mineral distortions, responsible for allergic manifestations.

ROLE PLAYED BY LEAD IN ELEVATED HISTAMINE ALLERGIES

Accumulation of lead in the tissues of the body, principally bone, results in a loss of calcium from bone reservoirs. Lead is readily absorbed when a calcium deficiency is present. Lead toxicity is in part, at the very least, a contributing factor to every metabolic dysfunction associated with a calcium deficiency.

ELEVATED LEAD AS A CAUSE OF A ZINC INDUCED "HISTAMINETYPE" ALLERGY

Elevated lead levels are frequently associated with low zinc levels inasmuch as lead displaces zinc in the body tissues and enzyme systems resulting in (1) hyperthyroidism (2) hypoglycemia (3) protein catabolism, all of which contribute to "histaminetype" allergies.

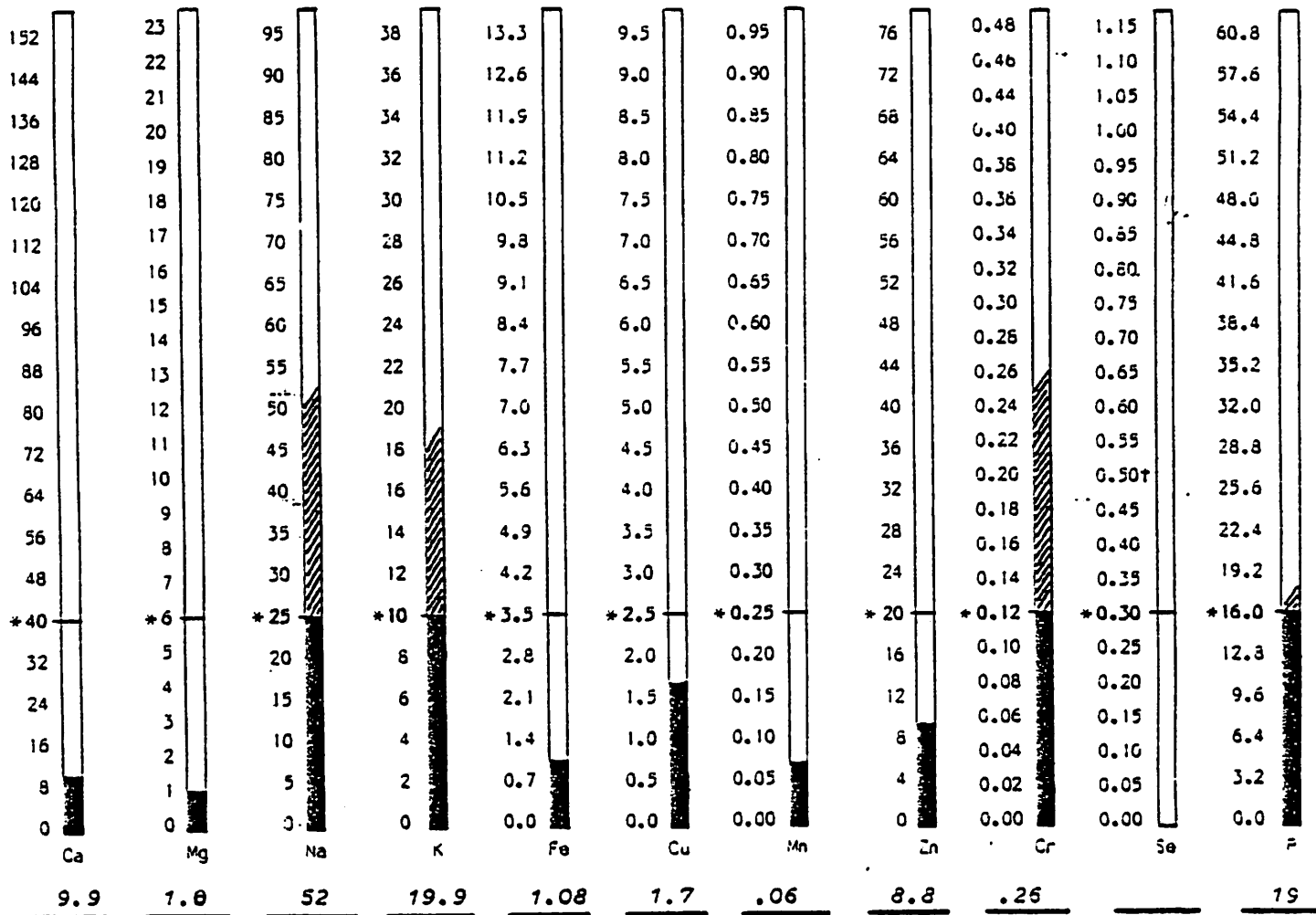
The displacement of zinc by lead results in protein catabolism. A deficiency of zinc results in inadequate protein synthesis. Zinc serves as a stabilizer in the RNA molecule and as such exerts an influence over protein synthesis.

ELEVATED LEAD AS A CAUSE OF A SODIUM INDUCED "HISTAMINETYPE" ALLERGY

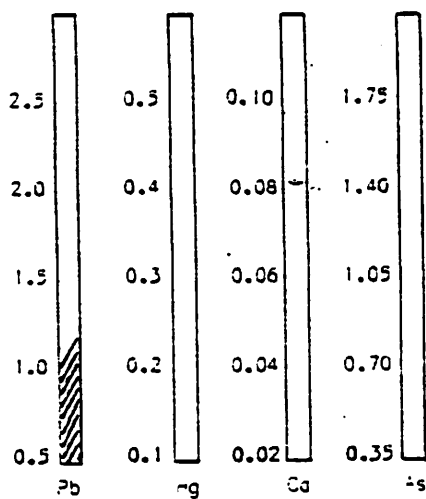
Elevated sodium values are frequently associated with elevated lead levels. Lead, it seems, increases aldosterone levels, which results in an increased retention of sodium, with a resultant inflammation process.

PATIENT: R. S. DOCTOR: R. W.
 DIAGNOSIS: ALLERGIES

NUTRITIONAL MINERALS



TOXIC METALS



OXIDATION TYPE

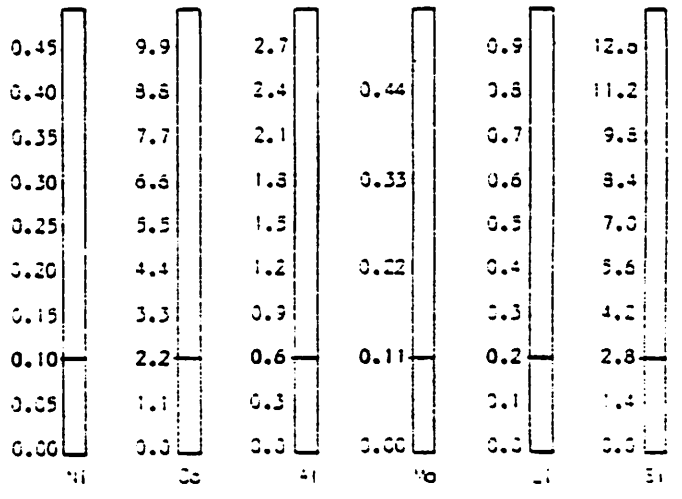
SLOW OXIDIZER

FAST OXIDIZER

MIXED OXIDIZER

SUB-OXIDIZER

ADDITIONAL MINERALS



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ALLERGY "SLOW OXIDIZER" TYPE CASE #2

The "metabolic pattern" of this case is indicative of a "low metabolic rate or "slow oxidizer".

ENDOCRINE ACTIVITY AND "SLOW OXIDATION"

The endocrine glands associated or responsible for a decreased metabolic rate is thyroid (hypo) and adrenal glands (hypo or insufficiency)

One important result of a decrease in metabolic rate is a low rate of absorption of some minerals and an elevated level (bioavailability) of others.

HYPOGLYCEMIA

Hypoglycemia is a common manifestation of a decrease rate of metabolism, because of an inability to convert glycogen to glucose in the liver. When an emergency arises, necessitating increased glucose, the insufficiency of both thyroid and adrenal hormones necessary for the conversion of glycogen to glucose results in hypoglycemia.

STRESS, CHRONIC

Individuals with a decreased metabolic rate are categorized as being in a stage of stress exhaustion, have little or no energy; emotions are dulled and desire to succeed is diminished. The individual is in a state of "giveup"

ALLERGY & GLANDULAR RELATIONSHIPS

Both chronic physical and emotional stress, with concurrent exhaustion of the thyroid and adrenal gland results in a failure to maintain calcium solubility and hence elevated tissue calcium level (representing a bio-unavailability actually a deficiency) and deposition of calcium into the tissues. Calcium deficiency symptoms are present despite the elevated calcium tissue level.

allergies as related to a slow metabolic rate or "SLOW OXIDATION" are primarily the result of an adrenal insufficiency, conditioned by "stress".

CHRONIC STRESS ASSOCIATED WITH LOW SODIUM AND POTASSIUM LEVELS

Low sodium and potassium levels are commonly associated with adrenal exhaustion and allergies. Large amounts of sodium are lost in the urine as a result of aldosterone (sodium) insufficiency.

". . .Almost immediate relief occurs if the blood sodium is replaced by taking 1/2 teaspoon each of ordinary salt and baking soda in a little water a procedure which can be repeated when allergic symptoms again become severe. Increasing the blood sodium frequently relieves an asthma attack provided some food containing sugar is taken simultaneously: orange juice; or milk or tea sweetened with honey. Such attacks occur when the blood sugar is low an added stress and the adrenals are too exhausted to form sugar by breaking down protein. ---Let's Get Well A-delle Davis

DECREASED ALDOSTERONE SECRETION

Tissue sodium level is low. Depressed sodium levels are frequently associated with the "exhaustion" stage of stress, which in turn results in decreased aldosterone secretion, with the result that sodium is lost from the body tissues and potassium is withdrawn from the cells. The blood pressure usually falls below normal & dehydration occurs.

GLUCOSE LEVELS SEVERELY AFFECTED BY A LOW SODIUM LEVEL

In order for glucose to cross the cell membrane, optimal amounts of potassium must be present. Low sodium, except in renal disorders, is usually accompanied by low potassium levels, thereby resulting in a failure of glucose to enter the cell, resulting in what could be termed "CELLULAR HYPOGLYCEMIA".

DECREASED CORTISONE SECRETION

Low potassium levels are indicative of decreased glucocorticoid secretion. A diminished potassium level results in an increased sensitivity to insulin and hence a lowered blood sugar level or hypoglycemia.

The body's ability to manufacture growth protein and repair damaged tissues is dependent on a good supply of nitrogen which is impossible to maintain in the face of potassium deficit.

SIGNS OF POTASSIUM DEPLETION

Low potassium levels are associated with an adrenal insufficiency and are characteristic of allergies associated with adrenal insufficiency. Inability to rise in A. M. due to fatigue and muscle weakness, abnormal muscle function, severe constipation, lowered uptake of oxygen by nerve cells, insomnia, absent reflexes, mental confusion, slow and irregular heartbeat, listlessness, soft flabby muscles, neuromuscular dysfunction and hypotension are all manifestations of decreased glucocorticoid secretion associated with adrenal insufficiency.

LOWERED PROTEIN DIGESTION ASSOCIATED WITH LOW SODIUM LEVELS

A protein deficiency is consistently found in "slow oxidation" states. A protein deficiency in the "slow oxidizer" results from both the hypothyroid and adrenal insufficiency state. Low sodium values, as found to co-exist with adrenal insufficiency, are associated with a reduced ability to digest protein. A low tissue sodium is therefore indicative of a protein deficiency.

INFLAMMATION

One major cause of chronic allergy is the inability of the body to produce an inflammatory response. A low sodium level which is indicative of a lowered aldosterone (low sodium) secretion, is accompanied by a reduced ability of the body to initiate and maintain an inflammation response. Resistance to "stressors" is diminished and chronic degenerative disease is the result.

HYPOTHYROIDISM

An elevated calcium level is frequently associated with a diminished thyroid function the metabolic rate is decreased. Decreased thyroxine secretion results in decreased ability of the body to eliminate calcium. In turn the excessive build-up of tissue calcium results in a diminished thyroxine secretion.

ADRENAL INSUFFICIENCY

Bio-availability (elevated calcium) of calcium becomes almost impossible when sodium levels are low. (adrenal insufficiency) As calcium levels rise, both thyroid and adrenal activity decrease. Calcium attenuates the effect of thyroxin and also suppresses glucocorticoid (potassium) levels.

Enhancement of both thyroid and adrenal glands through the use of appropriate mineral therapy and mineral balancing will result in the restoration of the hormonal activity of these glands.

ROLE PLAYED BY COPPER IN ALLERGIES

Accumulation of copper in the tissues is a frequently a precipitating cause of allergies, particularly those associated with "slow oxidation".

We have previously noted that both hypothyroidism and adrenal-cortical insufficiency are principal causative factors in allergies of the "slow oxidation" type.

Copper in excessive amounts attenuates or annihilates the effect of thyroxin.

Excessive tissue copper levels are indicative of adrenal insufficiency. A normal functioning adrenal gland prevents the accumulation of copper in the tissues.

CONCLUSION

The introduction of the advanced concepts of trace mineral analysis just discussed explain and enhance the nutritional case management of allergies. Kinesiology also greatly enhances this therapeutic approach making it more holistic.

SUPPLEMENT PROGRAM

Sample A

Fast Oxidizer

	B	L	D
glycopan	2	2	3
calcium	3	3	3
magnesium	1	0	1
manganese	0	1	0
thymadren	2	2	2
ortho A-C	1	1	1
E 200 IU	1	0	1
B6 200 mg	1	0	0
Enzaid	2	2	2

Sample B

Slow Oxidizer

	B	L	D
megapan	2	2	2
magnesium	1	1	1
manganese	0	0	1
copper	0	1	0
orthadren	2	1	2
C-1000	1	1	1
B-6	1	0	1
Hcl/pepsin	2	2	2

B-breakfast
L-lunch
D-dinner

GLYCOPAN

22 TABLETS SUPPLY:

		AMDR
Vitamin C	3200 Mg.	10666%
Niacinamide	3000 Mg.	30000%
Glutamic Acid Hcl	2000 Mg.	••
Choline (Bitartrate)	1800 Mg.	••
Pantothenic Acid (Calcium Pentothenate)	1500 Mg.	••
Vitamin E (d Alpha Tocopherol Acetate)	600 I.U.	••
Vitamin A (Fish liver oil)	10000 I.U.	250%
Vitamin D (Fish liver oil)	400 I.U.	100%
Vitamin B-1 (Thiamine Mononitrate)	50 Mg.	5000%
Vitamin B-2 (Riboflavin)	50 Mg.	4166%
Vitamin B-6 (Pyridoxine HCL)	50 Mg.	••
Vitamin B-12 (Cobalamin Conc.)	50 Mcg.	••
Folic Acid	.4 Mg.	••
PABA (Para-amino benzoic acid)	50 Mg.	••
Biotin	50 Mcg.	••
Lemon Bioflavonoids	100 Mg.	••
Calcium (dicalcium phosphate)	750 Mg.	100%
Phosphorus (dicalcium phosphate)	570 Mg.	76%
Magnesium (Oxide)	250 Mg.	••
Potassium (Chloride)	99 Mg.	••
Iron (ferrous fumarate)	10 Mg.	100%
Copper (Gluconate)	1 Mg.	••
Chromium (Oxide)	1 Mg.	••
Iodine (Kelp)	.224 Mg.	224%
Ribonucleic Acid	20 Mg.	••
Adrenal substance	388 Mg.	••

AMDR--Adult Minimum Daily Requirement
••--Adult Minimum Daily Requirement not established
••--None in human nutrition not established

MEGAPAN 118016

10 TABLETS CONTAINS:

		AMDR
VITAMIN A (Fish Liver Oil)	10,000 IU	250%
VITAMIN D (Fish Liver Oil)	400 IU	100%
VITAMIN C (Vitamin C)	2,000 Mg.	6,666%
VITAMIN C (d-alpha toc. acetate)	400 IU	••
VITAMIN B-1 (Thiamine HCL)	100 Mg.	10,000%
VITAMIN B-2 (Riboflavin)	100 Mg.	4,166%
VITAMIN B-6 (Pyridoxine HCL)	100 Mg.	••
VITAMIN B-12 (Cobalamin Conc.)	100 Mcg.	••
NIACINAMIDE	100 Mg.	1,000%
PANTOTHENIC ACID (d-Calc Panto)	100 Mg.	••
FOLIC ACID	0.4 Mg.	••
BIOTIN	100 Mcg.	••
CHOLINE (Bitartrate)	100 Mg.	••
INOSITOL	100 Mg.	••
PARA-AMINO BENZOIC ACID	100 Mg.	••
CALCIUM (Carbonate)	100 Mg.	••
CALCIUM (Amino acid chelate)	125 Mg.	40,67%
MAGNESIUM (Oxide)	110 Mg.	••
MAGNESIUM (Amino acid chelate)	60 Mg.	••
POTASSIUM (Amino acid chelate)	99 Mg.	••
PHOSPHORUS (Amino acid complex)	75 Mg.	10%
IRON (Amino acid chelate)	15 Mg.	150%
ZINC (Amino acid chelate)	5 Mg.	••
IODINE (Kelp)	.225 Mg.	225%
COPPER (Amino acid chelate)	1 Mg.	••
CHROMIUM (Amino acid chelate)	0.5 Mg.	••
MANGANESE (Amino acid chelate)	10 Mg.	••

IN A BASE OF: RAW PROCESS GLANDULAR EXTRACTS (250 Mg.) from Brain, Heart, Kidney, Spleen, Liver, Pancreas and Duodenum. PECTIN -- 100 Mg.; LECITHIN -- 100 Mg.; BIO-FLAVONOIDS -- 100 Mg.; RIBONUCLEIC ACID -- 10 Mg.

AMDR • Adult Minimum Daily Requirement
•• • Adult Minimum Daily Requirement not established
•• • None in human nutrition not established

T H E H Y O I D B O N E

By Daniel H. Duffy, D.C.

ABSTRACT: Pushing the hyoid bone left or right (rarely up-down or diagonally) appears to turn on the left or right brain respectively. The bone must be pushed with the ipsilateral hand to the opposite side. (e.g., right hand pushes hyoid to the left, from the right) Reaching across the body and pushing the contralateral side back towards the side of the pushing hand causes weakening of a previously intact muscle. Performing this maneuver elicits positive therapy localization when all other methods fail.

While treating a patient with an inability to flex the femur on the thigh I attempted to check the effect of pushing the hyoid bone to the side opposite the dysfunction. At the time of this maneuver the patient was straining in an attempt to raise the leg from the floor. At the moment the hyoid was pushed, the patient's leg flew into flexion with such force as to almost knock him off his feet. I.e., the right leg would not flex until the patient's hyoid bone was pushed to his left side from his right side with my right hand. It was later noted that if the patient reached across and pushed the right side of the hyoid to the left with the left hand, any previously intact muscle would weaken. This appears to be a consistent finding and is probably related to polarity as discovered originally by Goodheart. (1)*

Another patient was unable to dorsiflex and evert the left foot. Pushing up on the right side of the hyoid and down on the left side immediately enabled the patient to perform the maneuver with ease. This phenomenon was then checked against therapy localization of various areas, especially in patients suffering recidivism in symptomatology but failing to show positive therapy localization (PTL). It was found that pushing the hyoid to the left and right appeared to "turn on" the left and right brain and elicited PTL when no other mode of elicitation worked. It should be pointed out that split brain activity (humming and counting during therapy localization) may elicit PTL when this procedure fails.(2) Therefore to check PTL of the left side of the body, touch the area with the right hand and push the hyoid to the right with the left hand and test the intact muscle for weakening. This is the only way a single hand contact to the hyoid has effect up to this investigative point in time as far as PTL is concerned. In order to properly identify split brain activity it is thought that only one side of the body should be therapy localized at one time. When performed in this manner there is usually more consistency in left-right effects. I.e., left brain should show for right side and right brain for left side. Therapy localizing both sides at the same time may be asking too many questions at one time.

The possibility exists that the acupuncture points called "window to the sky" may be involved. We are reminded of Perolemans discovery of the effects of occipital adjustment on the meridians of acupuncture which I believe may have the effects based upon the location of these curiously named points. I would encourage further research into these points and their effects. (3)

We also need to keep in mind the effects of a subluxation on joint function. The first patient mentioned herein totally lacked flexion ability when first seen. Following correction of a posterior ilium on the side of involvement the patient then was able to raise the leg to the point where the toe was still in contact with the floor and heel was elevated. Correction of the subluxation of the sacroiliac returned some function to the limb. This serves to point out the fact that could be considered axiomatic that any muscle subserving a joint in subluxation will malfunction in one way or another. They may be seen in all stages from simple weakness to hyperactivity, depending upon the chronicity of the problem. Correction of the joint subluxation often "turns the muscle on" so to speak. If this correction had not been made prior to attempting the hyoid maneuver it is quite possible that no effect would have been observed. It is for this reason that the recommendation is strongly made for the doctor to make all structural corrections prior to the use of other techniques wherever possible. Function arises out of structure. The very structure of most things determine their functioning. Function can be seen as the expression of structure or manifestation of it. It is impossible for any dysfunction to occur without a structural component being involved whether on the molecular or macroscopic level.

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1. Monthly research tapes privately published by the author, G.J. Goodheart Jr., D.C., 534 Michigan Bldg. Detroit, Mich. 48226. Tel. no. 1-313-962-6484.
2. Ibid.
3. Peroleman, R., D.C., presented to the diplomates of the ICAK.

*hyoid technique available in the 1980 Research Manual of Applied Kinesiology by Goodheart.

C R A N I A L M A S K I N G
O F
T E M P E R O M A N D I B U L A R J O I N T
D Y S F U N C T I O N

By Daniel H. Duffy, D.C.

ABSTRACT: Positive therapy localization (PTL) of the temporomandibular joint (TMJ) during opening of the mouth has been found to reverse (to closing) following correction of the cranium for sphenobasilar expiration assist on the affected side. Correction is then directed to the muscle spindles of the Masseter and Buccinator muscles in the usual fashion for a closing problem. Treating the temporalis muscle as two distinct functional units adds to the effectiveness of this approach. Any PTL showing on opening that does not repond to respiratory assist should be treated as a fascial involvement requiring fascial flushing technique. Tight fascial envelopes mimic opener problems. Correction of the second cervical vertebrae for posteriority usually has a profound effect on pterygoid pocket palpatory pain on the involved side of the TMJ. Horizontal pressures aimed at spreading the jaw apart at the TMJ will totally eliminate the clicking for several openings and closings of the mouth and is evidence of the importance of the horizontal factor in TMJ dysfunction which has been greatly overlooked.

Attention was originally focused upon cranial technique by Sutherland (1), kept alive by DeJarnette (2), and finally rendered clinically safe and useful by Goodheart (3). While the original work by Sutherland was therapeutically beneficial, it was difficult to master and required many years of practice and study to achieve competency. It was not until the momentous discoveries of Goodheart that cranial technique was saved from certain extinction. It has all but died in Osteopathic circles where skilled technicians grow scarce as time goes on. Any empirical cranial approach can be dangerous in unskilled hands. It was not until the techniques of "Applied Kinesiology" (AK) were developed by Goodheart that a relatively inexperienced doctor could approach the cranium scientifically through the AK system of muscle testing, challenge, and therapy localization (TL). The AK approach allows the use of treatment techniques which can be immediately rechecked for their effects on the patient. Herein lies the greatest impact of AK procedures—the ability to immediately assess the effect of the approach used. No longer must we wait hours, days or even weeks for evidences of the effects of our treatments. It was the use of these procedures which facilitated the discovery of cranial masking of TMJ dysfunction. The idea came to mind after several months of investigation of TMJ dysfunction. A rereading of the 35th edition of the British edition of Gray's anatomy was the final stimulus for the idea of cranial masking.

Increasingly difficult TMJ cases failed to respond to the usual approaches and it was recognized that more refinement in technique was necessary in order to achieve success. For several months all patients were carefully assessed for all factors involving the TMJ including visual inspection and palpation.

PALPATION POINTS

Three major areas of palpatory pain were noted

1. **PTERYGOID POCKET.** Digital pressure into the belly of the external pterygoid muscle (both section).
2. **TEMPORALIS MUSCLE.** The insertion on the anterior border of the ramus of the mandible. This extends to the level of the lower border of the upper molar teeth.
3. **CERVICAL SPINE.** The articular facets and transverse of the second cervical vertebrae.

PTERYGOID POCKET PAIN

The pain in the external pterygoids (which is called the spastic side by dentists) (or pterygoid spasm) is produced by the continual opposition of this opener muscle to the heavy chewing action of the Masseter and other closer muscles. (most of us use far too much force in chewing) This is similar to the overdeveloped Quadriceps muscle in the lower limb producing "pulled hamstrings". The jaw closers therefore become overdeveloped and literally overcome the activities of the major opener, the external pterygoid, until it finally becomes "spastic". This causes an approximation of the skull sutures affected by the contraction of this muscle. This palpatory pain is always greatly reduced by correction of the posteriority of the second cervical vertebrae on the side of dysfunction.

TEMPORALIS MUSCLE

This muscle should be approached as having two sections. On the affected side the posterior fibers are usually tight and require golgi tendon and fascial flushing techniques. The anterior fibers require techniques to strengthen, especially origin-insertion technique on the insertion at the anterior ramus of the mandible. This is usually very painful and release of the posterior fibers prior to origin-insertion lessens patient discomfort. The frequent involvement of this muscle and the inconsistent results of electromyographical investigation of it are reported by Basmajian in his book "Muscles Alive".

CERVICAL SPINE EFFECTS

There is always palpatory pain over the cervical spine in TMJ chronicity and this is almost always found to be a posteriority of the second cervical vertebrae. This should not be confused with palpatory findings in upper cervical fixations and other problems. T.S. line indicators may be present in upper cervical fixation and will be more tender and larger on the side of posteriority of the fixation in a large percentage of the cases. (on the mid point of the most anterior portion of the vertical section of the T.S. line) The pain should be elicited just prior and owing correction to point out the beneficial effects of the adjustment to the patient. The change

in palpatory pain following the chiropractic adjustment is immediate and gratifying. The space on the involved side surprisingly enlarges following the adjustment. The mechanism is unknown but thought to be mediated by the autonomics.

F A S C I A L E F F E C T S

Any TMJ problem that shows PTL on opening and does not respond to respiratory challenge is a fascial shrinking problem and should be treated as such. In difficult cases the golgi tendon technique is used to pull origin-insertion of involved muscles in opposite directions away from the belly of the muscle so as to elongate or weaken (stretch) the muscle and activate the golgi tendon organs in a manner so as to cause a release of muscle contraction. The muscle spindle nerve networks in the belly of the muscle then should be pushed together to also gain the same effects of contraction release. Fascial flushing is also necessary and the need for this will manifest on a forced opening of the mouth wherein the muscle and fascia are stretched momentarily. This may confuse the unwary and be mistaken for the opener problem. Prior to the discovery of these effects, careful testing and retesting of PTL upon jaw opening showed little or no response to treatment of the external pterygoid on jaw opening problems. The increase in opener problems that occurred with some investigators following the use of the neck extension probably was due to fascial stretching. In the chronic TMJ the entire head and neck are involved along with the hyoid and its' muscular attachments.

T H E H O R I Z O N T A L F A C T O R

While working on a very difficult TMJ case with gross clicking on both opening and closing, it was noticed that the patient's head looked as though it was literally jammed together from the sides and had the appearance of being "shrunk" horizontally. An effort was made to spread the TMJ left and right by pushing horizontally on the rami of the mandible. The result of this effort was a total elimination of the gross clicking on opening and closing, however the result was shortlived and after several jaw movements (opening and closings) the clicking returned. The effect of this horizontal factor was reported to Goodheart who shortly thereafter made the serendipitous discovery of the effects of the absence of light on muscle strength and developed the cranial fault correction related to the pineal gland. This approach employs the use of horizontal pressures on the mandible and pterygoid processes of the sphenoid bone. These horizontal pressures produce by far the greatest effect on clicking TMJ's and it is hoped that the addition of the pineal substance will prove to be the factor necessary to hold the corrections.

S U M M A R Y

The efficacy of this approach was demonstrated in Houston at the ICAK winter meeting in December, 1978. A preliminary report was rendered by A. Karpowicz, D.C., a former AK student, now diplomate of the ICAK, who learned the technique in advanced AK classes in Philadelphia in early 1978. This report was published in the summer notes of 1979. The Houston

demonstration involved a chiropractic student/patient who was wearing a dental splint at the time of the demonstration. Symptoms were gross clicking, discomfort and asymmetrical opening and closing of the mouth with gross lateral deviations. On the most painful side, the TMJ showed on opening, the sphenobasilar expiratory fault was diagnosed and corrected and the TMJ then showed on closing. The masseter and buccinator were then treated by muscle spindle activity in the belly of the muscles in the usual fashion for a closer problem. On that same side the posterior fibers of the temporalis muscle were released and the anterior fibers were tightened. Origin-insertion technique was used on the temporalis insertion on the anterior surface of the rami of the mandible. On the opposite side the sphenobasilar suture had to be corrected in reverse, i.e., pushed together on inspiration and the temporalis was corrected in opposite fashion. It was as though the tight side was literally pulling apart the opposite side and weakening all structures. This will give the appearance of the cranial bulge disfiguration. Following corrections, the jaw was on center line and the click and pain had been eliminated. It should be noted that the skull has to be "pulled apart" on the tight side and pushed together on the other side in most cases of bilateral involvement. The TMJ is simply therapy localized and checked against respiration. A further check for forced inspiration/expiration, left and right confirms the suspicion for the requirement. The TMJ can also be therapy localized and checked against other anatomical sites, for example a patient with a right eye complaint showed positive therapy localization over the eye which was abolished by therapy localization of the opposite TMJ. Correction of the TMJ abolished the positive therapy localization over the eye and later eliminated the eye symptoms. (burning and watering)

The key to the approach is to differentiate between slight and wide opening of the mouth. The usual opener problem shows on slight opening of the mouth during therapy localization which is abolished by respiration either in or out. This is then further corroborated against forced respiration on one side at a time to definitely establish the need for correction. To differentiate this opener for a fascial flushing requirement we simply have the patient open the mouth as widely as possible and retest. This is similar to placing any muscle into a stretch just prior to retesting it. Under these conditions the closers require fascial release.

The object of this paper is to point out the fact that the TMJ dysfunction previously thought to be due to external pterygoid is either a cranial respiratory problem or a fascial shortening problem. I have not treated an external pterygoid muscle since discovering this new approach. Goodheart last reported that he continues to see opener problems at the rate of about one out of fifty. I would expect our research efforts in this area to continue to improve as our experience level continues to increase.

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RESEARCH ITEMS FOR 1980

By Daniel H. Duffy, D.C.

ABSTRACT: The indicator for the Teres Minor on the T.S. line requires investigation. The effect of the junction of the coronal and sagittal sutures on abdominal muscle activity also requires investigation.

The Teres minor T.S. line indicator appears to be at the location of the neck flexor-extensor indicators. This has been corroborated by therapylocalization of the indicator checked against the muscle and by palpatory tenderness changes of the nodule following correction of the muscle by neurolymphatic, neurovascular etc.

The point governor vessel 20 which corresponds to the neurovascular point three was found to have a profound influence on the abdominal muscles and has been used by this writer for this purpose since 1973. It seemed to work better for me than the published points associated with the abdominals. GV 20 is used for prolapsis by acupuncturists and after reading an account of uterine prolapse that responded to this treatment point I decided to find out if this was due to abdominal musculature and checked GV as a neurovascular point. I.e., vigorous rubbing would weaken the associated muscle and light touch would strengthen it. I would suggest a corroboration or refutation be made by some other investigator by vascular analyzer or biofeedback techniques.

The upper trapezius muscle appears to be shown on the T.S. line at the pectoralis area. A weakness of the upper trapezius muscle will often mask a weakness in the neck flexor or extensor on the opposite side (in postural analysis). This type of combination and its effects on T.S. line indicators should be investigated.

Those of us who lack higher sense perception which comes from long years of study and concentration coupled with lots of experience can begin with simple studies such as these to begin our development. Constant repetitive studies such as these often are rewarded by a sudden illumination of an idea which is just as often unrelated to the subject under investigation.

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SEASONAL VARIATION IN BODY TEMPERATURE

By Daniel H. Duffy, D.C.

ABSTRACT: At the onset of cold weather in the fall of 1979, an increase in axillary temperature was observed in all patients checked. The normal temperature espoused by Broda Barnes (97.8-98.2, axillary) may require a seasonal correction. Placing the temperature probe or thermometer too low in the axilla will cause readings in excess of one degree lower than actual.

Following Goodheart's discovery of the effects of cranial pumping on body temperature and the location of the neurolymphatic point for the pituitary gland, an effort was made to note body temperature on all patients regardless of chief complaint or symptomatology.(1) Patients were asked to hold the mercury thermometers in the axilla prior to treatment with a minimum of ten minutes placement. (temperatures usually peak within four or five minutes) It was soon apparent that a slight displacement would cause low readings and the importance of proper placement deep in the axilla is necessary. The patient cannot be allowed to place the thermometer themselves and many patients must be palpated to insure that the instrument is as deep as possible, especially the thin patient. Patients showing subnormal temperatures were placed on the biofeedback instrument and treated kinesiology for pituitary-thyroid-adrenal-ovarian dysfunctions. It should be noted that the symptoms of hypothyroidism and hypoglycemia are all but indistinguishable. The thyroid and adrenals are both involved with body temperature and long continued treatment of one will upset the other. The hypoglycemic, hypoadrenic who literally falls apart after several weeks of treatment is often recovered by proper attention to the thyroid.

Shortly after the drop in temperature in September and October, all patients showed a rise in body temperature including difficult thyroid cases which had previously failed to maintain the normal temperatures gained during treatment. Some of these patients required repetitive efforts to maintain normal temperatures. As we continue to monitor axillary temperatures during this winter of '79-80 we continue to see the majority of readings falling between 98.2 and 99.2. Those difficult patients with low temperatures are seen with more "normal" readings between 97.2 to 97.8.

One difficult menopausal female was found to respond with a full degree of temperature rise from neurolymphatic treatment to the ovary which could "lock up" iodine.

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ON THE USE OF GONADAL PROTOMORPHOGENS

By Daniel H. Duffy, D.C.

ABSTRACT: A 32 year old multipara female patient was found to require both ovary and uterus protomorphogen to obtain a response on a dysfunctioning piriformis muscle. No response was noted with the protomorphogens when used individually.

In an effort to correct all findings on a very debilitating case of premenstrual migraine it was discovered that the patient showed evidence of a category one pelvis with a weakness of the piriformis muscle. Correction of the piriformis did not result in a satisfactory response and protomorphogen was selected to test against the muscle. Ovary tissue was tested without response and uterus was tested also without response. The protomorphogens were then placed in the mouth at the same time and there was then an immediate observable increase in muscle strength of the piriformis muscle. This could mean that some cases require simultaneous administration of the nutrients to gain corrections.

Goodheart has shown for example that the parotid may be required along with thymus to obtain a response from the infraspinatus muscle which is associated with the thymus.(1) The concept is not new however this combination being reported is new to me and may help others who may have been neglecting the use of these nutrients due to previously poor responses. My own experience showed such poor response to these substances that they were rarely used and then usually on an empirical basis. I would suggest all endocrine substances be checked in the rare problems that do not respond to the usual approaches. A very frequent combination is the thyroid-adrenal which often produce imbalances in each other when treated for extended periods of time.

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MICRO-FIXATION OF DORSAL SPINE

Dr. J. V. Durlacher, B.A., D.C.

ABSTRACT: Many micro-fixations of the dorsal spine go undetected by the normal testing of the teres major bilaterally because this indicator is negative.

INTRODUCTION

Many times when testing for dorsal spine fixations using the bilateral teres major muscle¹ weakness as an indicator, there is a negative reaction. To then bring the patient up off the adjusting table to a sitting position and apply additional weight to the head and shoulders and then quickly return the patient to a position either standing or in the prone position to test the bilateral teres major is time consuming and inconvenient. Therapy localization by the patient to this area is many times impossible due to restriction of arm motion. Therapy localization by the doctor as described by Stevenson² also indicates a negative response.

METHOD

To determine the presence of a micro-fixation in the dorsal spine area, a double hand bilateral spinal challenge is made placing one hand on the right side and the other hand on the left side of the spine, using a moderate (5-10 lb) thrust and check for crepitude. If a crepitude is observed, challenge the ipsilateral transverse processes of two adjacent vertebra from which the

crepidence was produced. For instance, if the thrust was made in the D-5 D-6 level, the right transverse processes of D-5 and D-6 would be challenged towards each other and or apart from each other. If there is a positive response to challenge these would be adjusted in the same manner as is done for reduction of intervertebral disc problems. The left side is now challenged in the same manner and adjusted if necessary.

SUMMARY

It appears that the micro-fixation is corrected with the moderate thrust to check for crepidance and that beneath this micro-fixation a intervertebral disc type subluxation is uncovered. This procedure has been tested on 150 patients.

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One More Fixation
Innominate Sacral Fixation

* * * * *

Edward E. Evans, D.C.

Abstract: In our practice we have x-rayed almost all of our patients. Also we use the Gonstead Method of measuring the pelvis for subluxation since 1960. In 1969 we became interested in Applied Kinesiology and have followed a total Kinesiological approach to patient management since. I still mark my patients' x-rays using Gonstead's pelvic measurements to see if therapy localization and challenging correlate to x-ray listings. In most cases they do.

* * * * *

The x-rays that demonstrated the most obvious subluxations were many times the enigma. They didn't therapy localize or did they challenge.

Dr. Goodheart's I.C.A.K. study tape 54⁽¹⁾ explained the pelvic internal and external subluxations which didn't therapy localize or challenge. Still there were the patients that presented obvious anterior and posterior x-ray listings of usually more than three centimeters difference that did not therapy localize or challenge.

I feel this group has a sacral innominate fixation. This is a ligamentis fixation involving the posterior sacroiliac

(2)

ligaments which are illustrated on page 284 of Gray's Anatomy 25th Edition. When the innominate is fixated in a posterior position you must challenge the short sacroiliac and long posterior sacroiliac ligaments by placing one hand on the posterior superior iliac spine and the other on the ipsolateral sacral surface. When the innominate is fixated in an anterior position, challenge the sacrotuberosos and sacrospinous ligaments by placing one hand on the ischium and the other on the ipsolateral sacral apex.

Correction of a posterior fixation is accomplished by a hard thrust simultaneously on the posterior superior iliac spine and ipsolateral sacrum.

Correction of an anterior fixation is accomplished by a hard thrust on the ischium and ipsolateral sacral apex simultaneously. The patient should then be therapy localized in the supine position left and right and adjusted as challenged.

Sometimes the opposite hip may then also need to be therapy localized and adjusted.

References:

(1) Goodheart Study Tape 54

FLEXION-TRACTION TECHNIQUE

by Kenneth S. Feder

ABSTRACT: The purpose of this paper is to incorporate several corrective techniques into the Applied Kinesiological Management of discogenetic involvement.

Discs are composed of annulus fibrosis and nucleus pulposus. The annulus consists of concentric tissue layers of firm elastic consistency. Anteriorly, these layers number 15 - 20, and posteriorly 7 - 10. The annulus is firmly attached to the end plates by means of Sharpey's fibers. The nucleus occupies about half the disc surface area. It is ovoid, containing a gel-like material which creeps or changes shape under load and is situated posteriorly to the center of the disc. It is incompressible, but deformable, and is under positive pressure at all times which slightly distends the annulus. In the young adult, the nucleus is firm, springy and elastic. With advancing age, the nucleus loses some of its water content and becomes less elastic, merging into the surrounding annulus. Discs are thinner at the back than the front, and are more vulnerable to herniate at this point, but owing to a strong band of the posterior longitudinal ligament the break takes place more often on one side or the other of this band (postero-lateral) than at the straight posterior.

Before discussing the diagnostic and therapeutic approach of disc involvement, a review of the basic types of disc involvement will be outlined.

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Disc Protrusion: Protrusion of disc material (Fig. 1) means that the bulging nuclear material is contiguous with the remaining nucleus pulposus, and the annulus fibrosis is stretched, thinned and under pressure.

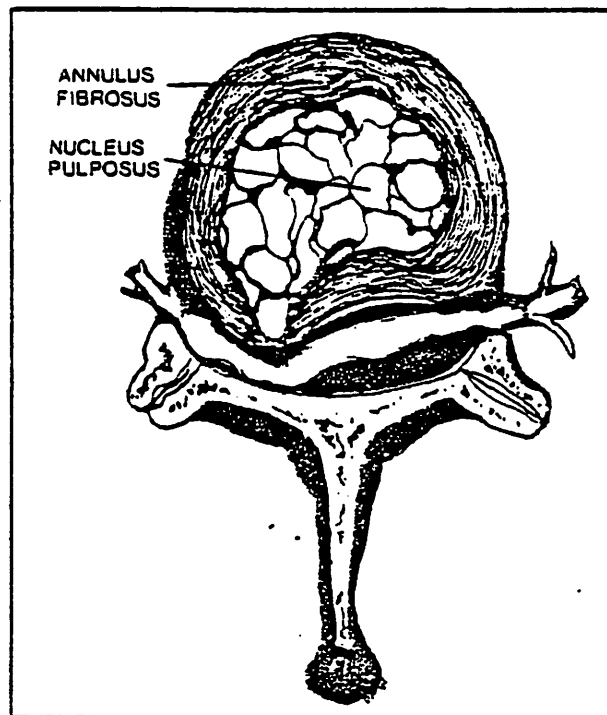


Fig. 1. Illustration of nuclear protrusion. The bulging nucleus pulposus is contiguous with the remaining nuclear material.

It has been found that the pressure within the nucleus pulposus is 30 lbs. per square inch, and the pressure is 30% less while standing than sitting, with 50% less pressure while reclining than seated. The cerebral spinal fluid pressure is 100 to 200 mm. of water in the recumbent posture and 200 mm. higher in the sitting posture. This is important in treatment of the disc when considering that sitting must be avoided.

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The nucleus pulposus occupies about half the disc surface area and bears the vertical load while the annulus bears the tangential load. Nuclear degeneration allows shift of stress and weight bearing forces. Research has revealed that there is a ratio of 15:1 between the anterior and posterior weight-bearing forces of the body - therefore, lifting 100 lbs. with the arms, places a total pressure of 1,600 lbs. on the nucleus pulposus.

Degenerated Intervertebral Disc: Degeneration of the intervertebral disc and the subsequent changes in adjacent vertebra and ligaments are termed spondylosis. Fissuring of the annulus fibrosis occurs posteriorly, usually where the posterior common ligament is least strong. Fibrosis of the annulus fibrosis occurs as it loses its sponginess and elasticity. The disc space thins, with sclerosis of the cartilaginous end plates and new bone formation around the periphery of the contiguous vertebral surfaces. The altered mechanics place stress on the posterior diarthrodial joints and they lose their normal nuclear fulcrum for movement. With the loss of disc space, the plane of articulation of the facet surfaces is no longer congruous.

The facets lose their gliding motion involving one upon another, and the synovium undergoes hypertrophic proliferation typically known as osteoarthritis. This first condition involving the loss of intervertebral disc height and the accompanying osteophytic and subchondral sclerotic changes, has been termed discogenic spondylosis. The next

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step, involving facet arthrosis, is consequently termed discogenic spondyloarthrosis.

Prolapsed Intervertebral Disc - (Fig. 2): Prolapse exists when the extruded nuclear material loses continuity with the existing nuclear material and forms a free fragment within the spinal canal. The prognosis of a true prolapse is extremely poor, and surgical intervention is usually necessary. Fortunately, the incidence of prolapse is rare, its etiology is severe trauma or repeated trauma sufficient enough to cause the nucleus pulposus to bulge and tear through the annulus.

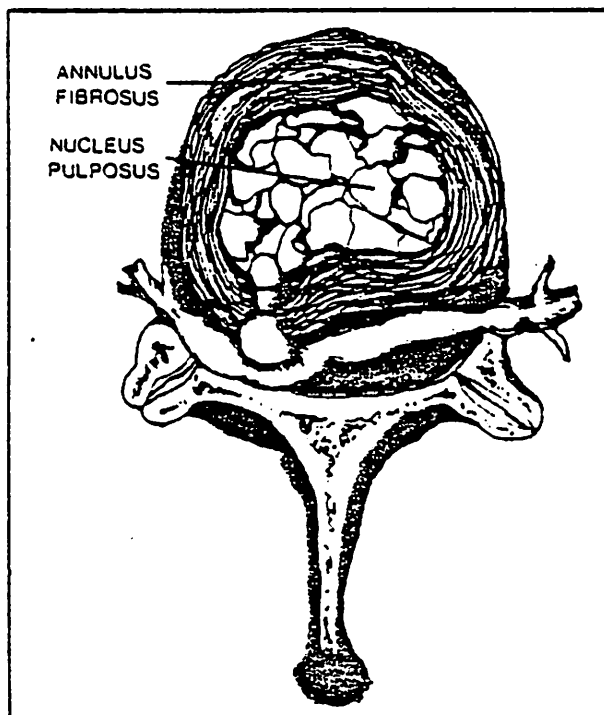


Fig. 2. Illustrating nuclear prolapse. The bulging nucleus is now a free fragment and is no longer contiguous with the remaining nuclear material.

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In the young person with a turgid nucleus which contains up to 80% water, the pressure on the protruding nuclear material is greater than in the older person in whom the nucleus pulposus has become dehydrated and converted into a hardened mass, therefore herniation is a greater threat to young individuals between the ages of 30 and 50 having a good nuclear turgor, than in the elderly, in whom the nucleus is fibrotic.

Clinical Observation of Discogenic Lesions: The intervertebral disc protrusion is by far the most frequently seen occurrence in a Chiropractor's office.

The illustration below (Fig. 3) shows that a disc protrudes either lateral to a nerve root, medial to a nerve root, under a nerve root or in a central position. When the disc protrudes lateral to the nerve root, the patient will seek an antalgic lean away from the side of disc lesion.

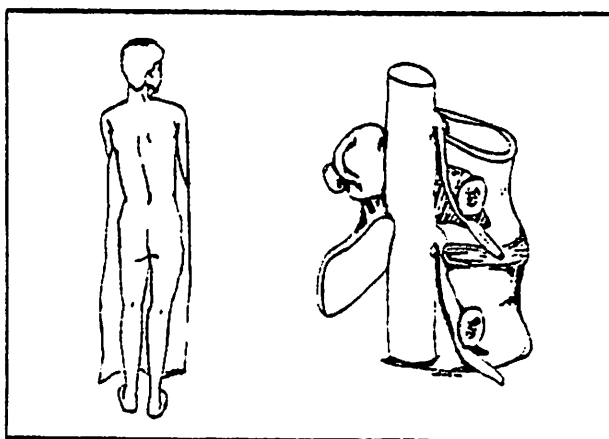


Fig. 3a. Lateral disc protrusion.
Note that the patient leans away from
the side of involvement.

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When the disc protrudes medial to the nerve root, the patient will seek an antalgic lean into the side of disc lesion or pain.

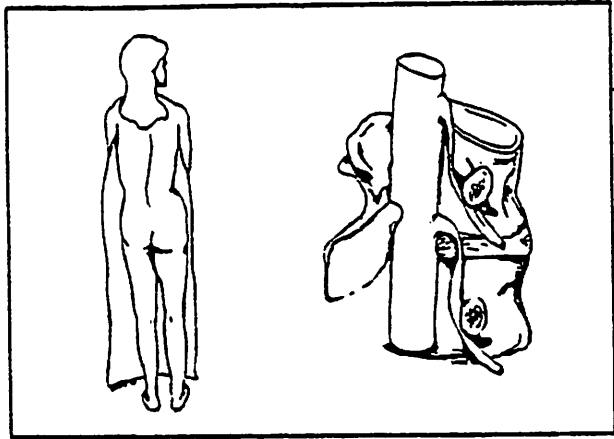


Fig. 3b. Medial disc protrusion. Note that the patient leans toward the side of involvement.

In a central disc lesion, the patient will assume a flexed posture of the lumbar spine with or without lean to either side. Protrusion under the nerve root may result in no lean.

The side of sciatic pain distribution and the side of antalgic inclination help establish the location of the disc protrusion in relation to the compressed nerve root and assist in the determination of the type of treatment.

The level of disc involvement usually is the site of vertebral rotational and lateral flexion changes, and this level may or may not be observed on usual examination of the patient's spine. The site of lateral flexion and rotation change may be quite noticeable or very slightly discernible on x-ray.

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In order to corroborate sciatic pain to nerve root origin, thus aiding in our diagnosis, a discussion of the normal anatomical relationship of the nerve root origin from the dural sac and its ultimate exit via its intervertebral foramen is necessary background. The adult spinal cord ends at the level of L1 or L2 at the conus medularis, continues caudally as the filum terminale to attach at the back of the coccyx. The filum terminale is encased in dura mater to the level of S2.

At each vertebral level, a pair of nerve roots leaves the dural sac with each enclosed by dural nerve root sleeves. In the lumbar spine these nerve roots pass directly downward, forming the cauda equina surrounding the filum terminale until their eventual exit from each respective intervertebral foramen.

In the lumbar spine, the origin of the nerve root from the dural sac is about one segment above the exit from its IVF. The nerve root runs down laterally in direction to the IVF it exits from.

Specifically, the fourth lumbar root exits the dural sac at the level of the third lumbar disc to exit the IVF one vertebra below; the fifth lumbar nerve root exits the dural sac at the level of the fourth lumbar disc to exit the IVF one segment below; the first sacral nerve root exits the dural sac at the fifth lumbar disc level passing down to the first sacral IVF; and the second sacral nerve root lies medial to S1 originating at the lower border of the fifth lumbar disc. Thus the L4 nerve root can be compressed at its origin and course by the protrusion

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of the third lumbar disc, L5 nerve root by the fourth lumbar disc and S1 and S2 by the fifth lumbar disc protrusion.

Depending upon which author is consulted, over 90% or more of lumbar disc lesions occur at either the L4 - L5 or L5 - S1 disc level.

The dermatome innervation is illustrated in Fig. 4 below.

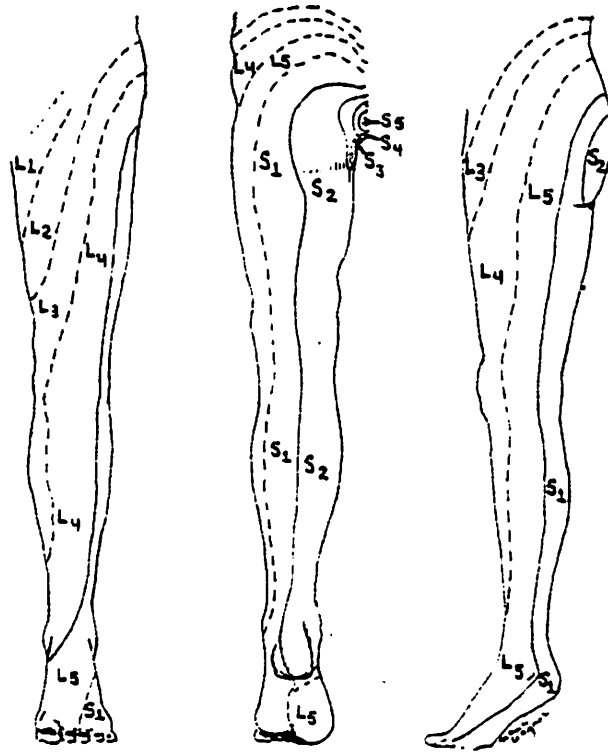


Fig. 4. Dermatome Chart.

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Diagnosis of Disc Lesions: The disc patient initially undergoes a routine physical examination. This includes a careful evaluation of his chief complaint in relation to the body systems; namely, the patient's genitourinary and gastrointestinal tract. The surgical history of the patient is evaluated to rule out complications of preexisting disease. Any history of infectious disease is evaluated. Diabetes is ruled out, as this is a common irritant of sciatic patients. Aggravation of symptoms by coughing, sneezing or straining at the stool. (Dejerine's triad) is noted as a strong differential diagnosis between protrusion and prolapse. In protrusion, Dejerine's triad is positive and in prolapse, it usually is not. On examination, the spinal tilt is recorded.

As mentioned earlier, the medial disc protrusion has the patient leaning toward the side of involvement. The lateral disc protrusion has the patient leaning away from the side of involvement. The Valsalva Maneuver (forcing air out against a closed glottis) is a differential point between protrusion and prolapse, being positive for pain in protrusion and negative in prolapse.

The Linder sign results in low back and leg pain as a result of upward traction of the dura mater lining of the spinal nerve roots when the neck is flexed. The leg raise sign is slowly carried out with determination of exactly what degree of inclination low back pain occurs.

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It has been found that in 80% of the cases, a lateral disc will produce leg pain on straight leg raising; a medial disc will produce back pain, and a subrhizal disc lesion will produce both back and leg pain. Correlate the straight leg raise sign with a medial or lateral disc. That is, is it positive on the side of sciatica indicating lateral disc or medial disc or is it positive on the well leg raise sign, indicating a medial disc on the side of sciatica.

Kemp's sign will be positive when the patient leans toward the side where pain is felt in a lateral disc, and positive when leaning away from the pain or perhaps will be positive when leaning in both directions if it involves a medial disc. The motor changes found when testing muscle strength will show a weakness on dorsi flexion of the great toe and foot when dealing with an L4 - L5 disc compression of an L5 nerve root, and will show a weakness on plantar flexion when dealing with an L5 - S1 disc compression of the first sacral nerve root. Typically, the sensory examination reveals hypoesthesia of the involved dermatome. This examination is conducted by running a pinwheel over the skin of each leg of the dermatome being tested.

Note the specific distribution of pain into the lower extremity and whether it involves the L4, L5, or S1 nerve root.

Correlate the x-ray findings to determine if there is any right or left lateral flexion of the vertebra at the level of disc involvement ascertained from dermatome evaluation.

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Investigate the site of original pain, whether it was back or legs to rule out tumor, infection or other visceral disease as a probable etiology. A differential diagnosis chart on tumor and disc follows.

<u>Differential Diagnosis</u>	<u>Neoplasm</u>	<u>Protrusion</u>
Sitting and Standing	No Change	Aggravates
Bilateral Leg Pain	Often	Seldom
Night Pain	Yes	Less
Character of Pain	Unrelenting Relentless	Intermittent
Cauda equina symptoms	More	Less
Onset, first leg or back	Back usually	Either

Fig. 5.

Neurological examination is made of the knee and ankle deep reflexes. An aberration of the knee jerk indicates possible L4 nerve root compression, and an aberration of the ankle jerk indicates possible S1 nerve root compression.

After all clinical observations have been evaluated and recorded, the doctor is ready to move on to a Kinesiological evaluation of the disc lesion. The Kinesiological evaluation will afford the doctor a system for corroboration and verification of the suspected lesion and specify an adjustment procedure for its correction.

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Therapy Localization of the Disc Lesion: The protruded and prolapsed disc can be therapy localized by utilizing a two-handed contact over the framing vertebra involved. The framing vertebra refer to the vertebra that frame or are situated above and below the suspect disc. In order to determine if a disc is involved the patient places his or her hand on its side so that the index finger is closest to the skin on one of the vertebra framing the disc. The patient then places the other hand, index finger nearest to the skin with the hand on its side, on the other vertebra above or below the first hand. The hands should approximate the discal borders formed by the vertebral bodies. An example of this therapy localization would be one hand on its side on S1 and the other hand on its side on L5. The therapy localization should be correlated with the clinical findings, but several discs in the area should be evaluated. Once the patient's hands are in place, a strong indicator muscle is tested for weakening. If the disc is involved an indicator weakness will result.

For those patients who do not have the TL in the clear, enhance the TL by any of the magnification techniques to surface subclinical therapy localization. I have found that on patients who have responded well to treatment, but who still have a symptomatic picture, that therapy localizing while they visualize themselves in a weight bearing posture, such as walking, will surface the hidden TL.

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Vertebral Challenge for Disc Involvement: The vertebrae are challenged for subluxation in the usual way, but an additional factor must be added. Since the disc is involved and there is usually a right or left lateral flexion malposition subluxation. The vertebrae need to be challenged by increasing the lateral flexion of the vertebrae, that is, opening the wedge, or challenged by pushing the closed wedge side together.

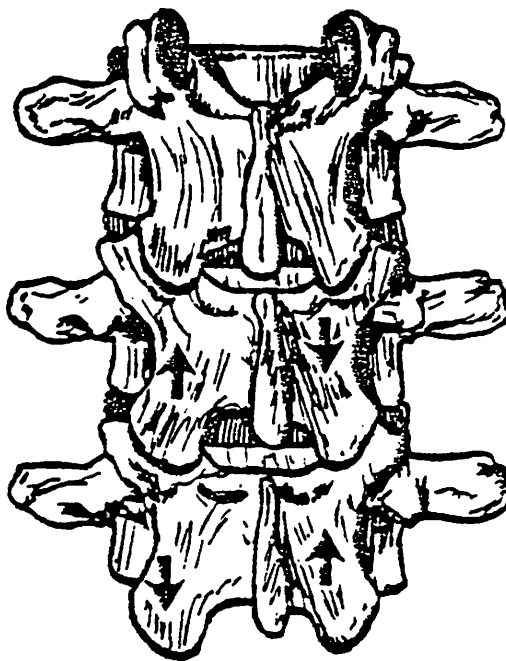


Fig. 6. Left side shows challenge for separation. Right side shows challenge for approximation.

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Most of the time, the challenge will produce an indicator weakness, on the open wedge side or the side of the antalgic position, and lateral disc protrusion. In other words, if there is a wedging between L5 and S1, with the open side of the wedge on the left, it is possible that opening the wedge more is needed. Pushing inferior on the sacrum, while simultaneously pushing superior on the mammillary process of L5 would open the wedge, and if this direction was needed in the correction of the lesion the strong indicator muscle would weaken, as is the usual indication for a positive vertebral challenge.

Disc Correction Utilizing Applied Kinesiology and the Traction-Flexion

Technique: The manipulative treatment rendered to the lateral and medial disc protrusions will be described following some basic physiological evidence of the benefits of traction. The McManis osteopathic table and the Chiro-manis chiropractic table are most suitable for the manipulative traction-flexion technique, to reduce protruded lumbar discs. The motions of the table facilitate traction and flexion of the lumbar spine in a prone position while simultaneously increasing or decreasing the lateral bending of the lumbar spine.

Traction has beneficial effects on the following parts of the anatomy:

...Muscles - where there is a freeing of longitudinal adhesions by stretching the paraspinal muscles.

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...Ligaments - which are stretched and exercised in order to help improve the tensile strength of these structures.

...Dural root sleeves - where traction enhances the movement of the normal glide of the root radicle; reestablished movement when there is root sleeve fibrosis where the dural sheath of connective tissue becomes laterally adherent to part of the nerve complex; permits an ingress and egress of the nerve roots in the intervertebral foramen.

...Articular facets - where there is a freeing of fixations and an increase in the range of movement between adjacent vertebrae.

...Discs - where traction reduces hydrostatic pressure within the nucleus pulposus, thereby reducing the bulging of the annulus fibrosis; improves the fluid interchange of tissue and aids nutrition to the motor unit structures; repositions or redistributes fragments of the disc which may be irritating the nerve root.

...Blood supply - which is affected by the restrictive movement in any area of the spine, because the blood supply of the spine is indirect ratio to the movement of its segments, according to Illi.

In preparing for the corrective procedure of the involved disc, a full Applied Kinesiological evaluation should be undertaken to establish the correlative and contributing factors to the lesion. This might include an evaluation of the muscles of the pelvic, specifically the hamstrings, gluteus groups, piriformis, adductor group, abdominals, psoas, diaphragm, sacrospinalis, quadratus lumborum, quadriceps and other pelvic related muscles. The muscles of the foot, ankle and knees should be evaluated, for their weakness places additional stress upon the lower back.

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Visceral involvement must be considered due to its viscerosomatic influence. Such syndromes as the ICV and Hiatal hernia must be considered. Structural syndromes, such as categories I, II and III, the imbrication, occulo-basic factor, fixations, roll, pitch, yaw patterns, lift technique, and in general fixing what you find. The rule of thumb is never to adjust into a protruded disc and never forcefully break an antalgic position. This further irritates inflamed tissues and causes an exacerbation of symptoms.

Once acquiring as much diagnostic as well as kinesiological data as necessary to suggest the existence of disc involvement, the following corrective technique can be applied. The corrective technique is fashioned after several existing chiropractic and osteopathic procedures including: sacro-occipital technique, Cox technique, flexion and extension McManis technique, and Applied Kinesiology techniques.

Traction-Flexion Technique for Laterally Protruded Discs: The patient is placed in the prone position on the McManis or Chiro-Manis table and a determination of leg length is made. The next step would be to apply blocks or wedges such as those utilized by DeJarnette to balance the leg length. If the right leg is short the right block should be placed under the right femoral head pointing at a 45° angle toward the left hip. The left block should be placed under the left anterior superior iliac spine pointing at a 45° angle to the right femoral head. The reverse is true if the left leg is short. The blocks should be applied after the determination by TL and challenge that there is disc involvement. The challenge direction is noted to determine the side of correction.

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The correction procedure involves the help of an assistant. The assistant is responsible for the maneuvering of the traction-flexion portion of the table while the doctor specifically manipulates the involved disc.

Once the blocks are in place, and the patient is properly positioned over the traction opening, the patient's ankles are fastened in padded cuffs. The patient pulls forward to take all slack from the cuffs and holds firmly to the overhead T bar. The table is now released and made ready for the flexion-tractioning.

The correction contact is made on the vertebral portion which produced the challenge weakness. If the vertebral TP's produced the challenge weakness then the doctor's thumbs are positioned on the transverse process of vertebra involved. If the spinous processes produced the challenge weakness then they are used for the correction. Once the correct contact has been assumed, the assistant prepares herself for controlling the pelvic portion of the table.

If the lesion involved is a right lateral disc protrusion which challenges using the transverse processes, the following procedure is performed. The patient is instructed to deeply inhale and during the inhalation the assistant is flexing the pelvic portion to approximately 20° while also moving the pelvic portion to the left or medially approximately 30°. The table is flexed downward to the tolerance level of the patient. The table should be moved very slowly and the final table position should be reached at approximately the end of the

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inspiratory phase. It should be a pumping motion concomitant with the inspiration. As the patient exhales, the table should slowly move back to its starting or neutral position.

At the same time that the assistant is maneuvering the pelvic portion, the doctor is manipulating the involved disc. The doctor's thumbs contact the TP of the vertebra above the disc and the TP of the vertebra below the disc. On inspiration, the doctor pushes caudalward on the inferior vertebral contact while holding firm his upper contact. As the patient exhales, his inferior contact hand holds firm while he pushes cephalward or superiorly on the upper contact. This pushing motion coincides with the normal vertebral respiratory motion. The doctor should apply approximately 5 - 7 lbs. of pressure and both the assistant and doctor should repeat the procedure on 5 - 6 respirations or as indicated by the therapy localization or challenge. If the lesion were a left lateral disc protrusion, the same procedure would be employed, however the opposite side would be treated.

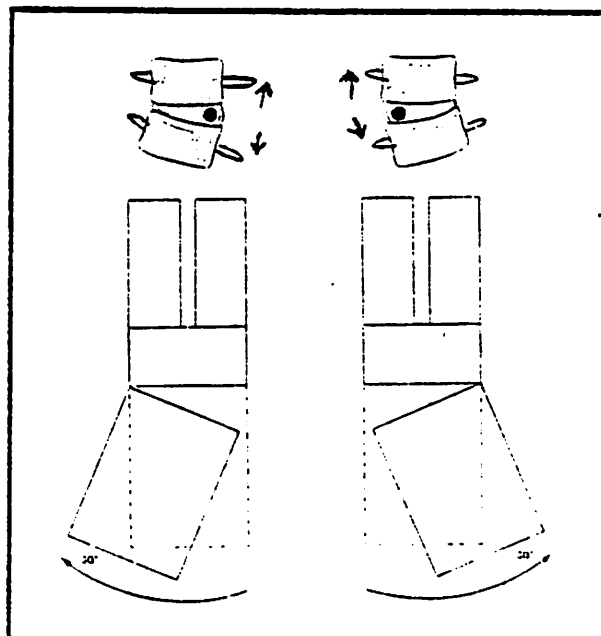


Fig. 7. The horizontal or side-to-side movements of the swinging leaf are viewed from above. Treatment for the lateral disc is illustrated.

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If the vertebral portion that produces a challenge weakness is the spinous process and not the TP's then the assistant would use a straight floorwood push to the pelvic portion of the table while the doctor manipulates the spinous processes in a similar fashion to the TP's. This would involve a 20° flexion without medial movement of the table.

Some general considerations to the above technique would include:

...a maximum traction force should be 120 lbs.

...in the acute disc case, the patient may not tolerate much flexion.

...the acute patient may not tolerate the added traction of ankle strap restriction.

...only traction to tolerance.

Traction-Flexion Technique for Medially Protruded Discs: This procedure involves the same treatment preparation as the lateral disc with the exception of table movement and vertebral manipulation.

The challenge direction and vertebral portion that produced the challenge weakness are noted. If the indication is for a right medial disc, using the TP's as indicators, then the assistant would move the pelvic portion of the table into a 20° flexion and the pelvic swing should be toward the right or generally into the painful side. The doctor contacts the TP's on the right, and on inspiration pushes inferior on the superior TP while holding firm the inferior TP. Then on expiration the doctor pushes superior on the inferior TP while holding firm the upper TP. Both doctor and assistant maneuvers are coincident with 5 - 6

respirations. The same procedure is applied to a left medial disc, the variations being contact side and table movement.

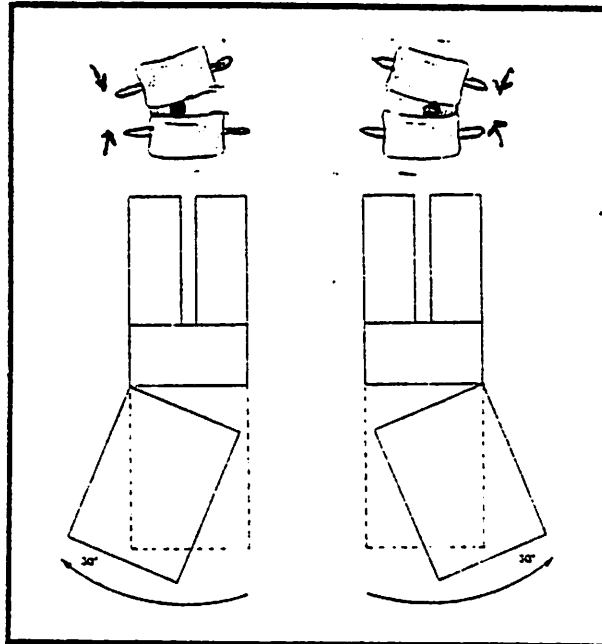


Fig. 8. The horizontal or side-to-side movements of the swinging leaf are viewed from above. Treatment for the medial disc is illustrated.

If challenge weakness occurs due to spinous process challenge, then the table is flexed only and the correction is made utilizing the spinous processes.

As a general consideration in treating lateral and medial discs, Dr. James Cox has stated that a lateral disc with coronal facets responds most favorably. A medial disc with sagittal facets is the most difficult to handle, requiring surgery in the greatest number of cases. In

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conclusion, the medial disc protrusion is the most difficult to treat and requires surgical intervention more often than the lateral protrusion.

After the traction-flexion manipulation has been completed the patient should be treated kinesiology. I have found that attention to the psoas muscle imbalance in a weight bearing position has significantly reduced antalgic postures. The psoas can be treated prior or after traction correction has occurred. The patient is asked to stand against the HiLo table or wall and externally rotate the foot while bringing the leg forward approximately 24". The psoas muscle is flushed or ironed out on the hypertonic side while the hypotonic side is strengthened. If correction is adequate, an increase in vertical posture should occur.

Case Management

1. In cases of acute sciatica, cryo therapy is applied for 20 minutes every two hours during the first 48 hours. The following three days, the use of alternating moist heat (10 minutes) and cold (5 minutes) for 30 minutes at three hour intervals is recommended.
2. A lumbro sacral brace should be worn for 24 hours a day until the leg pain is greatly relieved. Many backs are aggravated by nighttime turning and twisting in bed.
3. Patients are instructed to refrain from sitting during the acute stages of disc disease.

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4. Depending upon the severity of the disc problem, patients will require different treatment periods ranging from one day of treatment to daily treatment until a remission of symptoms is noted.
5. If three weeks of therapy do not produce marked relief of symptoms, consultation with another physician is recommended.
6. The use of manganese as reported by Dr. Goodheart has improved the results of intervertebral disc cases.

SUMMARY: This paper has presented a system to differentially diagnose lateral and medial disc protrusions by utilizing orthopedic, chiropractic and applied kinesiological procedures. The corrective procedure is a correlation of many fine techniques employed in the management of disc related conditions.

Those of you desiring additional information concerning table application, please refer to the ACA Journal of December, 1978, Volume 15, Number 12, entitled the McManis Table by Hilton H. Taylor, DC and the ACA Journal of December, 1979, Volume 16, Number 12, entitled Low Back Pain by James M. Cox, DC

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Applied Kinesiology Treatment Card

by Kenneth Feder, DC

ABSTRACT: This paper is intended to provide a record keeping system for the Applied Kinesiologist who desires a reduction in the number of recording forms. It's purpose is to keep recording of information at a minimum by utilizing a system of numbers or checks to indicate treatment performed.

In an attempt to explain the overall mechanics of the card, each section of the treatment card will be explained separately.

Section 1.

This section is for the recording of personal data. The card is designed so that when folded in half the patient's name, date of admission and case number will appear at the top. This facilitates easy filing.

Section 2.

This section is for the recording of the chief complaint, secondary complaint, and general history.

Section 3.

This section is for recording of all diagnostic and interpretative comments.

Section 4.

This section provides for the recording of examination findings and for subsequent re-evaluations.

Section 5.

This section provides space for case management suggestions.

NO. DATE PROGRESS REPORT MEDICARE SUB LEVEL

1 1/3/80
2 1/4/80
3 1/6/80

SECTION
14

NAME _____ DATE _____ CASE NO. _____
ADDRESS _____
EMPLOYER _____ SECTION 1 OCCUPATION _____ AIR PHONE _____ RES PHONE _____
AGE _____ BIRTHDATE _____ M F M S D W SPOUSE _____ CHILD _____ REFERRED BY _____

CHIEF COMPLAINT _____

ETIOLOGY SECTION 1 BETTER/WORSE
DURATION SECTION 2 PAST RX _____
SURG. 2 FRACT. _____
ILLNESS _____ DRUGS _____
DRINK _____ SMOKE _____ VITAMINS _____ DIET _____
FAMILY _____ COMMENT _____
SECONDARY COMPLAINT _____

X-RAY FINDINGS: SECTION 3 SHORT LEG P _____ S _____
DIAGNOSIS 3
COMMENT _____

EXAM FINDINGS: DATE _____ RE-EVALUATION: _____
BP. LY _____ RT _____ LT _____ DATE _____ RT _____ LT _____ RT _____ LT _____ RT _____ LT _____ RT _____ LT _____
SIT _____ RT _____ LT _____ RT _____ LT _____ RT _____ LT _____ RT _____ LT _____ RT _____ LT _____
ST _____ RT _____ LT _____ RT _____ LT _____ RT _____ LT _____ RT _____ LT _____ RT _____ LT _____
ORGAN _____
REFLEXES _____

CERVICAL RANGE

	NORM	EXAM	PAIN	EXAM	PAIN	EXAM	PAIN	EXAM	PAIN	EXAM	PAIN
FLEXION	30										
EXTENSION	30										
LAT. RT.	40										
LAT. LT.	40										
RT. ROT.	30										
LT. ROT.	30										
CIRCUM											

DORSAL/LUMBAR SECTION 4

	NORM	EXAM	PAIN	EXAM	PAIN	EXAM	PAIN	EXAM	PAIN	EXAM	PAIN
FLEXION	90										
EXTENSION	30										
LAT. RT.	20										
LAT. LT.	20										
RT. ROT.	30										
LT. ROT.	30										
OTHER											

ORTHOPEDIC TESTS: _____
PERIPHERAL SENSITIVITY: _____

EXERCISES: CCI _____ CCH _____ CCH _____ LOWRACK _____ SITBACKS _____ ALEXANDER _____
OTHER _____ DIFTS: DETOX _____ HYPOGLYCEMIC _____
METABOLIC _____ OTHER _____ SECTION 5

RECOMMENDED VISITS
5 - WEEK _____ WKS _____ VISITS 15 3 - WEEK 3 WKS 4 VISITS TOTAL VISITS 21
4 - WEEK _____ WKS _____ VISITS 2 - WEEK 1 WKS 2 VISITS
1 - WEEK 1 WKS 1 VISITS

000 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 16

3 - WEEK	2 - WEEK	1 - WEEK	TRACIION DATE
1 1/4 1/6 1/8	1 13	1 13	1 18
2	2 14	2 14	2 17
3	3 15	3 15	3 18
4	4 16	4 16	4 19
5	5 17	5 17	5 20
6	6 18	6 18	6 21
7	7 19	7 19	7 22
8	8 20	8 20	8 23
9	9 21	9 21	9 24
10	10 22	10 22	10 25
11	11 23	11 23	11 26
12	12 24	12 24	12 27
			13 28
			14 29
			15 30

FOLD LINE

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Section 6.

This section is for recording muscle weakness and subsequent treatment. The lines to the left of the muscles are provided for the abbreviated recording of muscle treatment. Note some of the muscle treatment abbreviations at the top of the card. The four boxes with the date above them is the area for recording first examination weakness, while the other boxes are for re-evaluations. When finding unilateral muscle weakness, an R or L is placed in the appropriate box. If bilateral muscle weakness is evident, an X is placed in the appropriate box. If no weakness is evident, a dot is placed in the center of the box. (See examples on card). In the section headed date or visit number in box, the subsequent treatment of that muscle is indicated by placing the visit number which corresponds to the date in that box.

Section 7.

This area is for special comments.

Section 8.

This area is for the recording of laboratory findings and subsequent re-evaluations.

Section 9.

This section is for the recording of all recommended nutritional supplements.

Sections 10-13.

These sections are for recording treatment made on a specific date. The visit number that corresponds to the date of treatment is placed alongside the fault corrected. The date of treatment can be recorded in the box instead

Treatment Card . . . Feder
Page 3

of its' corresponding number.

Section 14.

This section is for the recording of all progress information. This section gives the correlation of visit number and date. In the upper right corner a check area is provided to remind the doctor to list the subluxations for Medicare.

Section 15.

This area shows the office staff the overall treatment recommendations.

Section 16.

This area allows for the individual recording of office visits by using a check or circle of the appropriate visit number.

Section 17.

This area is for the recording of the actual visits made by the patient. Each number refers to the week in which the visits are kept. The dates of the visits are recorded on the line next to the number.

Section 18.

This section allows for the recording of traction or therapy given to the patient.

CONCLUSION:

In our search for unification of Applied Kinesiology terminology and for improvement of communication among Applied Kinesiologists, I feel it is also necessary to achieve the most effective system of recording to provide a basis for communication. I hope that this treatment card will be of some assistance in your office procedure.

THE SPHENOID AND OTHER COMMON FINDINGS

by DR. TERRY L. FRANKS

ABSTRACT: The following is a presentation of suggestions and observations which relate to frequently encountered clinical situations.

1. After the determination of a Category I, therapy localize the side in lesion with one hand and place the other hand on a corresponding cranial fault, such as either wing of the sphenoid. After correction of the cranial fault, often the Category I will disappear.
2. Recurring need for origin and insertion technique may respond to a fascial stretch on the involved muscles, especially the neck flexors.
3. Test for a hypertonic psoas by therapy localizing front and back through the belly of the muscle with the volar aspect of the hands, while testing the psoas.
4. There seems to be a relationship between trigger points at the insertion of the inguinal ligament, a hypertonic psoas, and an anterior L5.
5. There seems to be a relationship between improper function of the pectoralis minor¹, subluxations of C7 and T1, and weak abdominal muscles.
6. There also seems to be a relationship between weak abdominal muscles, a hypertonic psoas, and an anterior L5.
7. Spindle cell and golgi tendon organ challenging by pushing

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- muscle fibers apart or together seems to find the same problem as procedural reactive muscle testing².
8. Recurring switching seems to be an indication of cranial or upper cervical faults.
 9. If skin lesions are therapy localized with one hand and the related system therapy localized with the other hand, the correlation seems diagnostically helpful.
 10. Therapy localization with the palm of the hand seems to generally indicate some sort of deficiency, and therapy localization with the back of the hand seems to indicate an excess or congestion.
 11. When two hands are therapy localized back to back in a direct line through the body, and a strong indicator muscle gets weak, this seems to indicate some form of blockage. When the resultant weakness is neutralized by tapping a specific alarm point, that procedure seems to identify the system that one is therapy localizing. And if the indicator muscle responds to a specific Bach Flower Remedy³, we could possibly be dealing with a systemic blockage relating at least partially to the emotional side of the triangle.
 12. An observation was made by this author that some of the cranial faults seemed to be compensatory because they were recurring. If this was true, there had to be other primary faults. The sphenoid seems capable of being subluxated posterior, infer-

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ior, in flexion, or in extension which may be unilateral or bilateral.

To challenge for an inferior sphenoid, place your thumbs on the inferior maxilla and index fingers on the external wing of the sphenoid. Then rebound challenge directly superior. This may be done unilaterally or bilaterally.

To challenge for a posterior sphenoid, place your hands in the same position and rebound challenge directly anterior. This also may be done unilaterally or bilaterally.

To challenge for a sphenoid in flexion, place your hands in the same position. Rebound challenge the wing of the sphenoid posterior and the maxilla anterior. Reverse this procedure for a sphenoid in extension. This may also be done unilaterally or bilaterally.

Correction is done by simultaneous pressure on the external wings of the sphenoid, and behind the pterygoid process of the sphenoid. Because of the fragility of the pterygoid process, it is necessary to place your finger very high behind the pterygoid process. This is a very painful contact but need be maintained for only three to four seconds. I have also found it usually takes an average of three to four separate corrections to get a total correction.

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PRIORITY CHALLENGINGABSTRACT

by
Dan S. Gleeson, D.C.

As we become more and more precise in our AK methodology we want to search out with even greater exactness the most important primary point from which to commence our treatment. Challenging primary against primary has allowed us to find the major and therefore a more exact point from which to start our correction.

We have searched out several methods in our attempting to determine what is primary, what is not, what should be treated first, second, etc., in any given sequence. Utilizing the great work of Drs. (1) Al Beardal, (2) Sheldon Deal, and (3) Mike Allen, we discovered there are many primary findings available to us as we searched out different patterns and it soon became apparent that just treating every primary as we found it in a given pattern or sequence, (a primary is considered to be the finding as described by Dr. Deal in his (2) Supplemental tape) was not quite all of the answer. In an attempt to determine a more exact priority, we present to you a system which may assist you even further in your efforts to help your patients.

PROCEDURES: first of all determine your primaries eg.
you may have:

- (i) 2 or 3 cranial primaries with or without
a TMJ primary
- (ii) 4 L5 - T9 - C etc. primaries
- (iii) several fixation patterns that are primary
- (iv) a talus, navicula, tibia etc. that are primary
- (v) an occiput - C1 - C2 that are primary
- (vi) a primary ICV that TL's without an L4 or 5 etc.
- (vii) (1) an atlas, calcaneum, occiput, pisiform
that are all primary
- (viii) rib fixations vs spinal subluxations or fixations
- (ix) etc., etc., etc.

As you know, each of these primary problems challenged by themselves will cause a previously intact muscle to lose its locking ability and therefore appear weakened. But if you challenge one against the other; eg. using C1 and L5, both of which challenge to be positive on the right; now challenge C1 then immediately challenge L5 and recheck your test muscle; then challenge L5 and immediately challenge C1 and recheck your test muscle. You will find that in one sequence your test muscle weakens and in the other sequence your test muscle will be intact. The challenge sequence in which your test muscle remains intact is the sequence that should be considered as most important.

WHAT DOES THIS SEQUENCE MEAN?

We believe after hundreds of these patterns, for eg. if your test muscle remains intact after the sequence of challenging C1 then L5, that the MAJOR L5 should be adjusted prior to adjusting C1 due to the fact that challenging L5 last, produced an "assisting effect" to the pattern where as challenging C1 last had no positive effect whatsoever on the pattern. Many times, after adjusting the major, the other primary i.e. in this case C1 will no longer positive TL or challenge.

These same sequence of challenging is carried out when more than 2 are found, just continue challenging the segments until one segment is found that assists all of the others and treat it first.

CONCLUSION:

Upon finding several primary lesions in any one diagnostic pattern, challenge the lesions one against the other, find and correct the major primary lesion (the one that when challenged last in sequence assists any of the other primary lesions). Hopefully you will find this system helpful and allow you to be more exact and efficient in your therapy. Good health and much success to each of you.

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MUSCLE STRENGTH VERSUS LEG LENGTH

By

Rodman L. Gleeson B.Sc. D.C.

ABSTRACT: A direct correlation between the neurological status of a muscle and relative leg lengths of the patient is discussed.

KEY WORDS: Muscle strength, leg lengths, child testing, surrogate testing.

In Applied Kinesiology, it is traditional and routine that we ask the body specific questions through some type of muscle testing and observe the answer by change in the relative strength (intact or not intact status) of the muscle. Once the practising kinesiologist has developed the art of muscle testing, this method of monitoring has proven to be consistent and satisfactory.

The ability of the body to change leg lengths has long been recognized as an analyzing tool to help the practitioner gain some insight into the state of the patient's body. Dr. Fierre Gravel, of Quebec Canada, some years ago developed an analyzing method of challenging vertebra and observing the changes in leg lengths. The activator method used in chiropractic makes use of the changes in leg lengths to help determine the type of treatment which is required. Doctors who observe leg lengths during treatment are not surprised to see some swift and dramatic changes between a pre and post leg length reading.

Perolman, in his work with finger-tip diagnosis, began to correlate the changes in leg length with the changes in the neurological status

of a muscle i.e. if a muscle changed in strength there was a corresponding change in leg lengths. To the best of my knowledge, we have not been able to consistently determine whether one leg shortens or the other leg lengthens, but rather that there is a change in the relative lengths after something has been done to the body.

Reading leg lengths can be as objective as muscle testing if the same procedure is applied each time the legs are examined. The doctor measures the leg lengths by placing his thumbs on the inferior surface of the internal malleoli with the patient either prone or supine and sights perpendicular past the thumbs to the floor. As in muscle testing it takes time to develop the art of measuring leg lengths because of the time factor, and the amount of cephalad force. It has been noted that the phenomena of leg length changes and muscle strength changes correlate whether the patient is prone or supine.

Uses of the leg-length differential may be applied in cases where a child is too young to understand muscle-testing, in patients who are unable to resist because of pain or debility, when a large number of tests have to be done in succession in a short period of time on the same person, and takes the place of surrogate testing.

Applied Kinesiology
and Electroacupuncture According to Voll

by

Bert T. Hanicke, D.C.

ABSTRACT: A brief description of the use of Electroacupuncture According to Voll, and how I have incorporated it into my Applied Kinesiology practice. Included is a description of the Control Measuring Points and their use.

The principles of Acupuncture and Meridian Therapy have been a part of Applied Kinesiology for many years, especially since the publication of the 1971 Research Manual by G. J. Goodheart, D.C.³ Every year Dr. Goodheart and many others have added to our knowledge and understanding of Acupuncture.

Recently, (1976), the work of Reinhold Voll, M.D. from Germany, has been translated into English.^{6,7} This new and exciting approach to Acupuncture has aided me in becoming more exact in my diagnostic workups and therapeutic management.

Dr. Voll's approach has been to electronically measure various points on the body, especially on the hands and feet, and to correlate these points with the organs and systems of the body.³ He has gone far beyond traditional Acupuncture in this respect and has given us points that represent specific organs, parts of organs and even specific functional aspects of many systems. Dr. Voll has actually added new Acupuncture Vessels to the traditional systems⁶ and outlined their correlations.⁷

Dr. George Goodheart mentioned in the 1979 Applied Kinesiology Workshop Procedure Manual⁴. the precise electronic measurements that can be achieved by using Dr. Voll's Control Measuring Points (C.M.P.), and illustrates the many ways these points can be useful to an Applied Kinesiologist. However, there appears to be a general misunderstanding of which points Dr. Voll actually designates as C.M.P.s.

First, let me emphasize, that these C.M.P.s are not the well known Akabane points, but are specific points that have the unique property of giving the clinician a rapid way of measuring the general energy level of an entire meridian or vessel.⁶ This saves time and energy and the necessity of measuring many individual points. These C.M.P.s give us information similar to the Akabane Points, but are more in number and from my experience, more accurate and consistent. There are two C.M.P.s on each finger and toe, one on the medial side and one on the lateral side.^{6.7}

Using an electronic instrument developed and established for just this purpose, the clinician can get measurements that aid in evaluation by classifying the findings into categories of Degeneration, Normal, Irritation, Partial Inflammation or Total Inflammation.^{6.8} These standardized measurements can then be used in diagnosis and as a monitoring mechanism of case progress or lack of progress. The instrument available in America that has been tested and endorsed by The Electroacupuncture According to Voll Association in Europe, and by Dr. Voll personally, is the Dermatron.¹ Dr. Wing's Mark V Acuomatic with Voll Modifications⁹ and the Measuring Training Unit are available from R. Lindquist Co.⁵ These, however, are not endorsed by the Electroacupuncture According to Voll Association and I have found them somewhat less precise though still

useful.

The C.M.P.s are located for the most part at the proximal osseous angle of the middle phalanx. Exceptions are the Heart Meridian C.M.P.s and the C.M.P.s for the Spleen, Pancreas and Liver. The chart at the end of the article will help you locate these more precisely, as will Dr. Voll's text. You will note that these C.M.P.s are located for the most part at osseous angles which increases accuracy and repeatability in taking measurements.

For those who do not have the above mentioned instruments or do not want to use them routinely, the C.M.P.s can be therapy localized² and monitored in this fashion. Also, various Applied Kinesiology procedures can be used and are summarized by Dr. George J. Goodheart.⁴ Especially useful is the Tap Technique to bring down an overactive meridian.⁴

In summary, I believe Dr. Voll's work to be very valuable and measurement of his points may prove to provide further objective validation of much of the work we have been doing for years in Applied Kinesiology.

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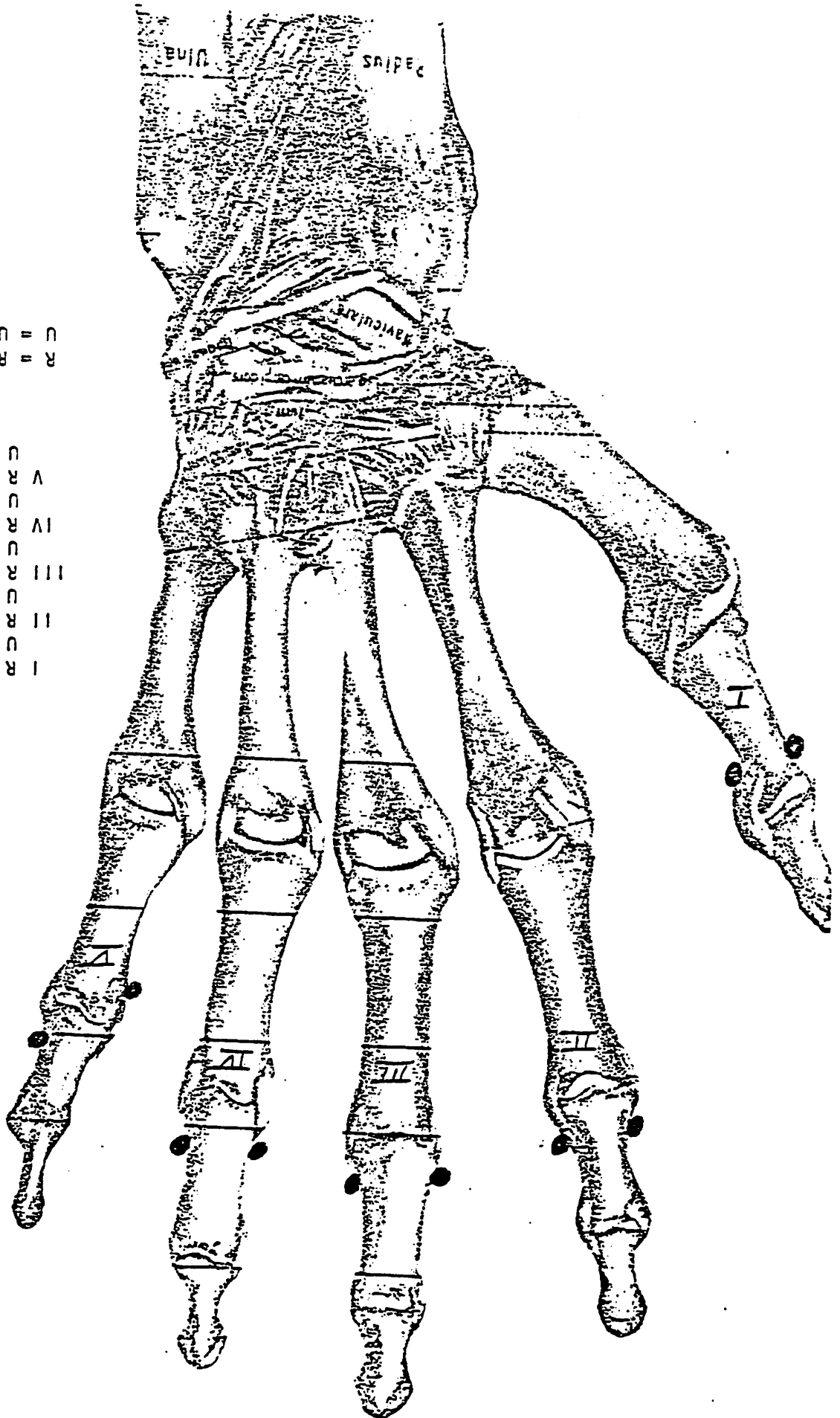
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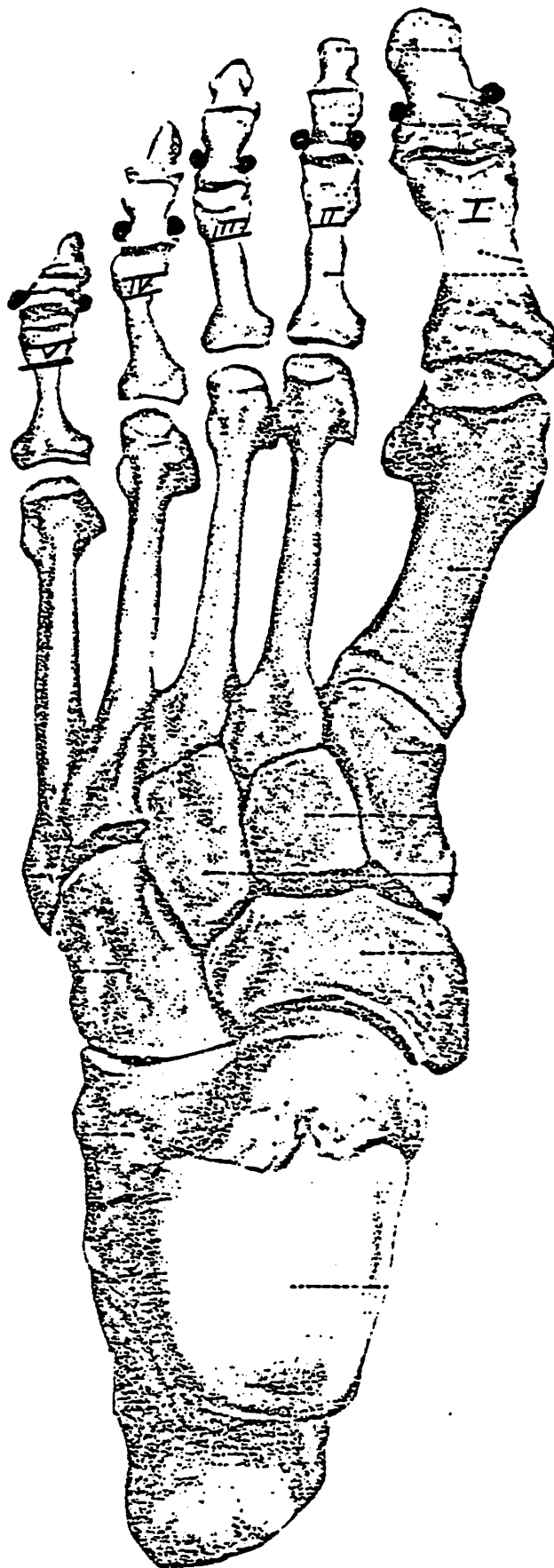
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NOTE: The above books by Voll can be obtained from Lindquist Co., 2419 West 9th Street, Los Angeles, Ca. 90006 or Acu-Designs and Supplies Ltd., Box 3, Stittsville, Ottawa, Ont., Canada, KOA 3G0. The Dermatron can also be purchased from Acu-Designs and Supplies.

- I R Lymph
- U Lung
- II R Lg Intestine
- U Nerve Degen.
- III R Circulation
- U Allergy
- IV R Organ Degen.
- U Endocrine
- V R Heart
- U Small Intestine

R = Radial
U = Ulnar





- I T R-Pancreas L-Spleen
F Liver
- II T Articular Degen.
F Stomach
- III T Fibroid Degen
F Skin
- IV T Fatty Degen.
F Gall Bladder
- V T Kidney
F Urinary Bladder

T = Tibial
F = Fibular

Applied Kinesiological Experiences
With A
Race Car Driver

by
Warren Hammer, M.S., D.C.

Abstract: During 1979 I had the experience of treating a race car driver, Terry Knight, before and after eight North American Formula Champion Series races. Formula Atlantic racing involves one thousand pound open-wheel race cars which reach speeds of up to 185 miles per hour. Some of the races involved severe trauma; i.e., rear-end collisions, catapulting nine feet into the air, in a nose high spinning attitude at 100 miles per hour and going off the track landing face down in a swamp. Some of the tracks I accompanied Mr. Knight to were the U. S. Grand Prix in Long Beach, California; Mexico City, Mexico; Westwood, Vancouver, British Columbia; Quebec City, Quebec; Elkhart Lake, Wisconsin; Mosport, Toronto, Canada and Bridgehampton, New York. Living with an athlete three to four days at a time using applied kinesiological methods resulted in some challenging applications of our work.

Open-wheel racing is an extremely hazardous, tension provoking sport. The track is usually about 2.5 miles of a winding, twisting circuit and is composed of numerous turns, banks and unusual attitudes which require slowing the car to 35 miles per hour. A race is approximately 100 miles long and the driver must shift gears at least five hundred times per race. The left leg must double clutch and

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moves at the same time as the right arm which must shift the lever and go back to the wheel, therefore moving the right arm at least a thousand times. The driver must maintain a continuous firm grip on the wheel when he is not shifting. His body is tightly fit into the car which in most cases is improperly designed for the lower spine since it is a bucket type seat. Mr. Knight wears a 3 layer fire-proof underwear and socks and a 5.2 pound helmet with several visors which he can arbitrarily cast off during the race as the visor accumulates oil and grease. The control of the wheel with the upper torso is primary.

My experience with most of the drivers indicated that the majority of them were not in the above average physical condition. (A recent article in Motor Magazine stated that stock car racers compared physically only with the average man in the street.) Unfortunately, they were more interested in the racing machine than their human machine. Most of the drivers had no knowledge of nutrition or had their own peculiar ideas as to what foods should be eaten before a race.

One of the most important factors in race competition has to be the ability to maintain as close to 100% concentration as possible. It is necessary to be totally aware of your position on the track in relation to the car in front of you, next to you and more important, in back of you. The tracks were all of the two lane variety and many of them were bounded by thick concrete walls.

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The first race at the U. S. Grand Prix in Long Beach, California, presented an interesting kinesiological experience. Mr. Knight met me at the airport and inadvertently drove forty miles in the wrong direction. The next day during qualifications he hit the right rear wing against the cement wall in a left turn. That night upon examination he had a left ocular lock. It was not until the next race that I developed a definite kinesiological check list necessary for this particular patient.

For example, one of the most dangerous aspects of a race is the start. Picture twenty rows of cars, two abreast, starting from a stopped position and suddenly all moving together. If any of the cars in front stall, mayhem develops. This particular situation apparently overconcerned Mr. Knight and recataloging technique immediately improved the mind-body effect.

In Mr. Knight's case, grip strength was another important factor which was treated by golgi tendon, muscle spindle cell and origin-insertion techniques, on the opponens pollicis, opponens digiti minimi and pronator quadratus.

Probably, his main problem related to the pituitary-adrenal complex. After the first few races his adrenal-sartorius factors were always weakened. It became necessary to use pituitary and adrenal nutritional support as a daily routine and finally to use five adrenal protomor-phogens just before a race to ensure maintenance of the

adrenal-sartorius complex.

On muscle testing, it was found that the dark visor and blue sunglasses had a weakening effect. The synthetic material used to protect him against fire also had a weakening effect. I had a special lumbar support installed into the car seat.

Nutritionally, it was essential that he have enough energy without a physical let-down for the whole race. Spring water, trace minerals and up to six fructose tablets were taken before each race. A week before each race he was instructed to use the method of restricting carbohydrates early in the week in order to deplete stored sugars and towards the end of the week (day before racing) load up with carbohydrates so that the liver and muscles will store more than the usual amounts of glycogen.

Usual kinesiological cranial and muscle faults were found and corrected after each traumatic experience.

Thanks to Dr. Goodheart and all of you in ICAK, I had an enriching experience and feel that I performed an extremely worthwhile service.

SPLIT-BRAIN PUTTING

(Addendum to
Summer 1978 paper)by
Warren Hammér, M.S., D.C.

ABSTRACT: The use of activities related to brain sidedness may increase or decrease brain related functions depending on how many activities are utilized at a time.

In the previous 1978 paper on putting⁽¹⁾, the basic concept was that intuition (right brain) was the essential factor for long putts over six feet, and dominant use of the left arm and hand or right brain would aid in long putts.

Dr. Goodheart, in the 1979 Applied Kinesiology Manual, described how an individual who was paralyzed from the waist down was able to lift his right leg by multiplying; and, therefore, a system was developed where we can "train the brain to reservice the area that had been previously damaged if connections are possible".⁽²⁾

Since humming was another right brain intuitive factor, why not add humming to the left arm putting stroke. A problem arose in that humming seemed to interfere with accuracy until I remembered the experiment performed by Kinburne and Cook⁽³⁾ that was described in the 1978 paper on Split-Brain Putting.⁽¹⁾ When a right handed individual balanced a piece of wood on the index finger of his right hand his ability to balance decreased when he spoke while balancing, because speaking was an additional task that caused the right hand to function

Hammer
Split-Brain Putting
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less efficiently.

Experiment: Eight subjects were used to putt a ball ten feet on a level path into three golf holes. They were instructed to putt using their own method ten times into each hole; then ten times using the left arm and hand with continuous humming; then putting using the left arm and hand with discontinued humming after the backswing. The left arm was made dominant with a cross grip so the left hand was below the right hand. All eight subjects were right handed. In order to prevent the practice effect, the three methods were used with a different order of the three golf holes.

The discontinued humming method was significantly more accurate (3.5 hole in ones compared with one hole in one as used with the other two methods).

The accuracy of putting improved if humming was performed during the backswing and immediately stopped as the club was brought forward. Possibly stimulating the brain before the body performs a task can improve function if using simultaneously active one sided brain functions interfere.

Hammer
Solit-Brain Putting
Page 3

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THERAPY LOCALIZATIONOPERATOR VS. PATIENT CONTACT

Christopher L. Harrison, D.C.

Abstract: Controversy has existed within the field of Applied Kinesiology as to the merits of Therapy Localization with patient contact and with operator contact. The purpose of this research was to ascertain if there would be a difference between Therapy Localization with patient or operator contact.

METHOD: 233 patients were tested with therapy localization. Prior to testing each subject was thoroughly checked for switching and ionization. Corrections were made when these entities were found to be positive. On each test both operator and patient contacts were made. The sequence of testing was changed so that operator contact was tested first one time and patient contact tested first another time. The same muscle indicator was used for each individual test to avoid variability.

RESULTS: Test results are displayed in the following chart and the breakdown of target areas is self explanatory.

DISCUSSION: From the results shown, it appears as though operator contact is as valid and effective as patient contact. Switching and ionization imbalances did appear to make differences in the ratio of patient contact and operator contact findings.

Therapy Localization of Vertebra:

Positive T.L. with patient contact.....	213
Positive T.L. with operator contact.....	213

Therapy Localization of Acupuncture alarm points:

Positive T.L. with patient contact.....	14
Positive T.L. with patient contact.....	14

Therapy Localization of a lower extremity:

Positive T.L. with patient contact.....	1
Positive T.L. with operator contact.....	1

Therapy Localization of Cranials:

Positive T.L. with patient contact.....	4
Positive T.L. with operator contact.....	4

Therapy Localization of Sacro-Iliac Joint:

Positive T.L. with patient contact.....	50
Positive T.L. with operator contact.....	50

Therapy Localization of Temporo Mandibular Joint:

Positive T.L. with patient contact.....	7
Positive T.L. with operator contact.....	7

Therapy Localization of an organ (i.e. palm over liver, stomach etc.):

Positive T.L. with patient contact.....	3
Positive T.L. with operator contact	3

TOTALS

Total number of patient participation.....	233
Total number of patient therapy localization tests.....	292
Total number of operator therapy localization tests.....	292
Total number of positive patient therapy localization tests.....	292
Total number of positive doctor therapy localization tests.....	292
Ratio of patient contact T.L. to operator contact T.L.....	100%

I wish to thank our Chiropractic Technician, Maria Torregrosa, for her invaluable assistance in this project.

Christopher L. Harrison, D.C.
Palo Alto, California
2-15-80

STIMULI AND THE INCREASE IN CEREBRAL BLOOD FLOW

By Hannes L. Hendrickson, BChE, P.E., D.C.

ABSTRACT: Investigations by ICAK have shown that counting aloud or singing aloud affect the right and left sides of the body respectively. Recent research has also disclosed that counting aloud or using complex voluntary movements etc. produce a marked increase in cerebral blood flow in an area called the supplementary motor area (SMA) of the brain.

The brain is a a huge cryptogram which is begrudgingly giving forth its knowledge. Man is, however, slowly chipping away at its contents. Much valuable knowledge is uncovered yearly.

Goodheart (1) (2) demonstrated that using right brain activity such as singing aloud produced effects upon the left side of the body. Counting aloud, on the other hand, produced effects upon the right side of the body. Additional research on these brain activities have found them to be valuable adjuncts in unmasking hidden faults, etc.

Counting aloud as well as the use of complex voluntary movements etc., have also influenced the increase in cerebral blood flow. Orgogozo (3) showed in his experiments that there was an increase in the cerebral blood flow in the supplementary motor area(SMA) of the brain. This was in addition to the normal blood flow in the Rolandic sensorimotor area where this occurs during any kind of movement.

This supplementary motor area (SMA) in man and animals is located immediately anterior to the primary sensorimotor area for the foot and leg on the medial aspect of both cerebral hemispheres. (Figure 1). See also reference (4).

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This SMA was noted in cortical stimulation studies by Penfield (5). Originally SMA was restricted to tonic postural adjustments prior to movements but the authors consider the SMA as a supramotor area--of higher hierarchical order than the primary motor Rolandic areas. Some of the functions according to the researchers are: (of the SMA) a. important role in initiation as well as regulation of some voluntary movements b. contribute by controlling the establishment of new motor programs and possibly the execution of established subroutines based on external and internal inputs c. matches external orders with internal needs etc....

The authors state that their studies do not support the posture idea for sustained contractions of any part of the body do not produce an increased CBF in the SMA.

Using a special gamma-ray camera, the cerebral blood flow (CBF) was recorded in 254 small adjacent cortical areas. The researchers found that the following movements produced a noticeable increase in the CBF in the SMA: complex foot movements, sequential finger movements, counting aloud, eye movements, and sequential mouth movements. Silent counting, with the lips and tongue still, produced no activation of the SMA.

A very interesting observation, and to corroborate Goodheart's studies, was that activation of the SMA was noticed to extend more anteriorly, especially in the left hemisphere when a patient counted loudly (a left brain activity).

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CONCLUSIONS:

1. The data presented herein should no doubt open additional doors to research; and/or, provide an additional understanding in getting patients well.

2. Additional substantiation on the use of left brain activity has been presented.

3. Due credit is given to all who may have contributed to the material in this paper.

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 Page 4

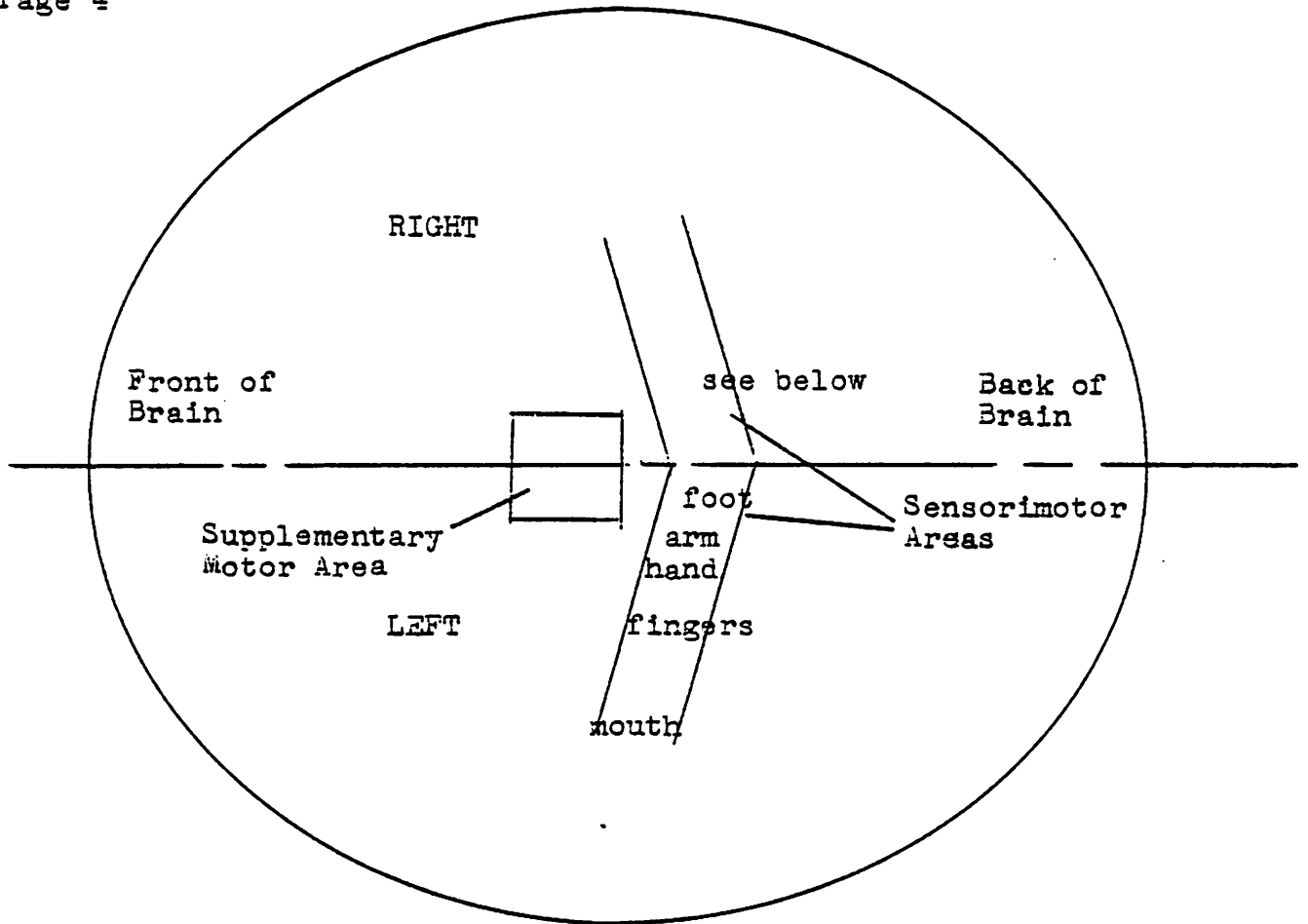


Figure 1 Drawing showing a representation of the SMA area as developed by Penfield as well as the sensorimotor area of the brain. This is a view looking down on the brain. This drawing is not to scale and it is an approximation.

STIMULI AND THE INCREASE....

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HOW VARIOUS STIMULI AFFECT THE MULTIPLE REPRESENTATIONS
OF THE BODY WITHIN THE PRIMARY SOMATOSENSORY CORTEX OF PRIMATES

By Hannes L. Hendrickson, BChE, P.E., D.C.

ABSTRACT: Recent research reveals that the body is represented at least three times, with the possibility of a fourth, within the primary somatosensory cortex of primates. This same research showed also that each of these bodies responded to its own particular stimuli.

INTRODUCTION: Numerous papers, lectures, etc. by members of ICAK, and others, have demonstrated the need to apply various stimuli to the body to research, unmask, magnify, to bring to normalcy etc., the responses of nerve fibers, nerve cells, muscles, etc. A tabulation of a few stimuli used in recent papers etc. are as follows:

Method of Activation

Flexion, extension, rotation, tilt of head (1), (2), (3), (4).

Scratching, humming, spray, pinch, stretching (8, 12)

The list appears endless and includes: tapping, light and heavy pressure, rubbing, counting, light, darkness, magnetic, electrical, needling, heat, cold, laser, various frequencies, looking, imagination, etc.

An important question arises: Why all of these stimuli?

RESEARCH: Some of these methods of activation appear to be answered in the recent research by Dr. Jon E. Kaas and his colleagues (5). Writing in "Science", Dr. Kaas made a study of the cortical response of monkeys to stimuli applied to the fingers etc. Using micro-electrodes Dr. Kaas was able to pin point in the primary somatosensory cortex of primates the responses of stimuli applied to the body.

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The most important finding of Dr. Kaas was the presence of three body representations, with a possibility of a fourth, in the primary somatosensory cortex.

Figure 1, which is reproduced through the permission of Dr Kaas, and copyrighted by the American Association for the Advancement of Science 1979, Science, Vol 204, 4 May 1979, pages 521-523, shows the areas 3a, 3b, 1, 2, where the research was done. These areas were designated by Brodmann (5, ref 3). Also refer to Chusid (6).

Dr. Kaas reported that earlier investigators had noted that area 3b responded to cutaneous receptors using light touch. Area 1 was activated by mixed cutaneous and deep receptors and area 2 showed the response to deep receptor input.

(Dr. Kaas and his colleagues titles are as follows:

Dr. Jon H. Kaas, Professor of Psychology, Associate Professor of Anatomy, Vanderbilt University, Nashville, Tennessee 37240.

Dr. Randall J. Nelson, Department of Anatomy, Vanderbilt University

Dr. Mriganka Sur, Department of Electrical Engineering, Vanderbilt University

Dr. Chia-Sheng Lin, Department of Anatomy, Vanderbilt, University

Dr. Michael M. Merzenich, Coleman Laboratory, University of California, Sanfrancisco 94143.)

Dr. Kaas noted in his experiments the stimuli and the areas involved as follows: Area 3b and 1--low threshold cutaneous stimulation. Area 3a--deep pressure, hard taps or body movement. Area 2--deep stimuli and cutaneous as well. 3b Major input to this area was light touch.

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Based upon more than 7,900 recording sites the researchers state: "Our experiments unequivocally support the multiple representations hypothesis". The researchers conclude by saying: "There is little doubt that the four fields 3a, 3b, 1, and 2 and not SI are the subdivisions of functional significance of the parietal somatosensory cortex of monkeys, and perhaps of higher primates". The designation SI represents a single body representation in the cortex.

Figure 2--Is a coronal section through cerebrum showing the areas where the research was conducted and the stimuli used. This Figure is an approximation and is considerably enlarged.

CONCLUSIONS:

1. With the average brain having 10,000,000,000 individual neurons (7) and since each neuron can interact with other neurons, there is estimated to be 10 with 800 noughts interconnections (7) in the brain. The researchers show that there are four body representations--Why not more body representations? The multiplicity of stimulations and the research presented point towards this direction.

2. It is also concluded that one should use as many stimuli as possible to bring forth needed results.

3. The question: Why shouldn't there also be multiple representation in the motor, visual and other neuron centers? Dr. Goodheart(8,12) demonstrated that humming affected the left side of the body while counting affected the right side.

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Dr. Dale (9), (10) illustrated the multiplicity of micro-acupuncture systems represented on the body's surface. These systems are for example on the sole of the feet, face, nose, hand, eye, tongue, etc. Dr. Nogier demonstrated the body's representation in the ear (11). The Chinese developed the modern day meridian acupuncture system. All of these studies point toward the multiplicity theory.

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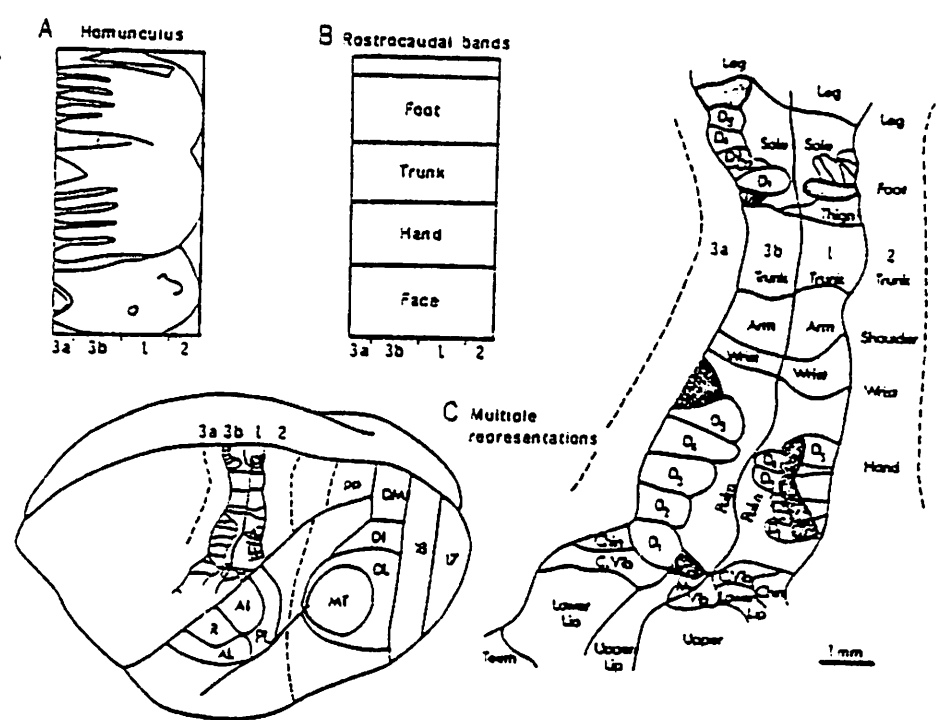


Fig. 1. Three conceptions of the organization of postcentral parietal somatosensory cortex (SI). (A) A distorted body figure (homunculus) over the four architectonic fields. In this view a single topographic body representation constitutes SI. (B) The SI as rostrocaudal bands. Major body parts are represented in all architectonic fields. (C) Multiple representations of the body within the cortex formerly designated as SI. Each architectonic field contains a representation. The organizations of the two cutaneous representations, SI proper (3b) and the posterior cutaneous field (1), and some of the organizations of the area 2 representation are shown for the owl monkey (*Aotus*). Sectors within each map limit the representations of body parts. The digits of the foot (upper) and hand (lower) are numbered, and the dorsal hairy surfaces are shaded. Chin and mandibular vibrissae are indicated. The positions of the fields on the brain are shown on the lower left. Visual and auditory areas are also shown (4).

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(Figure 1, reproduced through the permission of Dr. Jon Kass and copyrighted by the American Association for the Advancement of Science 1979, Science, Vol 204, 4 May 1979, pages 521-523)

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Page 6

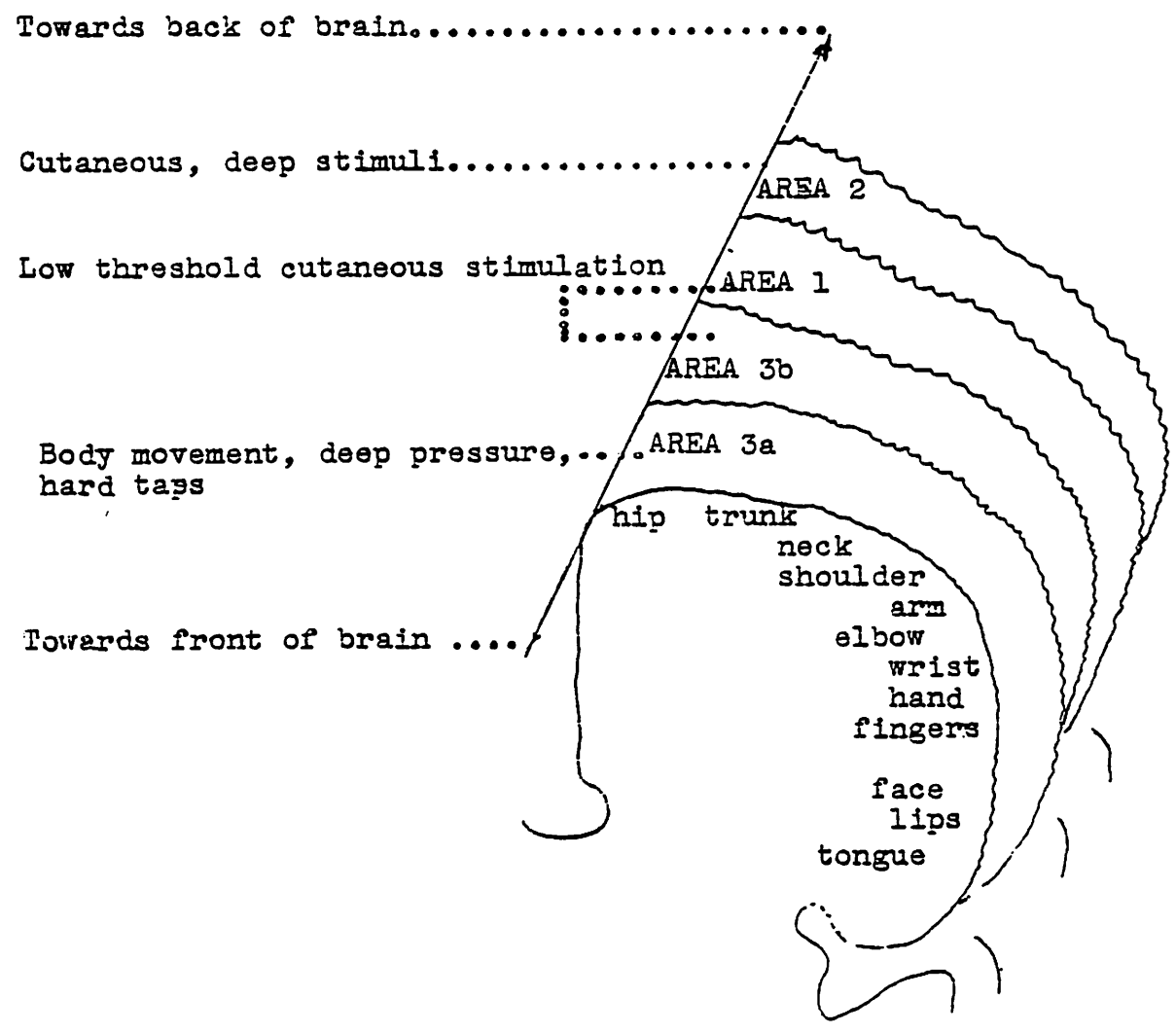


Figure 2--Three dimensional section through cerebrum showing functional localization of primary sensory cortical area. Areas researched by Dr. Kaas are 3a, 3b, 1, 2, with the type of stimuli used. Figure 2 is an approximation and is enlarged considerably.

HOW VARIOUS STIMULI....
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MINI TRAMPOLINE AND THE REOCCURRING CATEGORY II

By CONRAD A. HENRICH, D.C.

ABSTRACT: Use of a mini trampoline may be advantageous for cardio vascular exercise but detrimental to patients with sacroiliac injuries along with foot pronation that shows need for correction.

CRITERIA: Fifteen male patients were selected because of the following common factors:

1. Lower back problems, mild to moderate sacroiliac sprain/strain, Category II.
2. Interested in physical fitness.
3. Good response to manipulative adjustments, but with re-occurring pattern.
4. Need for orthotics due to foot pronation (Spinal Pelvic Stabilizers, 3/4 length, regular leather), to stabilize Category II.

The use of the orthotics plus manipulative correction of the sacroiliac problem (Category II) enabled each of these individuals to return to their normal exercise such as, racquet ball, jogging, tennis, etc.

TEST

- PROCEDURE:**
1. Asymptomatic patient wearing his athletic shoes and Spinal Pelvic Stabilizers.
 2. Therapy Localize to the Category II on the side of the individual's problem, in standing posture, using the opposite

HENRICH - Mini Trampoline and the Reoccurring Category II

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mid deltoid as a test muscle. Test negative - all fifteen subjects.

3. Have subjects run in place thirty seconds, retest, all fifteen negative.
4. Have subjects run on mini trampoline thirty seconds, retest. Nine out of fifteen showed positive Therapy Localization for a Category II.

CONCLUSION: Due to the construction of the mini trampoline being supported on the outer edge, it creates a concave surface to exercise on, causing a medial shifting of the talus, depending on the severity of foot pronation. In general the subjects that displayed the greatest amount of pronation were the ones that demonstrated positive Therapy Localization to a Category II after jogging on the mini trampoline.

THE USEFULNESS OF THE EIGHT STRANGE FLOWS IN BALANCING BODY ENERGY

By

Katharine Ayers Hovey, D.C.

ABSTRACT: A brief discussion of the Eight Strange Flows, their associated points, their function and their importance in balancing body energies.

The Eight Strange Flows are channels which enable the body to regulate excesses or deficiencies of chi. They have a potent balancing effect on overall body chi and are like reservoirs of energy that connect the twelve organ meridians. Teeguarden and Teeguarden (1978, p. 7) say that these channels can be utilized to "rebalance and re-energize the whole body-mind." If the energy in one of the twelve organ meridians is excessive, the excess energy flows into a Strange Flow where it may be stored or transferred to a deficient meridian. Due to the stresses of modern day living, tension may accumulate around one, several or many of the sixty points associated with the Strange Flows. This hampers the flow of energy between the Strange Flows and the twelve organ meridians. Releasing the tension of the points associated with the Strange Flows makes energy available to the organ meridian system with the potential of increasing vitality and health. (Teeguarden, I., 1978, pp.52-55)

The Eight Strange Flows are:

1. The Great Regulator Channel which consists of the Yin and Yang Wei Mo.

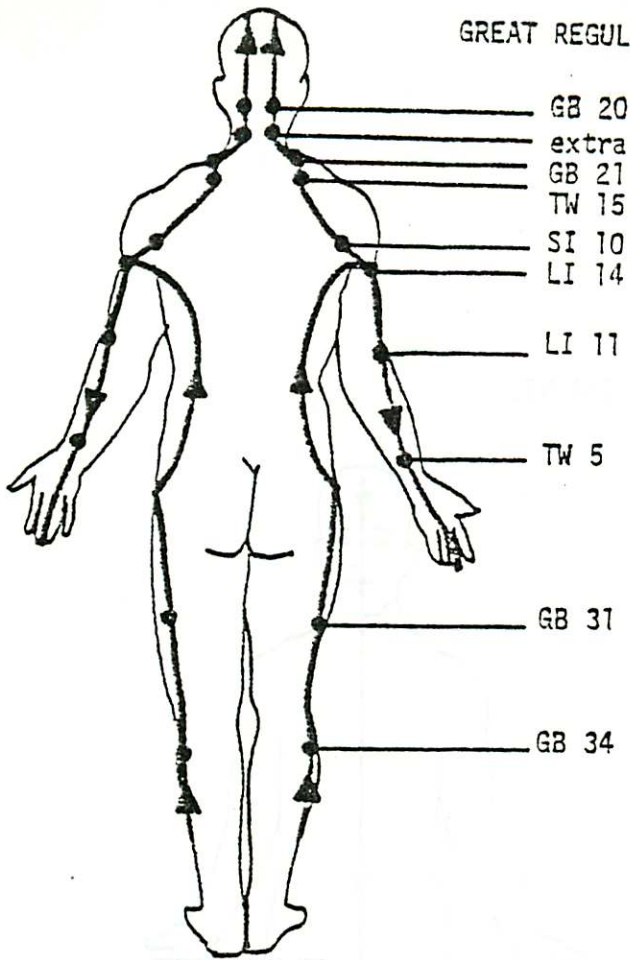
2. The Great Bridge Channel which consists of the Yin and Yang Chiao Mo.
3. The Great Central Channel which consists of the Conception Vessel and the Governing Vessel.
4. Penetrating (yin) and Belt (yang) Channels.

These flows are illustrated with their thirty paired points on pages three, four and five.

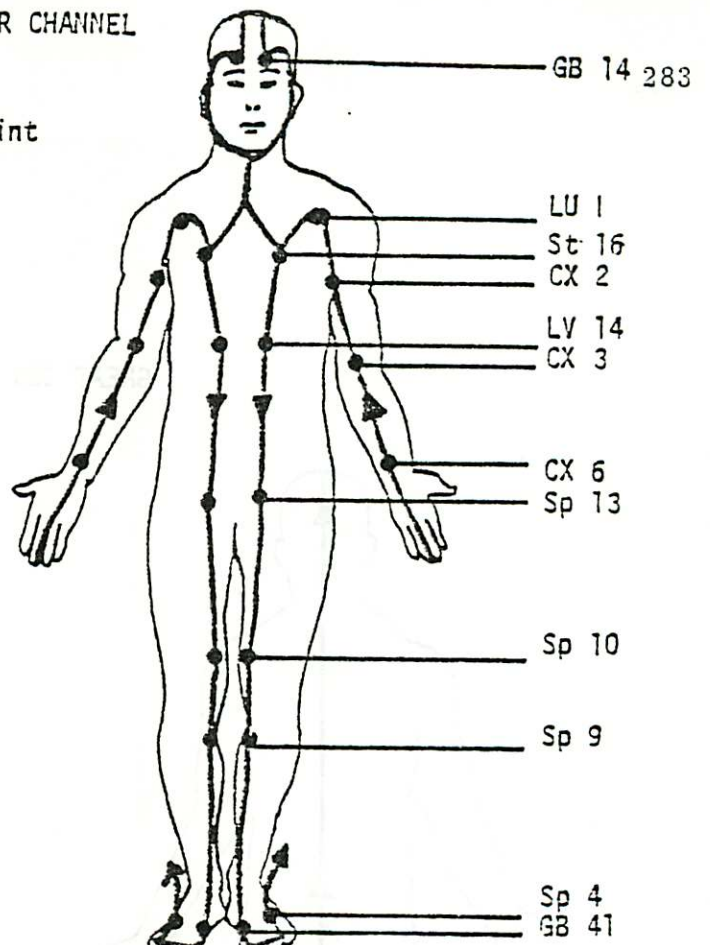
The Great Regulator Channel links, regulates and maintains harmonious flow among the twelve organ meridians. The Yin Wei Mo, located on the front of the body, connects all the yin meridians, and Yang Wei Mo, located on the back of the body, links all the yang meridians. The Yin Regulator controls the nourishing energy of the body, regulates the blood and the interior regions of the body. The Yang Regulator controls the defense energy of the body and regulates the resistance and the exterior regions of the body. (Teegarden, I., 1978, p.56) Chang (1976, p.46) says that the Yin Wei Mo relates to the organs of the abdominal cavity and that the Yang Wei Mo relates to the ear.

The Great Bridge Channel regulates the amount of energy remaining in and being used by the meridians and maintains the appropriate balance of yin and yang energy in the meridians. It acts as a bridge between the stored energy of the body and those areas or flows deficient in chi. The portion of the Great Bridge Channel in the front of the body is yin; the part in the back is yang. If the energy in the Yin Chiao Mo is deficient, the

GREAT REGULATOR CHANNEL

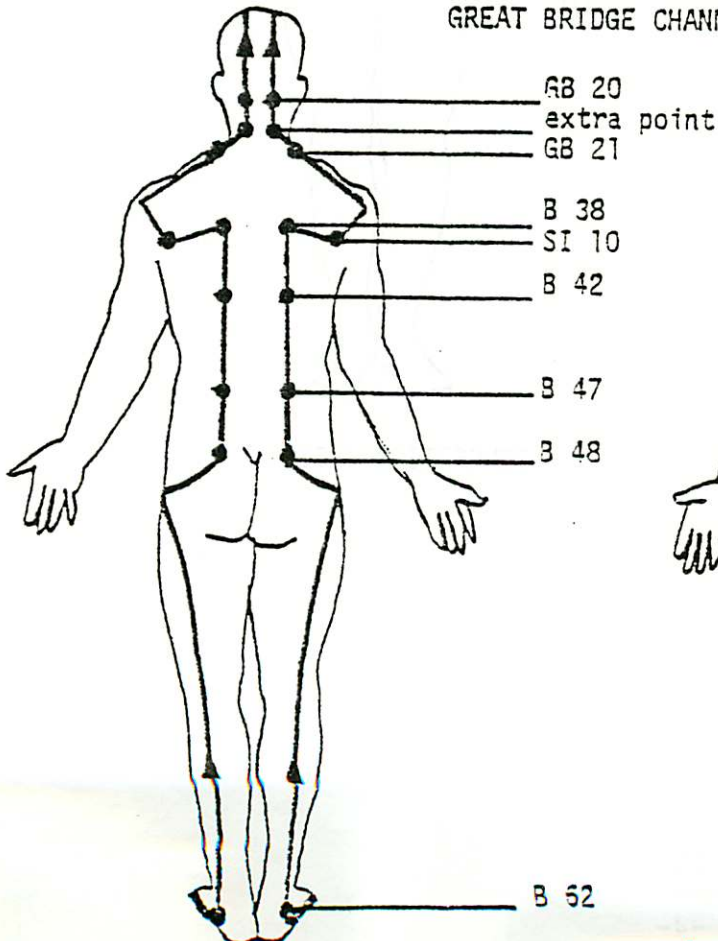


YANG WEI MO

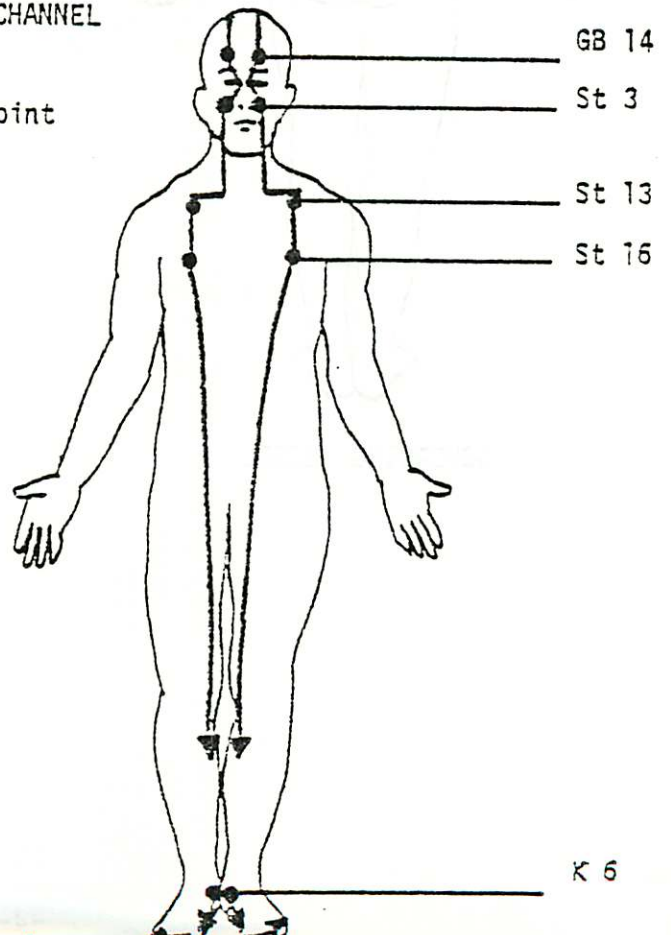


YIN WEI MO

GREAT BRIDGE CHANNEL

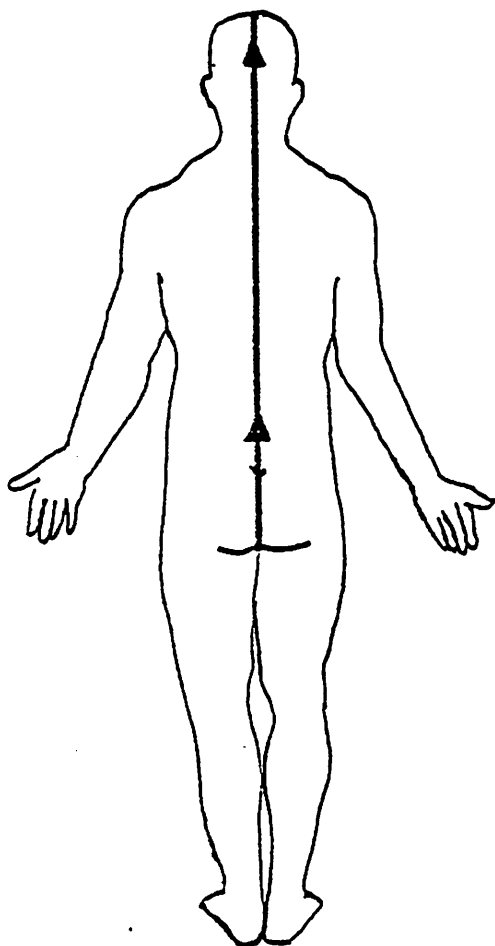


YANG CHIAO MO

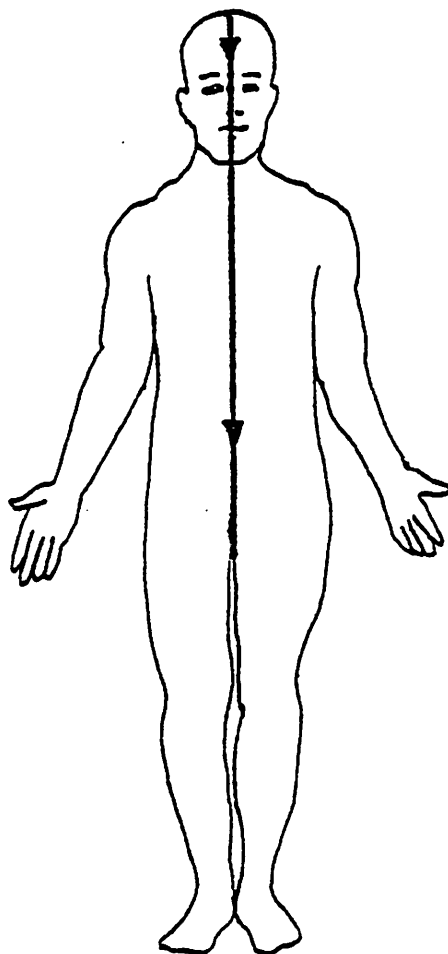


YIN CHIAO MO

GREAT CENTRAL CHANNEL

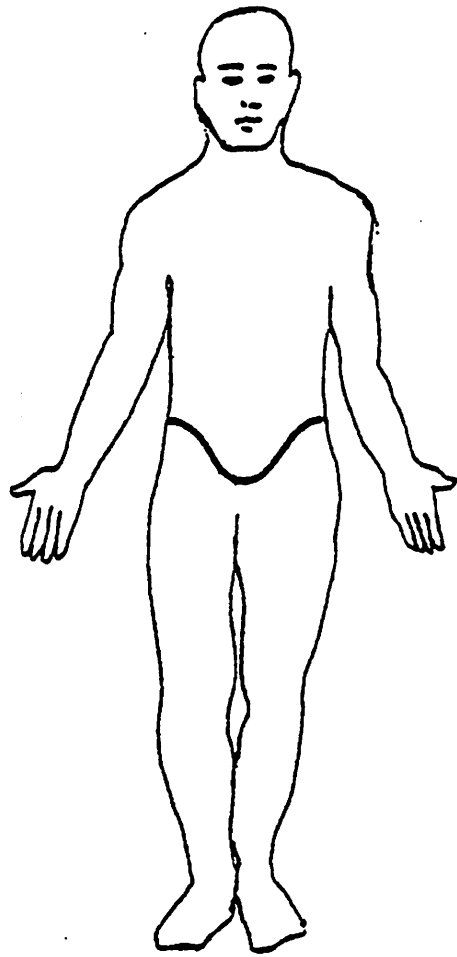
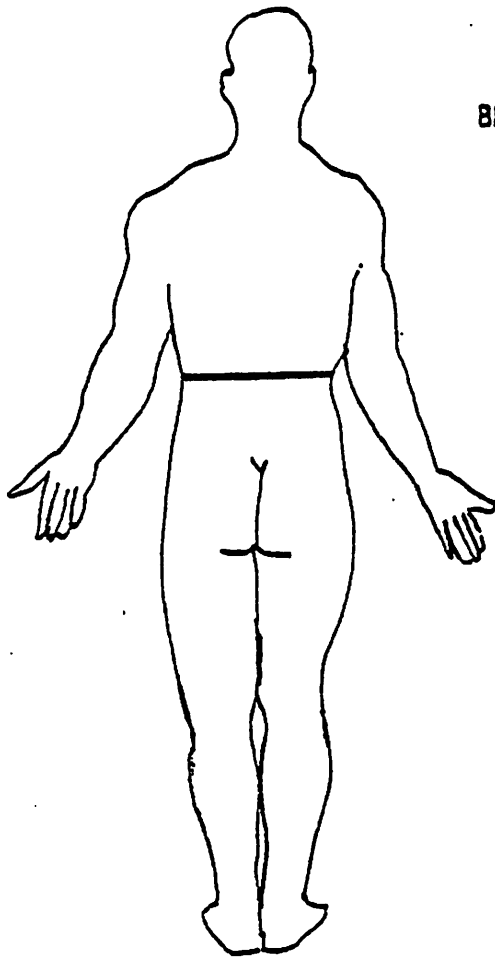


GOVERNING VESSEL

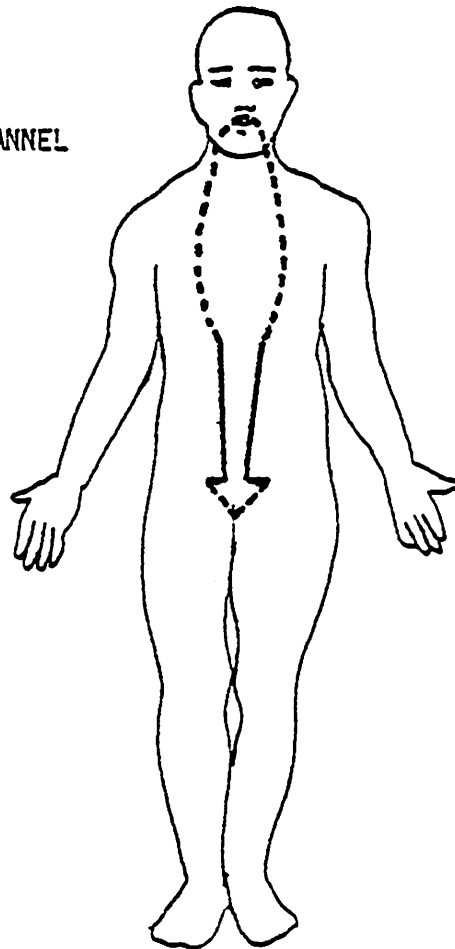


CONCEPTION VESSEL

BELT CHANNEL



PENETRATING CHANNEL



energy in the Yang Chiao Mo is abundant and there may be excessive activity and insomnia. When the energy in the Yang Chiao Mo is deficient, the energy in the Yin Chiao Mo is abundant and there may be fatigue and drowsiness, (Teegarden, I., 1978, p.59)

According to Chang (1976, p.45), the Yin Chiao Mo relates to the ears, eyes, brain, pharynx and larynx and the Yang Chiao Mo relates to the ears, eyes and brain.

The Great Central Channel, consisting of the Conception Vessel and the Governing Vessel, is the only channel that has its own acupoints. The other six channels derive their acupoints from the organ meridians. The Central Channel, also called the "Microcosmic Orbit," is described as "the most primal of all the energy flows" and "is considered to be the ruling energy channel of the body and spirit." (Teegarden, I., 1978, p.58) The Conception Vessel, also called the "Great Mother Flow," is the strongest of all the yin energy flows. The Governing Vessel, also called the "Great Father Flow," is the strongest of all the yang energy flows. The organ meridians release energy from and give excess energy to the Great Central Channel. The yin organ meridians connect with the Conception Vessel and the yang organ meridians connect with the Governing Vessel. This connection facilitates a flow of energy between the right and left sides of the body. The Conception Vessel influences the lower abdomen, the reproductive functions and the state of spiritual peace or unrest. The Governing Vessel influences the spine, the native or pre-natal energy and the state of nervous stability or

instability. Unlike the other Strange Flows, the Central Channel has a continuous flow of energy as do the twelve organ meridians. (Teegarden, I., 1978, pp.59-61) Chang (1976, p.44) says that the Conception Vessel relates to the uterus and the eyes and that the Governing Vessel relates to the kidneys, uterus, spinal cord and brain.

The Penetrating Channel is called "the sea of blood" and acts as an accessory to the Kidney meridian. It stores the "true chi" and regulates pre- and postnatal development. Together with the Governing and Conception Vessels, this Channel connects the chakras and radiates prana throughout the body, (Teegarden, I. and Teegarden, R., 1978, p.27) According to Chang (1976, p.44), this channel relates to the uterus, spinal cord, kidneys and eyes.

The Belt Channel is the only vessel that flows horizontally. It originates at the second lumbar vertebra, encircles the waist and descends to the area of the torso just superior to the pubic bone. It connects and balances the energy of the meridians flowing through the back, front and sides of the torso and regulates the abdominal region. (Teegarden, I., 1978, p.62)

Since treatment of any of the basic sixty points related to the Eight Strange Flows does not have a specific stimulating or sedating effect but rather a balancing effect on the body, they may be safely combined with associated points, source points, luo points and alarm points, which also have a balancing effect. Especially important points related to the Eight Strange Flows

are master points and balancing points. Master points "balances the energy condition of the individual channel, while coupled points balance the energy between the channel and its partner." (Teeguarden, I. and Teeguarden R., 1978, p.8) Below is a summary of master and coupled points for the Eight Strange Flows. (Teeguarden, I. and Teeguarden, R., 1978, pp.10,14,20,28)

	Master Point	Coupled Point
Yin Great Regulator	CX6	Sp4
Yang Great Regulator	TW5	GB41
Yin Great Bridge	K6	B62
Yang Great Bridge	B62	K6
Conception Vessel	K6	
Governing Vessel	B62	
Penetrating Channel (yin)	Sp4	CX6
Belt Channel (yang)	GB41	TW5

Use of these points has a potent balancing effect on the body energy. An effective method of treatment is to open the Strange Flows by utilizing the above points and the appropriate points along the Eight Strange Flows as they relate to the twelve organ meridians, for instance TW5 on the Yang Great Regulator Channel relates to the Triple warmer meridian. The sphere of influence of these points is given in most standard texts on acupuncture. A brief description of their sphere of influence is given at the end of this paper.

Ron Teeguarden (1980) states that pressure should be used on these points until it "hurts good" which causes the release of

enkephalins and endorphins. These Eight Strange Flows are also called "Psychic Channels" which Iona Teegarden (1978, p.54) says are affected by the hands and by meditation. She stresses the importance of the individual giving the treatment being centered and channeling energy, by breathing energy or chi into the hara (area of the abdomen just below the umbilicus) and when energy has accumulated to channel it through the heart center and out the hands.

Iona and Ron Teegarden have developed a comprehensive and highly effective way of balancing the body energies through utilizing the sixty points of Eight Strange Flows and the traditional five element points of acupressure. They call this system Jin Shin Do, meaning "the Way of the Compassionate Spirit." It has evolved from a folk-art called Jin Shin Jitsu which was originated by Jiro Murai and developed by his students Mary Iino Burmeister and Dr. Haruki Kato. The Teegardens and Dr. Kato correlated Jin Shin Jitsu with traditional acupuncture from which Jin Shin Do was created. For those interested in persuing this system in greater depth, inquiries can be made to The Acupressure Workshop. The address and telephone number is given in the bibliography. To avoid reactions, it is advisable to use the sequences recommended by the Teegardens until you feel comfortable about improvising your own.

THIRTY POINTS OF THE EIGHT STRANGE FLOWS

POINT	RELATED FUNCTIONS AND CONDITIONS*
1. GB 14	Ocular affections, facial tension, stiff neck, spiritual unrest, fear
2. SE 3	Sinus problems, stuffy nose, toothache, facial neuralgia or paralysis, glaucoma, myopia
3. St 13	Shortness of breath, spasm of the diaphragm, lung and bronchial conditions, spasm of the chest muscles, release of blocked emotions
4. St 16	Lung problems, intercostal neuralgia, release of diaphragm, shortness of breath, heartburn, flatulence, melancholy feelings, promotion of an optimistic spirit
5. LV 14	Release of diaphragm and abdominal tension, Belching, hiccoughs, snoring, digestive problems related to liver, gall bladder, spleen and pancreas
6. Sp 13	Influences tension or relaxation of abdomen, groin, thigh and sexual organs. Menstrual cramps, indigestion, constipation, intestinal weakness or discomfort
7. Sp 10	Regulation of menstruation, menstrual cramps, blood conditions, itching and indigestion
3. Sp 9	Regulation of water balance, menstrual cycle, pain in knees, legs or loins, low back pain, abdominal pain and indigestion
9. K 6	A tonic point which broadens adaptability to stress, influences the heels, female sexual organs and kidneys, promotes refreshing sleep, dispels fatigue of the extremities and sadness. Helps to balance Conception Vessel and Yin Great Bridge.

*Summary of points from Teeguarden, I., 1973, pp.66-78 and notes from lectures by Wu Wei Ping. -10-

POINT	RELATED FUNCTIONS AND CONDITIONS
10. Sp4	Influences circulation, especially of the feet. Abdominal and stomach tensions, hypochondria. Helps to balance yin Great Regulator and Penetrating Channel.
11. GB41	Influences ankles, feet, lower legs. Water retention, ability to make decisions, headache, rheumatism and perspiration problems. Helps to balance yang Great Regulator and Belt Channels.
12. B62	Headache, bladder problems, pain control, hypertension, vertigo, insomnia. Helps to balance the yang Bridge Channel and the Governing Vessel.
13. GB34	Muscular soreness, headaches, constipation, low back tension, knee problems, fear and extreme fright.
14. GB31	Mental and physical detoxification. Release of outer thighs, knees, legs and yang points along the Strange Flows. Low back problems and weakness of the legs.
15. B 48	Releases the pelvis and pelvic organs, abdominal problems, constipation, hemorrhoids, prostate or urinary problems.
16. B 47	Strengthening of the entire body. Abdominal, genital, prostate and urinary problems.
17. B 42	Related to liver, back and diaphragm. Poor digestion, fainting and fullness in chest.
18. B 38	Relates to heart, lungs, circulation, respiration, all emotions. Strengthening of the entire body. All chronic conditions. Fatigue, depression, coughing, hyperacidity, difficult breathing.
19. TW 15	Increases resistance, reduces fever. Releases shoulders, scapulae, neck and arms. Nervous tension and hypertension.

POINT

RELATED FUNCTIONS AND CONDITIONS

-
20. GB 21
Tenseness at this point relates to anxiety, tension and fatigue. Release of irritability, frustration, nervous conditions and sexual organs. Headache, cerebral congestion and anemia, fatigue, throat problems, neck spasm, shoulder pain, vertigo. Release is important for the flow of energy of the Strange Flows into neck and head.
21. Extra point located between C3-4 at approximately 2 finger widths from center of spine.
Release of neck, shoulder, arm, throat. Voice problems, headaches, frustration of creativity.
22. GB20
Influences eyes, nose, mouth, brain. Releases neck and head tension. Colds, flu, vertigo, headaches, insomnia, nervous problems. Important to Great Regulator and Great Bridge Channels.
23. SI 10
Release of shoulder, scapula and neck. Hypertension.
24. LI 14
Influences arms, shoulders, neck, and large intestine. Throat, mouth and teeth problems.
25. LI 11
Influences arms, elbows, scapulae. Increases immunity. Fever, hypertension, cerebral congestion, constipation, skin problems, depression.
26. TW 5
Influences neck, arms, elbows, wrists and fingers. Colds, flu, headaches, deafness, dermatitis, rheumatism, loss of vitality, disturbance of heat balance, ocular affections and fear. Helps release yang Great Regulator.
27. C 6
Release of arm, medial arm and elbow. Myocarditis, vertigo, difficult breathing, stomach and throat problems, vomiting, loss of memory for words, laziness and lassitude, shock, fear. Helps release yin Great Regulator.

POINT

RELATED FUNCTIONS AND CONDITIONS*

28. CS 3

Release of arm, elbow, shoulder. Heart and lung problems, vomiting, dryness in mouth, great thirst, indecision, nervous crisis, over emotional.

29. CX 2

Release of medial arm, upper back. Lung problems, fear of wind and cold, palpitations from fear.

30. LU 1

Release of chest and shoulder. Lung and heart problems, dyspnea, asthma, tonsillitis, skin problems. Feelings of oppression, holding on to persons, objects, feelings.

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Therapy Localization and Blood Pressure

Validation and Addition

By

John T. Hughes, D.C.

Abstract: Therapy Localization for blood pressure as presented by Dr. John Campbell seems to be valid for both hypertension and hypotension.

" Therapy Localization and Blood Pressure " by John Campbell, D.C. appeared in the 1977, Winter edition of " Collected Papers of the Members of the ICAK ". Dr. Goodheart gave credence to Dr. Campbell's idea in tape number fifty-five, side two.

The procedure is to therapy localize to the carotid pulse. If this weakens a previously strong muscle the test is positive, indicating abnormal blood pressure. Next, the patient is instructed to maintain the contact on the carotid pulse while using the other hand to TL the cervical region or other areas in an effort to find a point which, when therapy localized, will abolish the TL to the carotid pulse.

Correction of this second, simultaneous, TL area should abolish the TL to the carotid pulse and result in a change of the blood pressure reading toward normal.

The hyoid bone should be checked and correction made, if needed, before the TL to the carotid pulse is done.

We found, as did Dr. Campbell, that some patients who have had their blood pressure "controlled" by medication will still show a positive TL to the carotid. This would indicate that the condition is controlled but not corrected.

We were well along in our validation study before we started to check patients with low blood pressure readings. We had very little time left to follow this course of investigation before our paper was due to be sent to Dr. Deal. These readings were not taken by me but by an assistant who was not aware of what we were doing until we were well along in the program.

The following blood pressure readings were recorded before and immediately after the adjustment was made. They were checked and double checked for accuracy:

<u>Before</u>	<u>After</u>	<u>Before</u>	<u>After</u>
104/60	118/80	100/62	108/72
100/60	114/72	98/62	112/72
100/64	120/78	100/62	110/64
110/68	110/68		

We know that we have been making corrections on blood pressure problems with our regular AK technics. Occasionally we find an obstinate case that tends to remain high or low after the usual corrections have been made.

This procedure seems to provide a solution for many of these problem cases.

Conclusion : Our study supported Dr. Campbell's findings; however we suggest you also check patients with low blood pressure problems.

USEFULLNESS OF OFFICE URINALYSIS PROCEDURES

by A. P. Karpowicz, D.C., Diplomate of ICAK

ABSTRACT: The purpose of this research project was to determine if regular urinalysis on patients was warranted. The Combistix Reagent Strips by Ames was used to check for the presence of abnormal glucose, protein, and PH findings in the patient's urine. Dr. Goodheart's work on PH prompted me to do this project after reading his article in 1979 research manual.

TEST PROCEDURE: 100 patients were tested, taking a fresh urine sample while they were in our office. Of these, 11 showed some protein in their urine, 5 exhibited glucose, and a resounding 88 demonstrated an abnormal PH. The eleven patients showing protein were all a trace except one. The five patients exhibited a moderate amount of glucose in the urine. Of the 88 abnormal patient ph's only one patient was alkaline -- all the rest had an acid PH1.

RECOMMENDATION: I tested the eleven positive protein patients for pancreas involvement and a lack of HCL using the latissimus dorsi and bi-lateral pectoralis major as my test muscles, respectively. Only one patient showed a need for pancreas extract and Betaine HCL. All 5 patients showing glucose in the urine had either latissimus dorsi and/or sartorius muscle weaknesses. I treated these and suggested a diet with refined white sugar and flour products completely eliminated. The majority of patients with an acid PH1, I just suggested a dietary change. Recommended was a daily intake of green, leafy vegetables such as spinach, kale, broccoli, brussels sprouts, etc. and elimination of all junk food from their diet. With those patients whose urine was 5 or 5+ we gave them calcium lactate from Standard Process or Cal-Acid from Sivad; both worked equally well. Out of twelve such patients. 10 showed improvement and two none.

CONCLUSION: In-office urinalysis is a useful tool for the Chiropractic Applied Kinesiologist. Abnormal results lead us in the direction of care needed to give total health care and subsequent normal health and well-being to our patients. As a result of these findings, I will be using the urine tests that include Ketones and occult blood. By using every tool at our disposal, we have an additional edge toward a successful handling of the case.

A CHIROPRACTOR'S TEN COMMANDMENTS FOR "LIFE"

J. Carl Keiser, D.C.

" A picture is worth a thousand words "

The exercise poster presented here before you is self-explanatory to all ICAK members. It is a composite of the author's practical experiences of many years of "Gut exercises" to maintain a healthy life while recovering from a severe basal skull fracture, near death, and partial paralysis. Over the years the members of ICAK have proven time and again the benefits of cross crawl and etc; and we all thank Dr. George Goodheart for it all. Life is motion.. so let's all keep moving.

For Extra copies: Write: Keep Smiling Gym
305 W. Reading Rd.,
Ephrata, Pa. 17522

DETERMINATION OF PROPER NUTRITIONAL SUPPLEMENTS
THROUGH INHALATION

by Guru Sahay Singh Khalsa, D. C.

ABSTRACT: We have found that a possible quicker method of determining the need for nutritional supplementation may be through inhalation of a substance and subsequent muscle testing.

In muscle testing patients for correct nutritional supplementation we often have to place two or three similar substances in a patient's mouth intervened by "washing out" the mouth for accuracy. For instance, the need for adrenal supplementation may be corrected by using the concentrate, the protomorphogen, or both. Dr. Wally Schmitt has indicated the only accurate way to know which substance or whether both substances are preferable is through accurate muscle testing.¹ The following method appears to shortcut this tedious process.

An exciting new approach to nutritional supplementation through inhalation therapy was presented to the ICAK at the Summer 1979 meeting by Dr. John Brimhall.² His studies had shown that inhalation of toxic metals (fumes) would cause a 50% absorption whereas ingestion of those same metals would cause only a 5 to 10% absorption. Dr. Brimhall then suggested inhalation of good substances (notably Bach Flower remedies and the homeopathic preparations of Nutri-Dyn and Sivad) in addition to ingestion as a supplemental therapy of much greater value. Many times in our office we were able to confirm Dr. Brimhall's hypothesis through the usual AK methods.

When faced with a choice between substances we determined a means of testing (sartorius for adrenals) and had the patient inhale the substance we wished to test. We did this by having them inhale directly from the container. Strengthening of the weak muscle in question showed need for the substance, continuing weakness showed no need. We then tested the other substances in question in the same manner. Then, to check the validity of the testing we placed first one and then the other substance in the mouth, retested the appropriate muscle, and have so far always gotten the same results

nasally and orally.

As with oral testing, temporal tap was used when more than one substance showed positive results (muscle strengthening) to determine which substance was most beneficial. This also correlated with distinctions between substances found in the mouth testing and temporal tapping.

Similarly to oral testing, where taste usually doesn't affect the demonstration for need of a substance, the smell of the substance did not seem to influence the testing. Sweet substances often kept weak muscles weak and terrible smelling concoctions often produced strengthening results.

We have used this method since June 1979 and have yet to be disappointed by the results both through careful muscle testing-oral rechecking and through clinical improvements when we have not rechecked the nasal findings orally.

Hopefully this will prove to shorten our already limited time so we may serve the public ever better and better.

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WARTS (Verrucae)
By K.E. Kirchner, D.C.

Due to working with the Chiropractic principal that allows the body to heal from within, I have for some time been fascinated by the seemingly healing miracles performed by the so called touch healers in our midst.

In my area, there are two people who have the ability to remove warts and other isolated exanthropic growths by touch. After seeing this happen several times over the years, and having used A-K in my practice for some time, I decided to combine the techniques of TL and EDT to see if results would follow under a disciplined regimen of treatment.

The first trial of this procedure started 2 years ago, involving a 15 year old female patient who had multiple warts of the hands and fingers. Her dermatologist had removed the growths 3 times, using various procedures, and each time they returned. I initiated the treatment procedure and within 3 days the patient had experienced complete remission of symptoms. Since that time, I have treated 34 patients with warts using this procedure with the following results.

20-Complete remission
8-20% to 50% remission
6-No results

The treatment used involves therapy localization using different fingers on each wart until positive therapy local-

ization occurs. Then using the same finger of the operators hand as a contact on the wart. The touch procedure I used involves a technique taught in the 1940s', 50's, 60s' by Dr. Charles Hays of California called EDT (Energy Distortion Technique). Basic to this technique is the understanding that each finger has a different polarity (see figure 1). This is significant because the operating finger has to correspond to the finger achieving a positive therapy localization on the patient. After using this procedure for some time I believe the rational for success involves a nutrification or rebalancing of a local imbalance of polarities.

The procedure we used is as follows:

1. TL the wart using different fingers of the patient to contact each wart until a positive therapy localization is found.
2. Using the appropriate matching finger of the operator hold until the positive therapy localization is nullified.
3. Recheck therapy localization using the different polarities as noted, and if positive therapy localization is noted, then repeat #2. Repeat therapy localization after correcting each positive therapy localization until none of the polarities will show positive therapy localization on any treated area.

Notes

1. If the patient feels heat under the contact, the prognosis is usually good.
2. If the remission is incomplete, then always recheck the different polarities using therapy localization. Many times

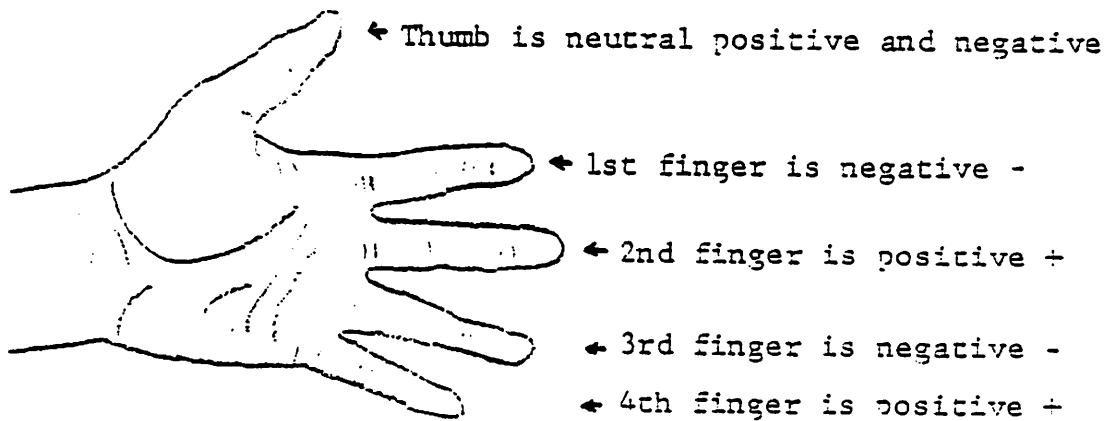
the patient will indicate the use of all three polarities on each call or a different polarity used on successive calls before completed remission is achieved.

3. When making the contact, the time needed for contact is reduced if the cooresponding finger on the opposite operator's hand is placed at the base of the primary operator's finger.
4. Patients which have received medical treatment of various types seem to respond the fastest to this procedure.

Having used this treatment for 24 months with a relative high percentage of results, it seemed time to share the procedure. The criteria we use for implementing the procedure is an area of positive therapy localization.

If the area doesn't exhibit a positive TL then treatment empirically seems to be of little benefit. The procedure is useful for various forms of localized skin syndromes if the criteria for treatment is present. We have even used it successfully on one case of parapimosis involving a 12 year old boy.

Figure 1



I believe that the many instances of successfully touch healing noted across the world can be explained on a rational repeatable basis, and that the procedures outlined on prior page, are at least a part of that basis.

I would appreciate hearing of the various results using this procedure with the percentages of results noted.

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Another Seeming Involvement of Right-Left Brain Activity
By K.E. Kirchner, D.C.

Observation of people and understanding the presented body language is many times the key to a successful conclusion of the many illnesses and syndromes seen in our patients.

For several years we have seen in our patients and friends a habit which didn't seem to have any significant meaning, other than a habit pattern. We have all seen people who consistently eat ice or drink iced drinks and others who prefer hot or warm drinks.

Having observed this pattern, I became interested in determining if a pattern was evident in muscle testing that would correspond consistently with the hot-cold habit pattern. Continuing with the testing program, we initiated a program of testing by orally using ice cubes and hot water on an alternate basis and then testing representative muscles unilaterally.

We followed our procedure on 100 people, the results of our testing program are as follows:

86 people tested were unilaterally weak on the left with an ice cube placed in their mouth and unilaterally weak on the right with a mouth full of hot water.

14 people tested were unilaterally weak on the left with hot water placed in their mouth, and were unilaterally

weak on the right with an ice cube placed in their mouth. The 14 people who didn't correspond to the majority were checked for switching and all tested positive, correction followed by various methods. When retested for hot and cold activity, 11 tested in accord with the majority while 3 remained opposite.

Conclusion:

1. Placing an ice cube in a persons mouth affects the right brain, while placing hot water in a persons mouth affects the left brain. This seems true in the majority of people.
2. In observing people, those which exhibit the known signs of predominate left brain activity seem to like hot drinks. Conversely, those people which exhibit the known signs of predominate right brain activity seem to like cold and iced drinks. This would seem to indicate the bodies innate attempt to decrease the activity of the dominate brain side, thereby bringing the body into a more balanced activity.

I would appreciate hearing from the interested doctors who initiate further testing with this procedure with their percentages.

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THE SIX FACTORS OF HEALTH AND A
"NEW PROSPECTIVE" ON THE PHENOMENON OF
OCULAR LOCK

By George N. Koffeman, D.C.

Abstract: Six factors of health are postulated and discussed in relationship to the triangle of man. The perimeters of health are stated in graphic form, and some of the factors aiding in the establishment of stability are enumerated. A review of literature pertaining to ocular lock and switching is undertaken and the postulate advanced that perhaps switching should be viewed as a normal adaptative phenomenon as differentiated from the abnormal in reference to pathological consequences.

The factors that maintain health in the individual may be broken down into six. There are many factors that contribute to disease states. Only six sustain health. These are:

- (1) Structure
- (2) Diet
- (3) Physical fitness
- (4) Psychological fitness
- (5) Biorhythmic integrity
- (6) Genetics

Under structure we will include all of the techniques of AK, except diet, and the emotional stress centers. That means osseous adjusting, skull adjusting, cranial/sacral work, reflexes, and the modifications within the meridian system by whatever means. Proper diet has been pretty well delineated

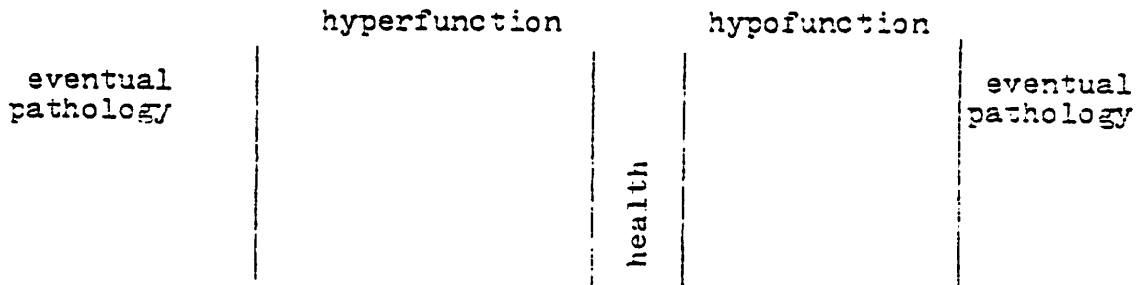
and all kinesiologists are grounded in the various aspects of this discipline. Depending upon their orientation then, we will consider them experts and pass on to the next category. Physical fitness relates to proper exercise for the purpose of this paper. Our only observations being that, in my view, everyone needs three types of exercise.

- I. Yoga type stretching exercises for ligament integrity. These should be done nearly every day.
- II. Weight resistance exercise for muscle tone. This should be on a graduated scale and not performed oftener than three times per week. And finally,
- III. Some form of cardiovascular exercise for maintenance of cardiovascular response. Jogging, swimming, jumping on a trampoline, bicycle riding are examples of this. This type of exercise should be indulged in daily or nearly so.

Psychological fitness as everyone knows can be enhanced by use of the emotional stress centers. More severe instances might be referred for counseling and it behoves our practitioners to have liaison with some specialist in the field who is well grounded in understanding of AK if possible. Biorhythmic integrity does not refer to graphs of emotional highs and lows from a Japanese calculator, but rather cycles that everyone lives with. We eat three times a day, as a rule we sleep so many hours, women have cycles of menstruation, and if we travel

too rapidly on jet planes and go through too many time zones we are apt to suffer a fatigue from disruption of these biorhythms. Maintenance is simply adherence to habit patterns of daily life that do not produce undo stress. Genetics, of course, are what we inherit from our ancestors and are immutable for each of us. A poor genetic inheritance may indeed frustrate all our attention to the other five. This, however, is fortunately a rare phenomenon. The other five can be influenced positively and applied kinesiology offers the greatest range of options, extant in reference to the so called wholistic approach. This concept was first presented, with the deletion of structure, by Cheraskin and Ringsdorf in their book "Predictive Medicing." ¹

The perimeters of health are narrow and may be thought of as a narrow road. Controlling mechanisms of the body are very exacting and hold physiological variations within tight limits. Among our patients we find the perimeters widened as indicated by muscle disfunction both over and under function. Treatment is designed to bring these highs and lows back into the normal, narrow configuration, and of course, we have varying results depending upon the age of the patient, his or her cooperation, our ability to manipulate the five factors and his or her inherited reoperative regenerative abilities. Representing the perimeters of health in a graphic form as you will see.



Beyond those perimeters are hyperfunction and hypofunction. Each individual patient is in a varying state of both hyperfunction and hypofunction. This corresponds to the bodies attempt to maintain its priority system. As we all know, the body has a priority system similar to government in which the first priority is to keep the person alive, therefore, such vital functions as heart, lungs and lower brain centers have an A-1 priority. Secondary centers pretty high on the priority list, but not A-1 are, liver functions, kidney functions, spleen, pancreas and other supportive glands and tissues, and of course, the higher brains centers. Next in priority down are the nutritive centers, stomach, intestines, excretory functions, etc., and last on the list are means of locomotion, i.e. legs. We realize this when we see that the temporomandibular joint has about 3000 proprioceptive pickups to about 300 for the entire leg. This comparison brings the priority system to us graphically and we well realize that people function fairly well in wheel chairs.

In the AK movement exhaustive studies have been made into the depth correction of functional disorders. The bodies ability to reverse pathologies and methods of maintaining correction over the longest span of time possible. Many innovative methods have been developed to increase stability within the patients metabolic processes. Cross call patterning, associate points of the meridians, elaborate methods of spinal adjusting, i.e. Dr. Christopher Harrison, ICAK tape² the use of acuaid and magnets to reinforce meridian correction, withdrawl of allergins from the diet and environment,

and many more. With this stability factor in mind the order of procedure has been outlined in all of the later research manuals, updated and changed relative to new material presented to be incorporated into our armamentarium. Very near the top of the list is always the check out of the patient for switching or ocular lock. This is necessary, of course, because a patient who is switched will give false information on many of the aspects of applied kinesiology examination. When Dr. Goodheart first described the switching mechanism in relation to Glabeller faults it was very interesting to me because I had previously described the adjustment of the low side of the occipit when the body indicated need for adjustment there and that adjusting into the subluxation had righted the skull. The high side had come down so that it was then level. This was a paper entitled "Pot-pour-ri", presented, I believe, in Gaylord at the second meeting of the study group leaders. There were no papers presented at the original meeting, of course. Switching explained the reason that I was finding muscle weakness on the low side of the occipit instead of the high side. It is a tribute to the "innate intelligence" or the organism the "saving grace" of the chiropractor that the body is able to take and utilize the incorrect thrust using the energy therein to correct itself, on more occasions that we would care to acknowledge.

Dr. Stoner describes use of K27 and the umbilical contact for switching and recommends that it be used routinely on all patients.³ He states K27 alternates the flow of energy to one side of the body as opposed to the other especially in flexion

extension of the lumbar spine. Fred Illi, D.C. has shown rather conclusively that flexion is necessary for rotation, rotation is necessary for flexion of the lumbar spine. Dr. Goodheart feels that K27 literally functions as an alternator which sends impulses to one side of the lumbar spine and then the other, thus allowing a countertork to take place.

Dr. Goodheart in the 1974 research manual⁴ enlarged on the concept of ocular lock introducing the K27 umbilical contact and divorcing it from association with the Glabeller fault, adding a technique dimension. Walther on page 54 of his manual⁵ gives the most succinct and clear explanation of technique evolved up to 1976, explaining the use of the governing and conception bessels and the coccygeal contact. Dr. Gunn⁶ in the collected papers of 1979 wrote a very fine paper on switching, stating it is a compensating response of the body. A backup system going into operation because one or more body systems are not functioning. Methods of how to eliminate switching "permanently" are described. Dr. Gunns text refers to the paper on "synchronization reflex technique" by Alan Beardall⁷. Dr. Beardall's paper states that "synchronizing the cloacal reflexes changes the sequential vertebral distortion in the flexion countertork relationship". This should modify the observations of Illi and change the direction of thrust in the Lovett brother phenomenon. Dr. Christopher Harrison in his 1979 ICAK supplemental tape² stated that the operator must be unswitched also in order to obtain correct information in the testing process. Others have made similar observations in the past.

Dr. Terry Franks in conversation with me stated that he does not correct ocular lock before proceeding with adjusting. Because of his observation that the patient will switch back and forth sometimes with great frequency. I have noted, also, that Dr. Goodheart in demonstrating at the workshops, in Gaylord July and August 1979, proceeded with the demonstration without checking ocular lock. Whether this is a stage routine to save his time or the procedure he uses in his office currently, I do not know, however, his demonstrations always work. We have all experienced that:

Truly left handed people, a very small proportion within the population as differentiated from the 10% to 15% of the people who do something such as writing left handed, are rare birds indeed, and less than 1% of the population. They are anatomically different and their meridians, especially the center meridians, require running backward for correction.

The literature of ICAK is by no means exhausted by these references. There is Dr. Gunns⁸ paper on "umbilical tap". Dr. Diamond's⁹ the importance of being centered. Dr. Jose Rodriguez¹⁰ relationship between the switching mechanism and the figure 8. After 6 years, etc. of observation I am of the current opinion that "ocular lock" is a "brain resting" mechanism. That certain cells become "overloaded" and function shifts. To accomplish this requires adaptability within the meridian system, but I believe this to be a normal function. If this assumption is right the concept of "correction" is erroneous.

If this be the case then we are seeing "two faces of normal" like a two throw switch "position one or two". One should not then expect that ocular lock would lead to pathology as would a long standing subluxation, for example, ocular lock must be set on position ONE in order not to confuse other test data, but we cannot expect "stability" of the ONE position, i.e. unswitched, for long intervals.

Someone has stated that acuaidis on SP-21 would keep the patient unswitched permanently. (note I have lost the reference for this statement.) Since I now believe as I have stated I think this procedure might be like placing a penny behind a fuse, it may work, but could perhaps prove dangerous in time.

I do not like this idea: I would be grateful if someone could prove me wrong by holding the unswitched position in patients for say two weeks to a month without use of magnets or acuaidis.

Up to now I haven't seen it conclusively demonstrated.

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Figure 8
By: Dr. Jose Rodriguez
Gaylord, Mich. (July 1975)

A VALIDATION STUDY ON THE EFFECTS OF MUSIC
ON THE MUSCLE STRENGTH OF THE BODY

David W. Leaf

Abstract: An attempt was made to evaluate the effects of music upon muscle strength of the body. A random sample of one hundred patients tested using varying forms of music, of classical, rock and soul, in an attempt to determine if any one type of music adversely affected the strength of the body.

The purpose of this research was to determine if music, and varying forms of music had any affect on the muscle strength of the body. John Diamond in 1977 presented in the summer meetings of the ICAK a presentation attempting to show that different musical beats adversely affected the muscle strength of the body. In his book "Behavioral Kinesiology", John Diamond went further to name the music of different rock groups of the mid-sixties as being detrimental to the muscle strength of the body. The following research format was designed to attempt to evaluate these findings. The format of the research project was that ten second recordings of the music were made on tape a total of fifteen different musical selections were chosen and the subject listened to each segment with a strong deltoid being tested following the listening of each segment.

The music selected was

1. "Carmen" by Bizet
2. "Somebody to Love", Jefferson Airplane
3. "Finlandia" by Sibelius
4. "Hello, I Love You" by the Doors
5. "Pathetique" by Tchaikovsky
6. "Bobbie Magee" by Janis Joplin
7. "My Eyes Have Seen You" by the Doors
8. "Rhapsody in Blue" by Gershwin
9. "Sitting On The Dock of the Bay" by Otis Reading
10. "Hackensack" by Thelonius Monk
11. "I Hear a Symphony" by Diana Ross and the Supremes
12. "Satisfaction" by the Rolling Stones
13. "Polanase in A Flat" by Chopin
14. "I Get Around" by the Beach Boys
15. "Good Golly Miss Molly" by Credence Clearwater Revival

Effects of Music - Leaf
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One hundred random patients were selected for the study and they ranged in age from sixteen to seventy-eight. Each patient listened to the music through a set of ear phones. After ten seconds each patient was tested for effects upon the deltoid muscle. At the end of eight selections the side of testing was changed so that there would be little fatigue factor upon the muscle structure. The person doing the testing was unaware of the order of the music as ear phones were used so that only the patient tested would know the music recorded. Responses were numbered one to fifteen, responses were marked whether strong or weak.

Findings: On only four patients of the one hundred was there any weakening to the muscles. These four patients showed a weakness to varying musical types and there was no constant.

Conclusions: The conclusion of this report shows that there is no one type of music which makes all patients weak. There was no common denominator between the four cases which at this point we would have to consider to be within the margin of statistical error. A preliminary trial was done in which the testor was aware of the order of the music. In this case there appeared to be more cases of weakness found. Because of this, the format of this research was done to rule out any operator prejudice.

THE PYLORIC SPHINCTER

David W. Leaf

Abstract: This paper discusses the clinical significance of the pyloric sphincter as related to ilioceal valve problems.

As we are all well aware, the ilioceal valve plays an important part in the control of the motivity of food and its remnants through the digestive tract. This past year, George Goodheart presented information on the Houston's valves. These valves tend to function as to support the weight of the fecal matter and prevent its urging forward towards the anus. As Dr. Goodheart stated there is a ricochet romance between the Houston's Valves and the iliocecal valve, that many times in treating the iliocecal valve you must treat the Houston's Valves in order to stabilize the patient. W. D. Harper, past president of Chiropractors College, used to state that all of the sphinctors and the valves of the intestinal tract function together. That, if you cause the relaxation or a contraction of one valve, you affected all of the other valves of the G.I. tract. With this thought in mind, patients were examined for imbalances in the their pyloric sphincters. Basicly the pyloric sphincter has a limiting function in the control of gastric emptying. Normal emptying of the stomach occurs if the pilorus is held open. The antrim of the stomach, the pilorus and the upper duodenum usually function as a unit. Contraction of the antrim is followed by sequencial contraction of the piloric region and the duodenum. In the antrim, contraction ahead of the advancing gastric contents prevents solid masses from entering the duodenum. Therefore, the gastric contents are squirted a bit at a time into the small intestine. Normally regurgitation from the duodenum does not occur because contraction from the piloric segment

The pyloric sphincter
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tends to persist slightly longer than that of the duodenum. Patients that have exhibited iliocecal valve problems and had symptoms relative to gastric upset. An examination was made involving therapy localization to the area approximately over the neurolymphic reflexes for these reflexes a directional challenge was applied to the skin. It was found that both an open and closed condition of the piloric sphincter could be demonstrated. Open piloric sphincters were found to be related with weaknesses to the pectoralis clavicle and with therapy localized to the lymphatic reflexes, vascular reflexes, of the pectoralis clavicle and were also negated by the tonification points of the stomach. A closed condition of the piloric sphincter was found to be related with the neurolymphatic reflexes, vascular reflexes and meridians for the quadriceps or small intestine. Procedure for determining involvement of the piloric sphincter involves therapy localization to the appropriate area in the right upper quadrant of the abdominal cavity. A directional challenge is then applied after determining that we are not dealing with the lymphatic reflexes, the soleus, or the serratus. Strengthening of an indicator muscle, usually either the pectoralis clavicle or the quadriceps, the later in the case of the open condition and the quadriceps in the case of the closed condition will indicate the relative state of the sphincter. The appropriate reflexes are then therapy localized to determine involvement and are treated in the usual fashion. It has been the author's findings that balancing of the iliocecal valve, Houston's valves and the piloric sphincter are all necessary to balance out the G.I. tract.

ELBOW FUNCTION AND DYSFUNCTION

by
Benjamin C. Markham, D.C.

ABSTRACT

A review of elbow anatomy and function. There is discussion of functional biomechanics involving the actions performed by specific muscles. Taping, manipulation, and current applied kinesiology techniques are considered.

Elbow Function and Dysfunction

by Benjamin C. Markham, D.C.

Many physicians feel that the elbow is a simple joint requiring little study of its functional biomechanics, which is why so many practitioners dread treating elbow problems and get limited results in that area. However, with a working knowledge of elbow anatomy and function and standard applied kinesiology techniques, you can easily become an expert in the diagnosis and treatment of elbow dysfunction. You will actually enjoy working with problem elbow cases because of the increased results you will find in this area. A brief review of the anatomy and function of the elbow is required before adequate diagnosis and treatment can be performed.

The elbow is a ginglymus or hinge-type joint with three actual articulations (Fig. 1):

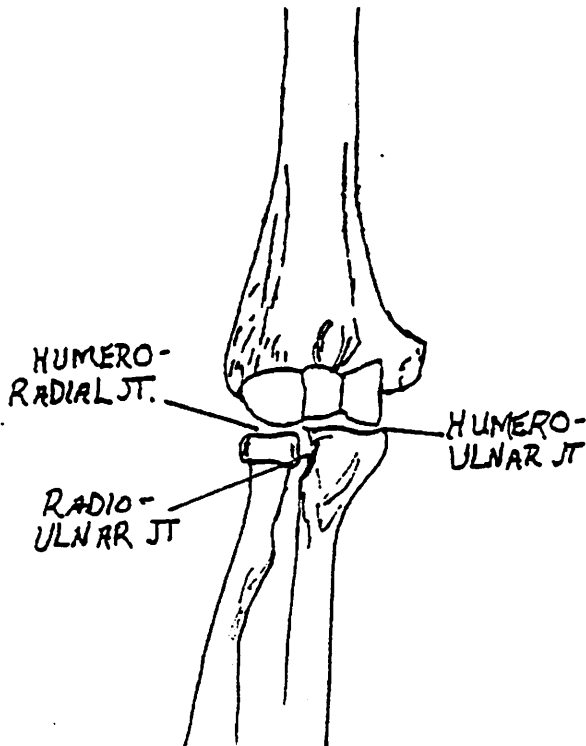


Fig. 1, after Hoppenfeld

1. Humero-radial joint;
2. Humero-ulnar joint;
3. Radio-ulnar joint.

The elbow has two functions physiologically:

1. Flexion-extension;
2. Supination-pronation at the proximal radio-ulnar joint.

The elbow is composed of several unique articular surfaces (Fig. 2):

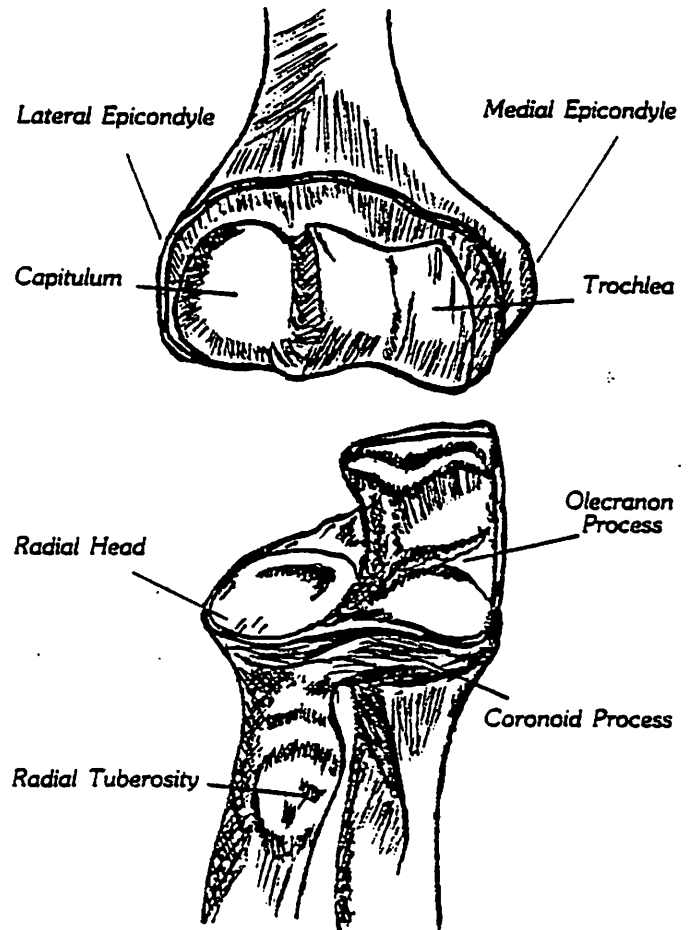


Fig. 2 — Elbow, Anterior Aspect, after Kapanaji

The distal humerus has two articular surfaces: 1) trochlea, a pulley-shaped surface with a central groove, and 2) capitulum, spherical in shape, which sits lateral to the trochlea. The proximal ends of the radius and ulna will have corresponding surfaces.

1. Trochlear notch of the ulna that fits into the trochlea; the olecranon process on the posterior ulna;
2. Radial concavity corresponding to the convexity of the capitulum of the humerus.

These three joints are kept in apposition by several ligaments:

1. Medial and lateral collateral;
2. Anterior and posterior;
3. Oblique anterior ligament.

There are three visible and palpable surface markings of the elbow: olecranon and medial and lateral epicondyles. In extension these points lie in a straight line. In flexion, the olecranon drops somewhat and an isosceles triangle is formed. Between the medial epicondyle and olecranon lies the ulnar nerve. Tapping here gives the "funny bone" sensation. Approximately an inch below the lateral epicondyle you can feel the head of the radius rotate during pronation and supination.

Flexor Muscles of the Elbow

There are three primary flexor muscles:

1. **Biceps brachii**
Origin: short head, from the coracoid process of the scapula; long head, from the supraglenoid tuberosity of the scapula.
Insertion: radial tuberosity.
Action: flexion and supination of forearm.
2. **Brachialis:**
Origin: lower two-thirds of the anterior of the humerus.
Insertion: tuberosity of the ulna.
Action: flexes forearm.
3. **Brachioradialis:**
Origin: proximal two-thirds of lateral humerus.
Insertion: lateral side of the base of the radius.
Action: flexes forearm after flexion has been started by the biceps and brachialis; may also act as a semi-pronator and semi-supinator.¹ Kapandji states that it acts essentially as a flexor of the elbow and becomes a supinator only in extreme pronation.

Extensor Muscles of the Elbow

Extension of the elbow is primarily on one muscle, the triceps brachii, with the anconeus contributing a minor amount.

Triceps, origin: long head, from infraglenoid tuberosity of the scapula; lateral head, from the posterior and lateral surface of humerus; medial head, from lower posterior surface of the humerus.

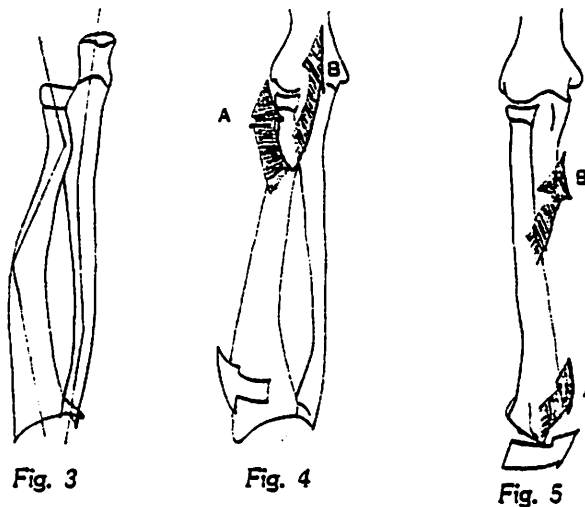
Insertion: olecranon process.

Since the triceps is a bi-articular muscle, its efficiency depends upon the position of the shoulder. Kapandji states that the triceps is most efficient and powerful when the shoulder is in flexion at 90° with a greater distance between its origin and insertion than when the arm is hanging down vertically.² The triceps is weakest when the elbow is extended as the shoulder is flexed. The long head of the triceps is "caught" between simultaneous antagonistic movements — lengthening due to shoulder flexion and contraction from elbow extension.

The flexors as a group are slightly more powerful than the extensors, giving a normal flexion or "carrying angle" of the arm of 5° to 15°. The power of the flexors varies with the rotation of the forearm, being more powerful in pronation. The flexor efficiency ratio for pronation/supination is 5:3 (Kapandji). The power of all the muscle groups depends on shoulder position also.

Radio-Ulnar Joint: Pronation-Supination

The rotation of this joint can only be studied if the elbow is kept flexed at 90°. If extension is allowed, there will be additional arm and shoulder rotation. The radius is shaped and functions very similarly to that of a crank (Fig. 3) and is formed in three segments.



after Kapandji

The neck of the radius joins the intermediate section at the "supinator bend," forming an obtuse angle at the attachment of the biceps at the radial tuberosity. The middle section joins the lower at an obtuse angle, or the "pronator bend" — where the pronator teres attaches.

The crank can be moved by two methods:

1. Unwinding a cord coiled around an end; and
2. Pulling on the apex of one of the bends.

This is precisely how the four muscles of pronation-supination act. You can divide them into two groups of two each. Each group (pronators and supinators) has one short flat muscle that acts by "unwinding" and a long muscle that tractions an apex of the crank.

Muscles of Supination

1. **Supinator** — wrapped around the head of the radius, acts by "unwinding" (Fig. 4A).
Origin: lateral epicondyle of humerus.
Insertion: lateral and anterior surface of the neck of the radius.
2. **Biceps** — inserts into the apex of the "supinator bend" or the radial tuberosity. It acts by traction and will exert its maximum pull when the elbow is flexed at 90° (Fig. 4B). This is why people use a screwdriver with the arm bent.
Origin: short head, from the coracoid process of the scapula; long head, from the supraglenoid tuberosity.
Insertion: radial tuberosity.

Muscles of Pronation

1. **Pronator quadratus** — coiled around the distal ulna, acts by "unwinding" so that the radius will

328 move or pronate over the ulna (Fig. 5A).

Origin: distal fourth of the volar surface of the ulna.

Insertion: distal fourth of the lateral border on the volar surface of the radius.

2. Pronator teres — inserts at the apex of the “pronator bend;” acts by traction (Fig. 5B).

Origin: medial epicondyle of the humerus and the medial side of the ulna.

Insertion: middle of the lateral surface of the radius.

Whenever there is elbow involvement, always check for and correct cervical and thoracic subluxations, scalene syndromes, and first rib involvements. These areas many times will be involved on a referred irritation basis. The most accurate way of determining dysfunction is by using applied kinesiology techniques of therapy localization and challenge. If you suspect proximal radial head subluxation, which is very common, have the patient simply therapy localize or touch over the suspected area of subluxation. If it is involved, a strong indicator muscle will weaken, or a weak muscle will strengthen. The next step would be to identify the direction of lesion by challenge. Remember, there is no rebound phenomenon in the extremities; you adjust in the direction of strength. If challenging the radial head by pushing it superior weakened a strong muscle, you would know that the patient had a superior radius, and you would adjust it in the direction of inferiority. In the same example, if you had started with a weak indicator muscle, challenging the radial head inferior would have strengthened it. Therefore you would adjust it inferior (in the direction of strength). Challenge and therapy localization are invaluable tools — use them! You can evaluate all three articulations of the elbow in this manner in less than a minute.

In a majority of sprained wrists you will find a radial subluxation also. When a patient complains of “sleeping fingers,” or there are other brachial paresthesias, always check the radius. When the proximal radius is subluxated, it is apparent when you pronate the forearm. There will be point tenderness over the radial head area and fullness that the other arm does not present.

When bursitis is present, it will appear on the posterior aspect of the elbow following a chronic occupational strain such as develops in the knee (“housemaid’s knee”). Taping for this condition is very effective, as is elastic support. Pictured below is the taping method recommended by August L. Schultz, D.C., Ph.C.³ His book, *The Shoulder, Arm and Hand Syndrome*, is highly recommended for anyone studying the elbow. The taping should be done with the arm straight so that when it is flexed it will create pressure and cause drainage of lymphatic fluids and other accumulated fluids. Four strips of 1½” tape are criss-crossed over the posterior elbow as shown in Fig. 6. Next, place ten strips over the criss-crossing as seen in Fig. 7. The taping should not enclose the anterior aspect of the arm, but should leave an opening 1” to 2” apart. Anchor strips should be placed

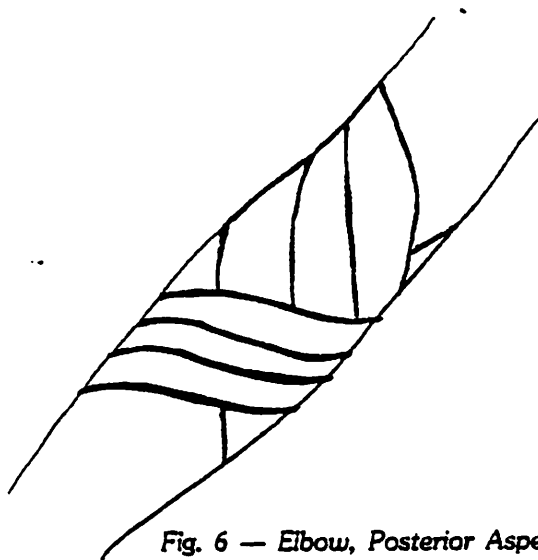


Fig. 6 — Elbow, Posterior Aspect

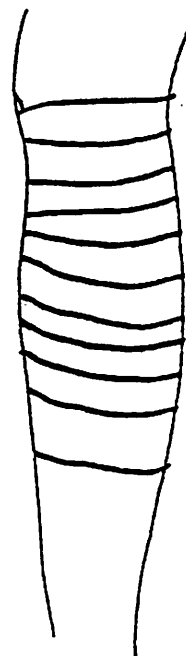


Fig. 7 — Elbow, Posterior Aspect

on the front of the elbow, with three long 3” pieces placed horizontally — two below the joint, and one above. Anchor taping should have no pull or pressure, as its purpose is to hold the ends in proper position.

External epicondylitis and tendonitis will be evidenced by tenderness of the lateral epicondyle and also sensitivity of the biceps and brachialis tendons. Numbness, tingling, and other paresthesias will often accompany this condition. Pain in the elbow and forearm extensors occurs when the patient grasps an object with all fingers and squeezes. A common etiology involves strain from a

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3. Schultz, *The Shoulder, Arm and Hand Syndrome* (Stickney, SD: Argus Printers, 1969).
4. Walther, *Applied Kinesiology — The Advanced Approach in Chiropractic* (Pueblo, Colorado: Systems DC, 1976), p. 285

new job. On occasion it may be so severe that the arm will not fully extend. There is usually first rib and/or cervical-dorsal subluxation that must be corrected for proper elbow function, as well as a radial subluxation found on challenge or therapy localization. Heat to the involved area is helpful, as is taping. The taping is similar to that shown above; however, the criss-crossing occurs on the anterior elbow with approximately 10 to 12 strips horizontally over those. Do not completely encircle the posterior aspect with tape. Anchor strips are placed with two above the elbow and one below. Remember, the elbow must be partially flexed in the taped position. In an acute stage of the tendon contraction, manipulation is contraindicated.

Sports or occupational strain will many times cause an interarticular ripping of a small portion of the synovial membrane between articular surfaces of the radius and humerus. This needs to be released in a short period of time or it may become edematous and slough, leaving a raw area which can attach to other areas and form an adhesion. This is usually caused by a sudden trauma or when the elbow is used extensively. It may send sharp pain down the lateral forearm and posterior elbow; the pain will be relieved with rest, but return on activity. On challenge and therapy localization you will usually find the radius subluxated. An excellent method for correcting the radial subluxation is demonstrated in the text, *Applied Kinesiology — The Advanced Approach in Chiropractic*, by David S. Walther, D.C.⁴

The ulnar subluxation is usually in a superior direction, and is commonly due to a fall where the person tries to break the impact with his forearm. Therapy localize, challenge, and correct the ulna as indicated. Again, any student of the extremities should study August Schultz's work on the extremities. He goes into depth in areas of manipulation and taping.

In any type of elbow involvement, always check the adductors. Clearing the neurolymphatics of the adductors will many times give complete remission of elbow pain. Evaluate all muscles involved with elbow function. The deep branches of the radial nerve pass through the supinator muscle, and involvement of this muscle can refer pain to either the shoulder or the wrist. When there has been trauma to the elbow musculature, origin-insertion technique will be very useful in regaining normal muscle function. Proprioceptive dysfunction is commonly involved with reactive muscles, especially the supinator and triceps. Goodheart has found that brachioradialis involvement may be related to insomnia and nervous conditions. If the elbow problem is persistent, evaluate for possible foot dysfunction.

Utilizing your knowledge of anatomy, function, and the diagnostic tool of applied kinesiology, you will have superb ability to treat not only the elbow but all extremity problems very successfully; it will enhance your practice significantly!

UPPER CERVICAL FIXATION
RELATIVE TO THE PSOAS

by
NANCY L. MC BRIDE, D.C.

ABSTRACT:

Most unilateral psoas major weakness is related to upper cervical fixation.

INTRODUCTION:

In 1972 while studying Applied Kinesiology with Dr. George Goodheart I also participated in a series of seminar given by Dr. Robert Ridler, D.C. of Seattle, Washington. A set of notes printed by Dr. Ridler was given with the series, titled - Kinesiology. In the notes Dr. Ridler gave not only the description of the major muscles commonly studied by beginners in Kinesiology but he also correlated each muscle test to a vertebral segmental involvement. In those notes there is a reference to the J-I - Psoas Test. Dr. Ridler correlated the Psoas weakness to either an anterior or posterior atlas sub-laxation. In practice I found this to be evident often. On one occasion while I was testing a patient for a weak psoas and I was just about to begin the sequence described by Dr. Ridler to determine J-I involvement, the patient cocked his head laterally as if duplicating an upper trapezius test in the supine position. Suddenly the previous tested weak

Psoas was strong.

CLINICAL APPLICATION AND OBSERVATION:

When a weak Psoas major test is elicited simply have the patient tilt the head in lateral flexion without rotation to one side and then the other and observe if there is any change in the strength of the psoas during retest with the head remaining in the flexed position. Using the challenge technique; challenge the entire upper cervical complex (C-1 thru 3) to determine direction of thrust. Recheck the psoas for weakness. During the presentation of his research paper in Detroit, 1979. Dr. Perry Franks mentioned that you must wait a few minutes after adjusting the spine for the effect of the adjustment to subside before any further challenge or audit technique will become valid. With this in mind I either have the patient walk around the office for a while while I do something else or retest the Psoas just before the patient is dismissed. In the years that have elapsed since this mechanism first appeared I have tested every patient with a Psoas muscle weakness with this upper cervical challenge and have not found a dozen patients during that length of time who have not had either bilateral or unilateral upper cervical involvement. The predominance of patients have shown the involvement to be bilateral rather than unilateral, suggesting fixation.

The above procedure does not necessarily abolish the need to audit the other factors of the 5 IIV syndrome.

RESEARCH ON THE RUN: FOOD FOR THOUGHT

by Kerry M. McCord D.C.

ABSTRACT: A substantiation of the postulate that whole foods, rich in particular nutrients, can be used to satisfy nutritional need as identified and monitored by kinesiological testing.

Homeless in 1979, I was predominantly engaged in foreign travel, devoid of a bonafide Chiropractic practice, making research difficult, at best. However, a unique set of circumstances and exposure to particularly inspiring thoughts combined to stimulate a specifically oriented investigation regarding food and its role in maintaining balance and integrity in the body of man.

Among those passages that provided inspiration was this statement of Hippocrates as he admonished his students over twenty-five hundred years ago, "Thy food shall be thy remedy."¹ That simple yet profound exhortation provided the theme and substance of a delightful and enlightening afternoon of reading.² At this same time I was exposed to a succinct overview of the thoughts and theories of James Pershing Issaacs, expressing the dynamic balance maintained at the cellular level by the trace minerals, vitamin A, E, and C.³ Finally, a Tablet from the writings of Abdu'l-Baha* concerning the cause of disease and the function of a skilled physician was perused. Excerpts from that Tablet follow:

The outer, physical causal factor in disease...is a disturbance in the balance, the proportionate equilibrium of all those elements of which the human body is composed. To illustrate: the body of man is a compound of many constituent substances, each component being present in a prescribed amount, contributing to the essential equilibrium of the whole. So long as these constituents remain in their due proportion, according to the natural balance of the whole - that is, no component suffereth a change in its natural proportionate degree and balance, no component being either augmented or decreased - there will be no physical cause for the incursion of disease.

...It is the function of a skilled physician to determine which constituent of his patient's body hath suffered diminution, which hath been augmented. Once he hath discovered this, he must prescribe a food containing the diminished element in considerable amounts, to re-establish the body's essential equilibrium. The patient, once his constitution is again in balance, will be rid of his disease.

The proof of this is that while other animals have never studied medical science, nor carried on researches into diseases or medicines, treatments or cures - even so, when one of them falleth a prey to sickness, nature leadeth it, in fields or desert places, to the very plant which, once eaten, will rid the animal of its disease.

At whatever time highly-skilled physicians shall have developed the healing of illnesses by means of foods, and shall make provision for simple foods, and shall prohibit humankind from living as slaves to their lustful appetites, it is certain that the incidence of chronic and diversified illnesses will abate, and the general health of all mankind will be much improved. This is destined to come about. In the same way, in the character, the conduct and the manners of men, universal modifications will be made.⁴

Imagine yourself, exposed to these intriguing thoughts, surrounded by exciting, yet seemingly inhibiting circumstances (i.e. a stranger in a developing West African nation), faced with a mandate from the International College of Applied Kinesiology to offer substance to the common good. Fortunately, through the gracious assistance of the Baha'i* community of Sierra Leone, I

was given the opportunity to share and demonstrate the essence and fundamental application of Applied Kinesiology on a grand scale. Arrangements were made for national television and radio interviews, and lectures were organized for the Medical and Dental Association and the general public. The response, both public and professional, was overwhelming, precipitating a unique opportunity to present a proposal to the Ministry of Health offering a program of study in Applied Kinesiology. (see Exhibit A) As a direct result of these activities, some three score and more willing patients, unwittingly offering their bodies to science and research, were providentially provided.

Chronic digestive distress, peptic ulcer, hypertension, diabetes, nephritis, tuberculosis, tropical ulcer and neuro-musculoskeletal syndromes were among the variety of conditions observed. Faced with an overwhelming need for vitamin supplementation (A, E, C and B complex, especially), exposed to the inspiration and stimulation of the afore-mentioned literature, unable to procure bottled nutrients (to which we have all become accustomed), food became an obvious substitute for vitamin tablets setting the stage for substantiation of the postulate that whole foods, rich in particular nutrients, can be used to satisfy nutritional need as identified and monitored by kinesiological testing. Potato, carrot, palm oil, lime and active dry yeast were plentiful and used with substantial reward.

Forty-five individual muscle tests performed on thirty different patients were recorded as having responded positively to the above-mentioned nutrients. (see Exhibit 3) Regular and

often frequent ingestion of tested foods was complimented by dietary changes offered in an effort to enhance overall response. Allow me to share two examples: 1) A man in his early 40's, complaining of severe digestive distress and a "differentially diagnosed" duodenal ulcer (1974), was examined, revealing the presence of bilateral quadriceps femoris and right pectoralis major sternal weakness coincident with an ileocecal valve syndrome. Upon further evaluation the need for yeast (B vitamins) was identified by positive response of the quadriceps bilaterally. One teaspoon of yeast, dissolved in water, was recommended hourly, while fasting for two days on zucchini and stringbean broth.⁵ As the fast was broken and a strict dietary regime was implemented, the frequency that the yeast was to be taken was reduced to six, then three times a day. Symptoms began to abate, the patient returned to work, and in less than one month, a ten year old syndrome had been relieved and brought under control. 2) In another individual, an acute nephritis and an asymptomatic pulmonary tuberculosis were diagnosed by x-ray, sputum test and urinalysis in the office of a local physician. A 48 hour lime water fast was recommended, followed by a diet restricted to fresh fruits and vegetables. Examination had revealed bilateral psoas and left deltoid weakness in the clear. Of particular interest was the fact that x-ray evidence of developing tuberculosis appeared only in the left lung. A positive response of the deltoid to fresh lime and an obvious need for instant and exact response of both conditions, combined to stimulate the recommended fast. The lime

water was mixed in an approximate ratio of 1:8 and two quarts were recommended daily, gradually to be reduced by one. Ten days passed and re-examination by the local doctor revealed that all previously positive diagnostic signs were absent! Confounded by the test results, he concluded that the original x-ray and sputum evaluation, intimating the existence of tuberculosis, must have been in error. No comment was made regarding the improved condition of the kidneys.

These examples are obviously wanting of detail regarding the extent to which kinesiological and nutritional care were employed, however, the intention, I believe, was fulfilled. It is not my purpose to advocate the elimination of bottled nutrients, nor to promote the use of foods as described above, but rather to stimulate thought regarding the increased utilization of whole food as a primary tool in restoring and maintaining homeostasis in the body of man.

The use of Applied Kinesiology in monitoring any therapeutic postulate is one of the greatest assets of the science and art. Much can be surmised and implied from the previously presented material, however, my hope is that it demonstrates, once again, the flexibility that is inherent in the system, and acts as a stimulus for continued creative investigation.

EXHIBIT A

Excerpts from a proposal addressed to the Chief Medical Officer,
Ministry of Health, Sierra Leone, West Africa.

In our efforts to introduce, while in Sierra Leone, the science and art of Applied Kinesiology we have been encouraged by an over-whelming individual response to an interview aired on National television, the animated interest and enthusiasm generated at a presentation given to the Medical and Dental Association, and communication on an individual basis with a number of practicing physicians. In contemplating this encouraging and enthusiastic response I have been moved to draft this briefly outlined proposal, offered for your consideration in the hope that Sierra Leone might be among the first of those countries we will be privileged to re-visit and serve.

In an effort to establish the practice of Applied Kinesiology on a wide-spread basis in Sierra Leone it would be necessary for me to return for an estimated period of three to six months, during which time a pre-arranged program of instruction would be offered to interested physicians and support personnel (nurses, therapists, etc.) each weekend for ten to sixteen weeks, laying a firm foundation for continued advanced training and offering ample opportunity for practical application and the resolution of inevitably encountered difficulties. The diagnostic and therapeutic equipment required, other than what would be available in orthodox medical facilities (e.g. x-ray, laboratory, etc.), is minimal. The greatest single potential expense are examining and treatment tables that include an appropriate face piece and the ability to be easily raised and lowered easing the physicians physical burden and facilitating proper care. (These might be designed and produced by local engineers). My families needs would, of course, need to be satisfied; housing, transportation and salary provided to compensate my services would be minimally required. Obviously, continued, sustained efforts in this country as well as others depends upon adequate capital. The only other expenditure that I can foresee in the implementation of such a program are texts and materials necessary for instruction and individual study. If the availability of funds is an inhibiting factor there may be a possibility of securing support from the World Health Organization, an eventuality that would be most appropriate, possibly providing an opportunity for the same to be offered by WHO in other countries around the world. I would, of course, be most pleased to cooperate.

EXHIBIT B

Total number of patients in study = 30

Male: 21 Female: 9 Ages: 19 to 69

Foods Utilized (with assumed nutritional value)

Carrot - Vitamin A
Lime - Vitamin C
Palm Oil - Vitamin A, E, and F
Potato - Calcium, phosphatase
Yeast - B complex and RNA

Male	QF(yeast)Sar(lime)	Low back pain
Male	CTn1(potato)	Wrist pain/weakness
Male	Del(lime)QF(yeast)	TB/kidney infection/fatigue
Male	QF(yeast)	Stress
Female	QF(yeast)	Fatigue
Male	QF(yeast)	Ulcer/chronic digestive distress
Male	QF(yeast)	Digestive problems
Female	Sar(lime)QF(yeast)	Knee and low back pain
Male	QF(yeast)Sar(lime)	Dizzy/back ache
Male	Sub(palm oil)(lime)	High blood pressure
Male	Del(lime)	(no symptoms)
Male	LD(carrot)	Diabetes/hypertension
Female	Dia(lime)QF(yeast)	Indigestion/hiatal hernia
Male	ATb(potato)	Lt. hip/leg/when walking
Male	Dia(lime)Sub(yeast)	Headaches/easily out of breath
Male	QF(yeast)	(no symptoms)
Male	Del(lime)	Sore throat/impotent
Female	ATb(potato)	Foot/leg cramps
Male	QF(yeast)	Headaches
Female	Pir(palm oil)	Menstrual cramps
Male	Sar(lime)PMS(carrot)	Wakes in night/fatigue
Male	PMC(yeast)	Migraine
Male	Sar(lime)QF(yeast)	Weakness/fatigue
Female	Sar(lime)QF(yeast)	Bowel/depressed/hands sweat
Male	LD(carrot)ATb(potato)	Low back pain
Female	QF(yeast)	Fatigue
Male	QF(yeast)	Headache
Male	UT(yeast)LD(palm oil)	Boils(recurrent)
Female	Del(lime)QF(yeast)	Shoulder/knee/leg cramps
	ATb(potato)	
Female	QF(yeast)Sar(lime)	Diabetes/ulcers on legs
	LD(carrot)	

Index of Abbreviations

ATb - Anterior Tibial	PMC - Pectoralis Major Clavicular
CTn - Carpal Tunnel	PMS - Pectoralis Major Sternal
Del - Deltoid	Sar - Sartorius
Dia - Diaphragm	Sub - Subscapularis
Pir - Piriformis	QF - Quadriceps Femoris
LD - Latissimus Dorsi	UT - Upper Trapezius

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*Abdu'l-Baha, the eldest son of the prophet-founder of the Baha'i Faith, is considered one of its central figures and the perfect Exemplar of its teachings. His writings are considered as constituting a portion of the sacred text. Baha'i literally translates as the follower of Baha (Light), a designation used to denote the prophet-founder, Baha'u'llah. The pivotal principle around which all of His teachings revolve is the Oneness of the world of humanity - "The earth is but one country and mankind its citizens."

SIMPLIFIED TESTING PROCEDURES FOR THE
UPPER TRAPEZIUS AND PSOAS MUSCLES

by
Donald A. McDowall, D.C.

Abstract: The muscles of the upper trapezius and sartorius groups have been tested in my practice over a period of eight years. This paper illustrates easier ways and more accurate ways to test both of these muscles. It enables a quicker testing time and a more accurate evaluation of the use of these muscles during testing.

Introduction: The classical way for testing the upper trapezius has been to proximate the occiput to the shoulder and attempt to separate by the doctor pulling the patient's head away from his shoulder as the patient resists. Many times these muscle groups will show weak when observed as being inadequate from postural evaluation, TS line and related symptom pictures. However, I have found sometimes testing will not show these muscles to be weak when obviously the posterior neck extensors are inadequate in their postural function and high occiput, low shoulder evaluation unilaterally is evident. I find that the neck extensors may test completely strong in all positions and under the various therapy localisation procedures. With an erect postural evaluation the head will still have a slightly forward lean with the gravity stress landmark of the external auditory meatus being forward of the shoulder. This, of course, from a lateral point of view.

During my examining procedure the concept came to me that resting the middle and lower trapezius by having the patient extend his shoulder with the arm straight, thumb in the air and turning his head to the side of the raised arm produced a more accurate mid and lower trapezius test. The ability of the patient to turn his head to the side of the raised arm

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produces an inactivity of the upper trapezius so that the mid and lower may be tested more accurately without recruitment.

I find that by having the patient lay supine and extending his arm in the same direction as the test for the mid and lower trapezius and adducting the shoulder when testing the upper trapezius produces an inactivity in the mid and lower trapezius and gives a more accurate test for the upper trapezius. This means the patient raises his arm and extends his shoulder in the position of testing the mid and lower trapezius and then puts his occiput as close to his shoulder as possible as the doctor attempts to separate them. This separation becomes much easier and hidden muscle weaknesses with the upper trapezius become more apparent.

If you remember when testing the anterior neck flexors, the scalenes and sternocleido mastoideus, we always have the patient raise their hands above the head to neutralise the chest and abdominal muscles from recruitment to the anterior neck flexors.

I believe my observations here enable us to separate the recruitment of the other trapezius fibres and shoulder muscles from the upper trapezius during testing procedure.

The most common factors that neutralise this observation appear to be neurolymphatic reflexes and the other I.V.F. factors at a minimum. Generally a prolonged neurolymphatic reflex will be most effective.

Postural observations appear to be quite dramatic and greatly enhance the patient's ability to maintain the correct posture.

As you are aware the origin of the upper trapezius is the external occipital protuberance, superior nuchal line, nuchal ligament from the spine of the 7th cervical vertebra. This origin assumes the posterior support for the nuchal ligament connecting all the spinous processes and the posterior arch of atlas of the cervical vertebra. In this manner the posterior support of the cervical area is complete. I believe that better support by this muscle group will enable better postural function. The insertion of this muscle is into the lateral 3rd of the clavical, the spine of the scapula and the Coracoid process. This provides a bilateral anchoring mechanism for the upper trapezius to initiate the support.

The Sartorius

Many patients are tested with this muscle in various positions. Almost every Applied Kinesiologist that I have observed has a different way of testing the sartorius. The test can vary from simply extending the lower leg by stabilising on the knee to a complete rotation of the thigh without any extension of the lower leg.

It has been somewhat frustrating in attempting to perfect this particular muscle test with beginners to Applied Kinesiology and in the process of teaching them I have found a way to make this test less confusing and much easier.

I first observed this by watching a sloppy psoas test. As the doctor was testing the patient the patient bent his knee slightly and the doctor pushed down on the ankle in the direction that the psoas is usually tested. That is, about a 45° angle with the leg upward in a supine position foot rotated externally and the pressure in a lateral direction and towards the floor. As the

doctor was testing this patient his knee bent and the pressure initiated a weakness of both the leg muscles being tested. Upon correction both psoas muscles tested strong. Yet, when the patient bent his knees both muscles tested weak.

In searching for the muscle groups involved or pain initiated through incorrect testing, we found that the muscles exhibiting the greatest amount of weakness were the sartorius muscles.

The doctor inadvertently had shown me a way to test the sartorius muscles in a more functional attitude than I had ever observed before. Normally the twisting motion involved in testing the sartorius group took a lot of energy and was often extremely uncomfortable to the patient with any degree of joint sensitivity.

The testing procedure is simply this.

1. Have the patient extend his leg, rotate his foot out and lift his leg up as in the position for testing the psoas major.
2. Then have the patient bend his lower leg on his thigh slightly, perhaps 20° .
3. Have the patient hold that position while you exert pressure on the lower leg and attempt to push it on to the table as if you were making a sloppy psoas test.

You will find this particular approach to testing the sartorius is a lot easier. It enables the patient to understand a better resistance to the double joint action necessary for the testing of the sartorius. It also enables a desire by the doctor to make more frequent testing of this commonly indicated muscle group.

I believe that this testing procedure has shown a more accurate testing response than any other approach I have used in the past.

As you are aware the origin of the sartorius is the anterior superior iliac spine, especially the upper half of the iliac notch. The insertion is into the medial surface of the tibia, distant to the condyle. When the test is performed the patient flexes his thigh on the pelvis and rotates it laterally as in the psoas position. He then flexes the leg on the thigh slightly and is now in the position for the test. The doctor then stabilises the opposite iliac crest and exerts pressure on the lower leg straight on to the table. The apparent weakness will then show.

These tests are observations that I have made over the past year and have provided me with a much greater satisfaction of testing these particular muscle groups. There may be approaches and other implications that I have not considered within this paper that will add to the information that I have observed. It is my intention to present this information simply as observations of clinical application of muscle testing and their assistance in a busy practice.

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PHILOSOPHIES, OBSERVATIONS AND EPIGRAMS OF APPLIED KINESIOLOGY

Edited and Observed by Donald A. McDowall, D.C.

Abstract: These quotations, philosophies and epigrams were observed during the last ten years of attendance at seminars, conversations and from instructional material presented by Dr George Goodheart, D.C. It is my intention in the following pages to present a summary of these concepts in such a way that Applied Kinesiology may be better understood, applied and illustrated to doctors who have had not exposure to it, or at the most, minimal exposure. It may also be entertaining to those who have been involved with Dr Goodheart since the inception of Applied Kinesiology. This material has been invaluable in the workshops, in seminars that I have presented over the last six years and I hope will be of benefit to fellow Applied Kinesiologists.

Introduction: At the time of my initiation to Applied Kinesiology I was extremely impressed at the ease of understanding the technical nature of Dr Goodheart's work. Many of the intricately simple and simply intricate techniques, concepts and ideas were far above my head initially. Due to the parables, explanations and comparatives that have endlessly been given during his lectures, tapes, workshops and published material, I have been able to gain a more enlightened understanding of his approach and motivation to health care.

In my observation, this approach stems from the receptivity to universal intelligence that Dr Goodheart has developed over the years.

My attempt to provide this information may not give a complete picture of every concept that he has elucidated but may give the reader more encouragement to take more notice of the hidden meanings behind so many words. These meanings may not always be expressed clearly in the words that are written, but they will trigger an awareness within the mind of each doctor who hears them. This information will assist the communication of many of the techniques and analysis procedures that Applied Kinesiology has developed. This down-to-earth communication provides an even greater enthusiasm within the doctor who is approaching Applied Kinesiology for the first time than most technical material that may be thrown at him.

The next step would be for each doctor to add to this information and develop even more concepts that he may have been exposed to during his association in Applied Kinesiology. As these are added and developed then a philosophy will form that makes us a distinct entity within the Chiropractic profession.

1. Are you a Pop and Pray, Rub and Hope man?
2. D.D. Palmer said: Disease comes from too much or not enough nerve energy.
3. Muscle testing can determine a disturbance to the structure as well as a Psychological or Chemical imbalance.
4. Muscle testing is the key to body language.
5. Innate intelligence is body language combined with muscle testing.
6. What persists exists, what exists persists.
7. THE ART IS TO MAKE THE PRINCIPAL BY INTENT.
8. CHIROPRACTIC IS BASED ON THE NERVOUS SYSTEM - NOT THE BODY SYSTEM.
9. Every visceral disease has a characteristic postural pattern.
10. Disease is caused by too much nerve action and not a shut off of nerve energy. D.D. Palmer.
11. Sometimes patients will have symptoms but will show no evidence of I.V.F. narrowing - WHY?
12. Muscle weakness can be a natural pattern (as in walking)..
13. The body is intricately simple and simply intricate.
14. Muscles counterbalance in normal movement.
15. The foot is the generator for the brain which is the battery.
16. The patient's body has the most sensitive level of discrimination.
17. THE DOCTORS PERCEPTION IS ONLY PROPORTIONAL TO HIS ATTITUDE AND KNOWLEDGE.
18. The most accurate diagnosing tool you can have is in your office - YOUR PATIENT.
19. If there is any abnormal function of the nervous system the patients own body will identify it.
20. BE OBSERVANT.
21. A patient often develops a threshold neurosis trying to describe the problem.
22. WATCH where the patient holds himself during a postural analysis.
23. There is no respiratory phase to walking but there is a walking phase to respiration. This indicates a lack of nervous feedback.
24. Every bone has a flexion - extension respiratory movement.
25. THINKING is the simplest thing you can do so THINK.
26. There is no specific thing for fixing a problem. so FIX WHAT YOU FIND.

27. Wisdom is a combination of knowledge and experience.
28. Most dislocations are inferior and anterior (extremities).
29. Every Sacral respiratory fault is Secondary, never Primary.
30. Every Cranial respiratory fault may or may not have a Sacral fault.
31. TRY - The worst you can be is wrong.
32. Chiropractic is practiced by the MIND not just by hand only.
33. There is no such thing as an organ dysfunction but the real problem is LACK OF SUPERVISION OF AN ORGAN.
34. Muscular constitution is responsible for structural constitution.
35. The body does not answer complicated questions with simple answers and vice versa.
36. YOU CANNOT PRACTICE CHIROPRACTIC BY GUESS AND BY GOD!
37. Failure is your best ally if you have the guts.
38. Prove your work on the most valuable Lab instrument you have - YOUR PATIENT.
40. Fixations are not out of place - they are stuck in place.
41. Have all the techniques of observation at your fingertips.
42. Muscles move bones, bones don't move muscles - De Jarnette.
43. We talk NERVOUS SYSTEM and act out BRUTE FORCE.
44. Muscle testing - Body language
Body Language - Innate intelligence
Muscle testing - Innate intelligence
45. Don't insult the vertebral column if you can't FIX the problem.
46. Luther said. "is is IS".
47. We analyze man on the main source of irritability - the I.V.F.
48. All the good Vertebrae are taken!
49. Sometimes people have more than one thing wrong with them.
50. Some patients complain that if they are not all better then they are no better.
51. Palmer said: "The body is a perfectly working organismic machine - implying it heals itself".
52. Hardly ever does a muscle contract - it reacts.
53. Treat your patients like they are in your home.
54. Emerson said: "No one will ever consider you inferior without your consent".
55. The same power that made the Body heals the Body.

56. If you know WHAT the problem is you can solve the problem.
57. The body doesn't use the Synthetic Vitamins, it responds to them.
58. In Gait your cash should be equal on both sides.
59. Anytime you attract the patients imagination you increase your referrals.
60. Where the problem is, it AIN'T.
61. When a patient gets weaker he implements or recruits other muscles.
62. Don't adjust the Vertebra WHEN you challenge.
63. The Nervous System becomes your instrument, your agent, your method of demonstrating your results to your patient.
64. Are YOU having a LOVE AFFAIR WITH BONES.
65. SOMETHING works once in a while, upside down, Wednesday night in a canoe.
66. Always put the credit back on the patient - remember HE is the one who responds.
67. Show the patient how amazing his body is.
68. When you test a muscle you are not testing a muscle - you are testing the NERVOUS SYSTEM - muscle testing is an indicator.
69. Limited motion is like a speck of dust in your eye, it is all proportional to the trouble it causes.
70. T.L. with BOTH hands - it utilizes both sides of the brain.
71. Gravity is your friend and enemy.
72. Most people stand on their feet and they get tired - STAND ON YOUR HEELS.
73. Tell the patient that this is not your problem but theirs and that they have to take care of it.
74. We are too anxious to be therapeutic giants while only being diagnostic midgets.
75. In the body nothing happens at random - it is governed by LAW.
76. Get into it - find the problem, then have some therapeutic options.
77. DOCTOR means TEACHER.
78. When placing the patient tell them to put their head here, their feet there and the rest of their body in between.
79. Most often the simplest thing is the most complicated thing and vice versa.
80. You must do the right thing in the right place at the right time.
31. Could I ask you to take off your shirt, coat and undershirt, and not necessarily in the same order.

82. Two heads are better than one, as long as they are not on the same person.
83. We have the opportunity to improve the quality of life of each individual.
84. Some people feel bad at some times and are not good at other times.
85. In Applied Kinesiology we are a Therapeutic Innovative group.
86. We don't see with eyes that see, we don't hear with ears that hear.
87. Be neutral, don't let your ego get in the way.
88. This patient had had everything ... even a consultation with a great man.
89. It is very hard to be a hero to your former mother in law.
90. Symptoms never give up because we don't know how to put them together.
91. Everything you know about your body is true but it takes work to make it come true.
92. There are many things that are physiological trivia that make sense when we look at them.
93. The brain can learn to do anything, given the opportunity.
94. I credit Wally with many things he didn't do, but I like to talk about.
95. You don't HAVE to win, it IS possible to lose.
96. The Rightbrain watches the store while the shopkeeper is out.
97. Once you understand - then you know.
98. The alternative to drugs and surgery will not be a pop & pray practice.
99. Applied Kinesiology is very simple: find what is wrong, fix it, then leave it alone. Function with precision.
100. There is more to a person than you can hit with a stick.
101. An expert is an ordinary guy from out of town.
102. With this great intellect that I have, I figured that something was wrong.
103. Every time someone agrees with me I think they are smart.
104. The startle and dazzle technique begins when you test the side of the body that isn't the problem.
105. If there is anything I have learned over 40 years of practice it is this - if it is obvious it is wrong.
106. One of the greatest problems in chiropractic is to decide what not to do.
107. A new publication can be classified a good book if it mentions my name at least four times.

108. A sloppy chiropractor is so successful because he usually corrects fixations.
109. Fixations are the boon of the unskilled chiropractor.
110. Some volunteers are not chiropractic virgins.
111. When you do it you don't have to talk about it - other people will.
112. We have no problem muscle testing different nationalities - we use an interpreter.
113. Muscle testing is the most beautiful peer review you will ever have.
114. There is no substitute for skill. Knowledge plus wisdom plus experience produces skill.
115. Wisdom with practice is joy.
116. What we do works because the principle is right.
117. Don't give the patient such a new hurt they don't remember the old one.
118. The beloved symptom occurs when you recognise the patient's problem.
119. Don't deceive yourself and don't deceive the patient. Be honest with yourself and honest with your patient - your face will show it.
120. The healer within can be approached from without.
121. Man is the most economical of all human beings - he does not stand on flexed limbs.
122. The nervous system relies on the all or none law.
123. Not everything is all bad all of the time.
124. Sometimes you have to treat the patient that has the problem and sometimes the problem has the patient.
125. You can expect what you find when you are skillful in what you do.
126. Nothing is better than the put up or shut up routine.
127. Ceremonies have little effect other than distraction on the patient.
128. Your body is like a watch, made with fine precision. Correction needs to be done by a skillful worker.
129. Many times the very thing you are taking is the very thing causing the problem.
130. The only thing the coronary by-pass doesn't by-pass is the cash register.
131. If it is obvious it is wrong.
132. The good Lord didn't make a mistake we just need to understand it.
133. When you are dieting be careful your body doesn't say "Charlie, there is a famine coming!"

134. We lack historical retrospective background knowledge of many problems.
135. Whatever you do, change something.
136. Nothing is more obvious than when something is wrong.
137. A better human being sees things as they are.
138. You only keep what you give away.
139. I am a creationist - not an evolutionist.
140. What you are not up on you are down on.
141. The more scientific you become the more blinded you become to seeing what you can see.
142. I soon found that no-one knew anything, but it was not held very carefully secret.
143. The usual reason for a referral - to try and get rid of the patient.
144. You can do things precisely wrong with good intentions.
145. D.D. Palmer was a transcendant genius.
146. There are people who have a pill for every ill.
147. We say, "I'm A.K., you're A.K.".
148. Applied Kinesiology is not a departure from chiropractic but a penetration of chiropractic.
149. Always test the muscle on the other side first, never test the involved side.
150. "Don't give me the facts that don't fit with what I know", is a common misgiving a doctor may think.
151. My mind often tells me to ask the right person - the patient.
152. We can have the best of intentions but not know where the switch is.
153. There is no problem with the patient, the problem is with the doctor.
154. Seratonin is harrytonin's sister.
155. The monitor of spinal fluid flow is the jaw.
156. The reason you yawn is to re-program and supply spinal fluid.
157. If there is anything I have learn't, it is "if it is obvious it is wrong."
158. There is more in heaven than you can possibly imagine.
159. Man is the pinicle of God's creation.
160. If you can't find out the problem it is not the patient's fault but your fault.

161. Would another chiropractor tell another chiropractor the truth?
162. With Applied Kinesiology you have an intimate conversation with the patient.
163. The body is an elegant creation with great politeness and also great tenacity.
164. Guaranteed, if I can't find a fault I will make it.
165. High heels are made for sitting down.
166. You don't choose your posture your posture chooses you.
167. Most pelvic faults are innocent until proven guilty.
168. Anytime you are aware of part of your body there is something wrong with it.
169. You shouldn't have to remember how to keep correct posture.
170. See what you look at, look at what you see, then do something to change it.
171. People who are level headed usually are, people who aren't usually aren't.
172. You do more than see with your eyes, you level your head.
173. Patient may say, "how long do I have to keep coming here?" A good answer is until I get someone to take your place.
174. No matter what happens never be surprised.
175. The body heals itself, let it.
176. The way to be successful is not to say but do it.
177. I talk to myself.
178. Why should I put my reputation on the line for your performance.
179. Establish something you can measure, then measure something.
180. If you can't sink, you have got to do down swimming.

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CO-FACTORS

by James R. McGlinn, D.C.

Abstract: Different parts of the body work with each other to perform certain functions and, sometimes for diagnosis, need to be tested as such. If two parts are factors in a specific function (i.e. stomach and small intestine in digestion), they should be tested together since that is how they function.

The human body is a truly remarkable entity. It can run marathon distances, create new life, and turn food into its own tissues. It consists of trillions of different parts working together for the good of the total organism.

I was watching someone parallel park his car and thought about the incredible amount of co-ordination taking place that we all take for granted. The driver first calculates whether the space is large enough to park in, lines the car up, watches the traffic, puts the car in reverse, turns the steering wheel, rechecks the traffic, and uses both clutch and accelerator in relation to the turning of the steering wheel. All of this is being done at the same time, and is constantly being re-evaluated and changed as the car moves into the parking space. Add to this the intricacies of muscle function that we all know and you cannot help but be in awe of the capabilities of the body. The point I'm making is not how wonderful the body is, but that all parts

act together--not one of them alone can park the car. They are all co-factors in the parking of the car.

Just as the musculo-skeletal system works together to perform a function so also do all systems act together within the body(respiratory and hormonal systems, G.I. tract, etc.). In Applied Kinesiology, we usually test one organ or muscle at a time. We therapy localize to the organs, i.e. the NL, NV, alarm, but we're not necessarily testing how the organs are functioning in relation to one another. Since they function together and communicate with each other, they should be tested with each other.

What happens when digestive disturbances continue even after all muscles and organs relating to this area are strengthened? Suppose the stomach and small intestine (or any other digestive organ) test strong indicating normal function, but due to some problem, possibly with inter-communication, they are performing out of synchronization with each other. It's like the wide receiver that cuts to the right and the quarterback that throws to the left. The pass pattern may be beautifully run and the pass beautifully thrown, but the ball falls incomplete because they did not function properly in relation to each other. The stomach and small intestine may be doing the right things, but if they are not properly co-ordinated there can be malfunctions within the digestive system. To measure the function of the two organs together you can test both organs simultaneously. This can be done

by therapy localizing NLS, NVs, etc. of both organs and testing a non-related muscle, or by testing a PMC or Quadriceps and therapy localizing to a small intestine or stomach reflex. Both the stomach and small intestine are important in digestion, but each cannot do it alone. They are co-factors in the process of digestion.

These concepts have been used before in AK. We have tested the large intestine with the lips and breasts in constipation, and the pituitary with other organs, especially the thyroid. No organ works alone, but only in conjunction with other organs and parts of the body can it accomplish anything beneficial to the body. The combinations you can use in testing the organs is virtually limitless, as all parts work with each other. Once you find a co-factor weakness, it can be treated by standard means. Usually one of the organs is more important to treat than the other--a fact which can be discovered by seeing which reflexes and nutrition counter the combined weakness.

It is important to remember that the human body works as a unit, and its parts sometimes need to be tested to determine how they are functioning as part of that unit. This paper has primarily dealt with the organs, but the muscles, too, work in combinations, and occasionally need to be tested as such. Gait testing is an example of co-factor or combined muscle testing. Living in Vermont, one sees a

number of problems relating to cutting and splitting wood. The Gluteus Maximus and Latissimus Dorsi are two muscles used extensively in splitting wood and at times a weakness will only show up when they are tested at the same time. They can be strong in the clear, but one or both weak when tested simultaneously. They, along with other muscles, are co-factors in splitting wood.

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Diagnosis and Treatment of Allergy using AK

by Anu de Monterice, M.D.

This paper discusses a way to test for an allergy problem by using two new acupuncture points for therapy localization, derived from Dr. Voll's work. A method of testing for specific allergens is described, followed by a description of treatment utilizing these points as indicators.

Dr. Reinhard Voll, an acupuncturist and physician from West Germany, has discovered new acupuncture points and channels which are of great importance in the preventive practice.¹ Like the Conception Vessel, these channels are not called meridians since they are not known to have tonification and sedation points, connecting points, command points, etc. One of these channels is called the Allergy or Allergy Degeneration Vessel. Only the distal points of the Allergy Vessel have been mapped. They lie on the ulnar side of the dorsum of the middle finger.^{1,2}

Figure 1. shows three allergy points: AD 1, 2, 3. According to Dr. Voll, AD 1 relates to a) the skin of the lower portion of the body, including the lower extremities, and b) the organs in the abdomen and lower pelvis. It is also involved with sensitivities to chemical substances in the environment. AD 2 relates to a) the skin of the upper portion of the body, including the neck and the upper extremities, and b) the organs in the chest and neck. AD 3 relates to a) the skin of the head, and b) the organs in the head, the oral cavity, and the sinuses.²

One year ago I began checking all new patients for therapy localization to these points. After several months, I stopped using AD 2, never having found it to therapy localize. It is possible that persistence would have established an indication for its use. Perhaps if I had tested more patients with asthma or rashes on the arms, I would have seen it therapy localize. In any case, I continued to use AD 1 and 3, finding these points to be very useful in diagnosis and

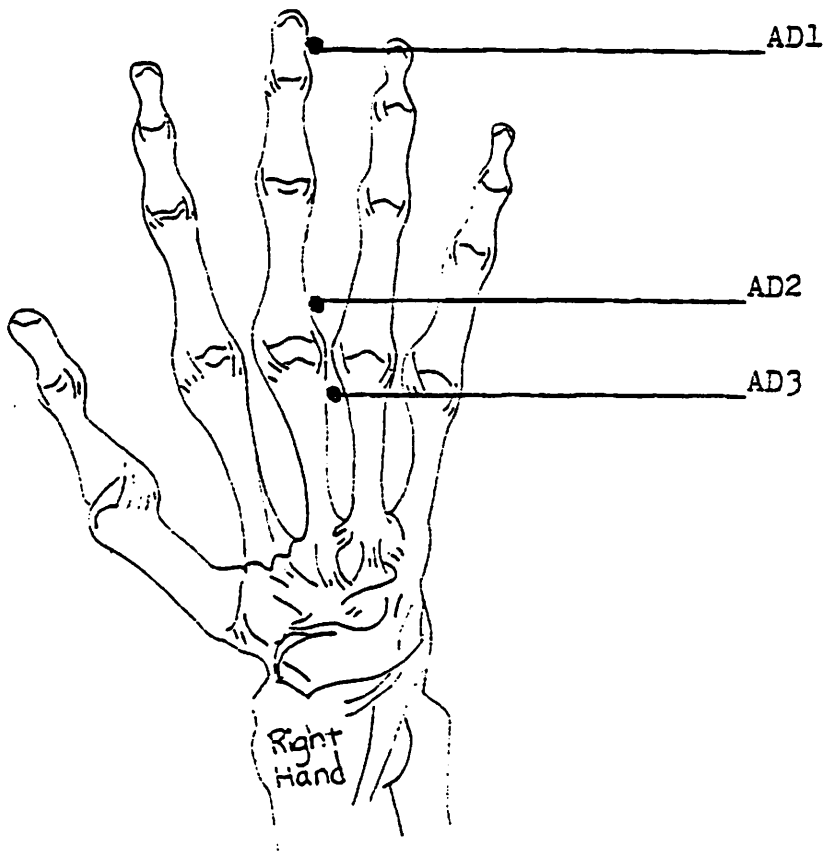


Figure 1.
Allergy Points as discovered by Dr. Voll

therapy.

AD 3 will therapy localize in cases of allergic headaches, allergic rhinitis and sinusitis, allergic conjunctivitis, allergic bronchitis, and cerebral allergy. AD 1 will therapy localize in cases of allergically-caused abdominal pain, gastroenteritis, cystitis, or any interference with organ function in the abdomen due to allergy. ... Pollen, mold, dust and dander allergies usually show up an AD 3. Foods, preservatives, coffee, sugar, and hydrocarbon allergies, when they cause nervous disorder, will usually show up on AD 3; if they cause digestive problems they may localize on AD 1. In any single case either or both points may therapy localize.*

In cases with current symptoms, one or both of these points will practically always therapy localize. In some cases RNA or choline or physostigmine may be needed to uncover the diagnosis.³ This does not happen often. It occurs more frequently if the patient has intermittent symptoms and is not suffering at the time of the doctor visit. In occasional instances of intermittent symptoms neither point will therapy localize, even with these aids. In other words, if either allergy point therapy localizes, you can be sure the person has an allergy problem. But lack of this reaction does not necessarily rule out the problem.

In my work I have almost exclusively used the allergy points on the patient's right hand. I have not found using points on the left hand to add any more useful data.

TESTING SPECIFIC ALLERGENS

In Applied Kinesiology treatment of the underlying causes of a patient's allergic tendencies has been emphasized. These include hypoadrenia, hypoglycemia, and hypochlorhydria.⁴ However, it is also important for

* These points may be therapy localized by the patient or the doctor; however, if the doctor does the localizing, he must be aware of the possibility of a false positive reading if he himself has an overt or latent allergy.

the patient to know specifically what he is allergic to, so he may avoid the allergen until his system is strong enough to handle it. Later in this paper we shall also describe a treatment based upon this knowledge. Now we shall describe how to test for specific allergens, using the described allergy points.

In a patient with suspected allergy, let's say that neither AD 1 or 3 therapy localizes. In that case, one may proceed as follows. First, place the suspected allergen in the patient's energy field.* Localize AD 1 and/or AD 3 and test a strong indicator muscle each time.

Now, in the case of allergy, a strong indicator muscle will often go weak when the allergenic substance is placed in the person's energy field, even without localizing the allergy points, especially if the Pectoralis major clavicular or Latissimus dorsi muscles are used. However, in a small but definite minority of cases, the patient will not test weak until AD 1 or 3 is localized. Thus use of these points will make your testing more accurate. This method is more sensitive than testing all 12 meridians.

In the testing, the allergen used may be the whole substance (e.g. an apple, a collection of dust from the patient's home, animal hair from a pet, food dyes purchased at the supermarket, etc.) or it may be the allergy extract or dried antigen, in a glass vial or plastic bottle.** One must be aware that if a commercial, sprayed apple is used, and the person tests allergic, he may be reacting to the pesticide on the peel and not to the apple itself. One must then either peel or wash the apple and retest.*** With sprayed oranges, the insecticide may penetrate the peel and contaminate the whole orange. Thus one must use an unsprayed orange, or the prepared extract or powder, to differentiate between sensitivity to pesticide from sensitivity to orange.

* For example, it may be placed in the hand or on the abdomen.

** These may be obtained from Hollister-Stier, the large allergy supply house with outlets in various states. The main office is in Spokane, Washington (Box 3145 T.A., Spokane, Wash.). Unless otherwise specified, all the allergy material mentioned in this paper may be obtained from this firm.

*** For washing I recommend either a very dilute solution of chlorox, or an organic cleanser such as "Heavenly Horsetail Natural Organic Herbal All-Purpose Cleanser".

The use of allergy points will show pesticide sensitivity when other means of testing may not.

Hydrocarbon sensitivity is an important entity and may cause a wide range of symptoms, including cerebral disturbances.⁵ This allergy may be tested by using numerous substances, including 1) an extract of automobile exhaust,* 2) synthetic ethyl alcohol 3) an indelible "magic marker" type pen 4) preservatives.** Another test for an important hydrocarbon is to have the patient take a whiff of gas from a gas stove, after blowing out the pilot light, then test. This "in the field" test may also bring on the patient's symptoms of which he is complaining.

Pollens are tested by using prepared extracts of specific pollens important in your area, including those from trees, grasses, and weeds. These may be purchased already prepared, or may be made by oneself.***

In testing for suspected items, mold may be gathered by the patient from his home, or a commercially prepared extract may be used. The best extract for mold testing is a mix of the mold family, named Dematiaceae. It should be emphasized that mold allergy can cause more than just an allergic rhinitis, but may cause various complaints, including disorders of the nervous system.⁶ Dust sensitivity may also cause more symptoms than commonly thought.⁷ In addition to house dust extracts, extracts made from mites are useful for testing (tiny house mites may be a factor in some dust allergies).

The doctor may feel that in testing specific allergens, substance in the patient's mouth, or perhaps having him inhale it as in the case of testing natural gas, is more accurate than merely placing the allergen in his energy field. I have not found this to be so. Considerations of time also militate against routine testing by having patients chew a bite of a particular food, or by putting a few drops of a dilution

* This is obtainable from Dr. Harris Hosen, 2649 Proctor St., Port Arthur, Texas 77640.

** An extract containing a mixture of preservatives and additives is also obtainable from Dr. Hosen.

*** The pollen bearing part of the plant may be put into a blender or juicer with water, strained, and mixed half and half with glycerin and put into a vial for testing.

of the antigenic extract on his tongue. For the patient then has to wash his mouth out, and the doctor may have to do some energy-restoring procedure to return the patient to a state where the next substance can be tested. One may perhaps wish to do this, especially in the skeptical patient, to confirm the diagnosis. But it is too unwieldy a procedure on the whole. Another major drawback is that testing in this manner may provoke a full-blown allergic reaction in the office.

Let us return to the case of our hypothetical patient. If on the initial testing, one of the allergy points therapy localized, then we know he has an allergic problem. Then to do the specific allergy testing, we need first to temporarily abolish this therapy localization. This can be done by stimulating the allergy point in the right ear. The patient will then show a temporary return of the therapy localization when the substance he is allergic to is placed in his energy field.

The auricular allergy point is pictured in the diagram in Walther's book.⁴ However, its location is not on the rim of the helix, but on the underside of the fold of the helix.⁸ It may be stimulated by electro-acupuncture (50 microamps, 10 Hertz), needle, pencil, or stem of a Q tip for a few seconds. Then recheck the therapy localization: it should be neutralized. Do not stimulate the allergy point too long or you may prevent the specific allergy from manifesting in your subsequent testing.

TREATMENT

In all allergies, correction of hypoadrenia and hypoglycemia is crucial. In food allergies, hypochlorhydria and/or pancreatic enzyme deficiency should also be corrected. Certain vitamins, especially Vitamin C, B6, niacinamide, and pantothenic acid need to be considered. The food-sensitive patient should avoid the foods he tests allergic to, for at least 3 months. Most allergies are not fixed, but will change. For someone with multiple food allergies, the 4-day rotational diet is prescribed.^{9,10.}

For mold allergies, the patient should try to reduce the amount of mold in and around the home. Bathrooms, closets, basements and all damp places should be checked. Basements may be painted with a mold-inhibiting paint. Indoor plants and dried flowers may contain mold and may have to be discarded or given away. Going away for a weekend and leaving out pans of formaldehyde in the house will kill mold. Of course, the house must be thoroughly aired upon return.

For those allergies where the allergen cannot be avoided completely, such as pollen, and including dust and mold, one can administer a dilution of the antigen in what is termed a "neutralizing dose". For pollens, this is done during the season in which the patient is symptomatic. The dilutions are made by serially diluting the original extract, one part in five: for dilution #1, 1 ml of the extract is mixed with 5 ml of water and glycerin (or saline with phenol), for dilution #2, 1 ml of #1 is mixed with 5 ml of water and glycerin, etc., on up to the 9th dilution. One then tests to see which dilution(s) will abolish the therapy localization of AD 3 (or 1) produced by the original extract. In most cases 3 dilutions will work, usually #4, 5, and 6, but this varies. In this example, the middle dilution (#5) is then selected. A 1 oz. solution of 50% glycerin/ 50% water, with the same strength as dilution #5 is made and given to the patient, to take 8 drops under his tongue 4 times a day. A single solution may be similarly constituted with a mixture containing dilutions of several pollens to which the patient tests allergic. One may make up a dilution containing a mixture of, for example, rye grass (dilution #5), pigweed (dilution #6), and mold (dilution #4).

Hydrocarbon-allergic patients must make an effort to avoid as many offending substances as they can. This is difficult to do in this day and age, but it often means trading in their gas stove for an electric one, and even changing their home heating system. Neutralizing doses of hydrocarbons may be given as described for pollens.

There are two homeopathic remedies which are extremely useful for allergy patients. One is Apis Mel,² or homeopathic honey bee, in the strength of 3x, 6x, or 30x (muscle-test to see which restores the energy to the allergy point). The idea behind using Apis Mel is that being stung by a bee sensitizes a person to become allergic to other things, and that giving the remedy desensitizes. Especially for pollen allergy, it is quite effective, taken 4 tablets dissolved on the tongue, 4 times a day. The other remedy is homeopathic chlorox, in the same dosage.¹¹ This is best for chemical allergies, and all allergies manifesting at AD 1. *

* These remedies are obtainable at Standard Homeopathic Company, P.O. Box 61067, Los Angeles, CA 90061

The combination of Apis Mel and neutralizing dose of pollen is highly effective in seasonal allergic rhinitis. If asthma is present it may not work, but if symptoms are confined to the head it is 90% effective. In some cases, after a few weeks of treatment, the remedies may be discontinued entirely. In other cases, the neutralizing dose needs to be continued throughout the season.

In summary, the doctor can often tell whether his patient has an allergic problem by therapy localizing two of Voll's Allergy Points on the hand. Accuracy in allergy testing may be enhanced by using these points, and treatment is facilitated by testing which dilution of allergen or which homeopathic remedy will abolish the therapy localization. It is possible to do this complete diagnosis and begin treatment as described as part of the initial work-up of the patient, on the first visit. The patient is then seen for his next visit in two weeks, at which time marked improvement will usually be noted.

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ENHANCED AK DIAGNOSTICS
WITH THE USE OF CHOLINERGICS

by

Anu de Monterice, M.D.

This paper reports on fourteen symptomatic medical patients who did not show any acupuncture meridian imbalances on AK testing until the cholinergic compounds choline or physostigmine were placed within their energy fields. Some theoretical background and discussion of these findings are presented.

Applied kinesiology is an excellent diagnostic tool in the practice of preventive and alternative medicine. Yet in a small percentage of patients, including those with obvious medical problems, AK testing is uninformative. These patients, some of them on medication, some not, do not show any muscle weakness either "in the clear", or on therapy localization of organs, alarm points, other acupuncture points, or on Diamond's hemisphere imbalance test. Yet they are suffering and must have imbalances in their energy systems. The question is how to bring these imbalances out.

Goodheart¹ has shown that Ribonucleic acid is one substance which may uncover the imbalance. RNA is

hypothesized to be involved in enhancing body memory, and experimental data confirms that it plays some role in memory function.²

Recently, I have examined fourteen patients, some with known and some with unknown medical problems, who have not shown any energy imbalances on AK testing as described above. Nor did use of RNA (chewing up to eight tablets) reveal the problem.

It was this experience which led me to look for other memory enhancers that might uncover the imbalances in these patients.

Acetylcholine is an important neurotransmitter in the central nervous system. It is involved in body movements and has a role in the control of mood and memory. In the peripheral nervous system, it contributes to parasympathetic tone, and is involved at interneuronal synapses and certain autonomic effector organs.³ Its precursor in the diet is choline. Cohen and Wurtman have shown that diet supplementation with choline increases the concentrations of serum choline, brain choline, and brain acetylcholine in rats.⁴ In a study at Northwestern, healthy adult humans were administered choline which produced an increase in cognitive functioning compared to controls.⁵

When choline tablets were placed in their energy fields, seven out of the fourteen patients showed the relevant energy imbalances. The tablets were choline dihydrogen citrate, 650mg. each. Fifteen to twenty of them

were placed in the bottle cap on the patient's abdomen. As with RNA, choline does not produce the imbalance because of any toxic effect, but merely uncovers the problem. The patients who responded were: (1) two cases of reactive hypoglycemia, proven by Glucose Tolerance Tests, who showed weak adrenals, (2) two cases of lung meridian disturbance in patients with respiratory infections, (3) one overactive thyroid meridian in a case of suspected thyroiditis, (4) one adrenal weakness in a case of ulcerative colitis, in remission, being withdrawn from prednisone, and (5) one instance of spleen hyperactivity in a case of intermittent fever, suspected to be a relapse of malaria. This left seven patients who show no imbalances, with RNA or choline.

The neurotransmitter acetylcholine is normally destroyed by cholinesterase. Thus, administration of cholinesterase inhibitor, if it will pass the blood-brain barrier, will lead to increased acetylcholine brain levels, and presumably enhance memory. Such a compound is physostigmine, an alkaloid derived from the calabar bean (*Physotigma Venonosum*). It is marketed for intravenous use, as physostigmine salicylate, to reverse the toxic effects of plants and drugs having anticholinergic action, such as Deadly Nightshade (*Belladonna*) and Jimson weed, atropine, scopolamine and tricyclic antidepressants. Physostigmine has enhanced memory in a group of normal adults tested at Stanford University.⁶ It also will

quickly change the mania of a manic-depressive patient into a depression.⁷

The remaining patients were tested with from one to four ampules of physostigmine on their abdomen. Each ampule contained 2mg. of the drug. The imbalances in all seven patients were then revealed. These seven patients were:

1. One case of angina pectoris, with 90% closure of the left anterior descending coronary artery, proven by angiography. He showed overactive heart and liver meridians, with the heart problem showing priority. He also showed therapy localization of L3 bilateral, and CS7 on the left (Voll's measuring point* for the left coronary arteries), and Voll's control measurement point** for the left heart. This case was especially interesting because he had been previously tested by EAV diagnosis,*** on the Dermatron. The AK testing, with physostigmine, duplicated the EAV heart findings exactly.

*Dr. Reinhardt Voll has correlated specific acupuncture points with specific organs or parts of organs, and uses a sophisticated detection apparatus, the Dermatron, to diagnose energy disturbances in these points. This method is called EAV, Electro-acupuncture according to Voll. (Some of his points are new and not found in classical acupuncture).⁸

**Ibid.⁹

***Ibid.¹⁰

2. One case of a fever, with a flu-like syndrome, who showed thymus and adrenal weaknesses.
3. One case of otitis media and externa, who was improving with treatment, showed an uncovering of TW17* therapy localization, as well as therapy localization of the ear itself.**
4. Two cases of hypoglycemia, improving with treatment but still with some symptoms, had their adrenal weaknesses uncovered.
5. One case of malaise and irritability, showed a spleen overactivity.
6. One patient with overt paranoid schizophrenia showed a disturbance in the Conception Vessel.

Except for the patient with ulcerative colitis, none of these people were on medications other than nutritional supplements, herbs or homeopathic remedies.

One question that arises is why physostigmine worked in those cases where choline did not, since both are cholinergic. One possibility is that not enough choline was used. However, I think other explanations are more likely. The data are consistent with the idea

*TW17 is Voll's measurement point for the middle ear¹¹

**The patient places his fingertip in the external auditory meatus.¹²

that patients who need chlinergics to bring out AK imbalances may be divided into two groups: subjects who have a relative deficiency of Acetylcholine precursors (who respond to choline), and subjects who have an excess of cholinesterase and therefore breakdown acetylcholine too quickly (who respond to physostigimine). In retrospect, it was recalled that two of the patients in this series actively complained of poor memory. Unfortunately, no tests of memory function were done on these patients, nor were they carefully questioned with regard to their memory ability.

Another explanation for the effect of physostigmine compared to the choline is that physostigmine may have other properties besides its cholinergic one. Intravenous physostigmine has been found to reverse rapidly the diazepam (valium) induced sleep produced in human volunteers¹³, or in animals.¹⁴ Diazepam is not known to be an anti-cholinergic drug. Physostigmine also can reverse delirium caused by amantadine, a medication used to treat Parkinsonism and drug-induced extrapyramidal reactions.¹⁵ Amantadine is thought to enhance another brain neurotransmitter, dopamine, but to have relatively few anticholinergic effects.¹⁶

In other experiments using choline and physostigmine to bring out hidden problems, it was found that one vial of atropine (1mg.), within the person's energy field, will counteract the effect. Since atropine is an anti-

cholinergic drug, this is added evidence that an important part of the effect of choline and physostigmine is due to their cholinergic activity. It is of interest that homeopathic physostigmine (30x) will also abolish the effect of either choline or physostigmine. Further research is planned with other cholinergic compounds, including acetylcholine itself. It would also be interesting to work with substances related to other nerve transmitters such as epinephrine, nor-epinephrine, serotonin, etc.

With regard to Diamond's cerebral-balance testing¹⁷ there were nine cases of left dominance and four cases of right dominance in the fourteen cases. All the cases of left dominance had primary disturbances in meridians which have mid-line alarm points, and the cases of right dominance had disturbances in one or both sides of the paired alarm-point meridians. This correlation is exactly as Diamond has stated¹⁸; the sole exception is that the one case of otitis showed neither a hemisphere imbalance nor an alarm point acupuncture disturbance. No attempt was or will be made to relate the findings in this study to Diamond's ideas of parasympathetic versus sympathetic dominance.

We need now to deal with the issue of chewing a pill or pills versus placing these pills within the person's energy field or aura. The officially AK approved way to use RNA, for example, is to have the

patient chew anywhere from one to eight pills. Patients do accept this procedure, but many complain of it, the chief complaint being that it sticks to the teeth. Nucleic acid is, of course, acidic, and this may be detrimental to the teeth. Also, it means water must be provided to the patient and the examiner may have to wait while the patient tries to flush the RNA from his mouth. The whole procedure is time-consuming in a busy practice. Yet if it is not done, one stands the chance of missing significant problems. If one then adds to this the requirement of having the patient chew one to maybe ten choline tablets in a second procedure, the time element becomes prohibitive, and patient acceptance declines. Physostigmine is produced for intravenous or intramuscular use; so the practitioner would not give this orally. Nor should he inject it, when a simpler procedure will do.

Thus, in my study I have used choline and physostigmine, each placed on a metal bottle cap and the cap placed on the patients abdomen.*

*I have found, to my surprise, that the whole unopened bottle of choline tablets, or the whole unopened package of physostigmine ampules, placed on the person's abdomen or held in the hand, will not show the desired effect.

This is done very quickly and the patient retested. I have since begun to use the same procedure with RNA tablets, and find that it works as well as using RNA orally.

Many of us, including the writer, want to be accepted by the rest of the scientific community, and feel that it is easier to explain how RNA might work when the patient chews it, and more difficult if we merely place it in the patient's aura. But science is the pursuit of truth, and the truth is, it works just as well on the patient's abdomen as it does in his mouth. Science does not advance by hiding the truth, but by looking at it squarely in the face.

In addition, other respected disciplines in the holistic health field that deal with energy do testing by placing substances on the patient's body, or within the energy field of the testing instrument. In the first instance, there is auricular medicine, the field developed by Dr. Paul Nogier, which has thousands of followers in Europe, and an increasing number in this country. The second example is that of EAV, previously mentioned, which tests the efficacy of different homeopathic remedies by placing the remedies in the field of the test instrument, the Dermatron, while the patient is in the circuit.

Obviously, much work must be done to establish the scientific laws governing such phenomena, and it

will be many years - probably decades- before we fully understand them. As AK practitioners, we can contribute by our own innovative clinical work, and careful observation.

Above all, however, we must remember that our clients are primarily interested in results, not scientific explanations. Patients will accept many "far-out" procedures if by their means they can consistently be led to the correct diagnosis and to a therapy program that assists them in achieving good health.

In summary, diagnosis by means of AK can be improved if the practitioner will use certain memory-enhancing substances to stimulate the client's body to reveal hidden problems. In addition to RNA, these substances are the cholinergic compounds choline and physostigmine.

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LIGHT ENERGY FOR HEALTH

by Emil F. Morlock, D. C.

Abstract: Color and its effect on the human organism; in particular, ultraviolet light.

History: Ann R. is a forty nine year old female who has been under my care periodically since 1967. She has been diagnosed as hypoglycemic with a great number of food allergies, which by necessity, have restricted her diet to fresh fruits, vegetables, beef and exotic meats such as buffalo, caribou, moose, etc.

Ann R. has spent several years in Alaska. During that time, through correspondence and during local visits to her parents who live in this area, our observations continued. The most outstanding observation during these years has been that during the long Alaskan winters, Ann R.'s general health always deteriorated with symptoms bordering on the buzzard.

In 1975 Ann R. returned to Michigan where closer observations could be made. During the winter of 1975, Ann R. developed hypervitaminosis A which was controlled and resolved by altering her diet. A year later, during January of 1976, she developed phlebitis in the left cervical area,

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shoulder and upper arm which had to be treated medically. The following spring and summer her health improved. However, the following winter of 1977 the phlebitis returned to the same areas, more severe than before. Again she was treated medically and the problem resolved.

at this point in time the idea appeared: Why winter? What is similar between Alaska and west Michigan during the winter months? Comparisons showed that Alaska and west Michigan during the winter months were similarly short on sun light. In fact, west Michigan has over all more cloudy days. at this time I happened to read a book called, "The ancient Art of Color Therapy" by Linda Clark.¹

The first symptoms of phlebitis began appearing again in December of 1978. Ann R. was checked out by the usual methods of Kinesiology plus the knowledge gained from the afore mentioned book. After clearing all Kinesiological signs, ultraviolet light was introduced for one minute at 36" over the entire posterior portion of the body. Ann R. was rechecked and found to have improved on previously tested weak muscles. Ann R. was dismissed and told to return in three days. Her unsolicited remarks at that time were that she had more energy than in a long time and that there had been a marked reduction of symptoms plus an over all feeling of well being.

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With this encouragement, a schedule was set up of a one minute exposure to the cervical, shoulder and arm area where the phlebitis seemed to have originated. Also, a two minute exposure over the entire spine posteriorly at a rate of twice a week was started. This schedule was followed for a month with good results. Ann R. was then instructed to buy an ultraviolet light of her own with instructions for home use.

Conclusion: At this writing Ann R. is free of her phlebitis and herazaar symptoms have abated. Her energy levels have improved and her hypoglycemia shows the best control that she has had in quite some time. Her allergies are deminished and she continues using her ultraviolet light twice a week throughout the late fall, winter, and early spring. During the summer months she tans, which was almost impossible previously due to burning which I believe was in the back ground of her over all physical problems.

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CATEGORY II, A HIDDEN ASPECT

by

Joseph A. Pastore, D.C.

ABSTRACT:

This paper presents validation findings in support of "Category II, The Walking Gait"¹ as presented by Herbert C. Anderson, D.C. in the Collected Papers of the Members of the International College of Applied Kinesiology, summer meeting 1978.

In the 1978 Collected Papers of the Members of the International College of Applied Kinesiology appeared "Category II, The Walking Gait" by Herbert C. Anderson, D.C. In this paper Dr. Anderson discussed a method of diagnosis and treatment, by means of application of applied kinesiology, of a category II that muscle tests negative with a positive sacro-iliac lesion.²

"The Category II pelvic lesion is an osseous fault between the sacrum and the innominate."³

In review, according to Dr. Anderson's findings, a category II phenomenon exists in which there is a positive therapy localization elicited only when

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the patient is placed in the "walking gait"⁴ thereby simulating the proprioceptive feedback effect as created by the walking gait sacro-iliac stress factors.⁵

In my practice on various occasions I have found myself with a patient that did not therapy localize for a category II yet displayed the following: Uneven leg length, sartorius and/or gracilis muscle weakness; associated tenderness with palpation at involved muscle origin and insertion for posterior ilium.⁶ Hamstring weakness, lateral thigh tenderness with palpable tenderness about the lower vastus lateralis, pectineus attachments, and biceps femoris attachment over the ischium for posterior ischium. With both of the above first rib head attachment tenderness was evident.⁷

By applying the approach as presented in Dr. Anderson's paper, "Category II, The Walking Gait",⁸ I was then able to alleviate these symptoms and signs as noted. Upon recheck the positive therapy localization for the category II was also alleviated.

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During the past eighteen months I have encountered thirty-four cases in which I found this to be the case, a category II that would only therapy localize with the patient placed in the walking gait. Correction was then performed followed by an alleviation of symptomatology as well as elimination of the positive therapy localization in all forty-three cases.

I extend my gratitude to Dr. Anderson for the presentation of his paper and to the members of I.C.A.K. for its publication thereby affording me the opportunity to advance my capabilities.

Submitted January 1980

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FOOTNOTES

¹Herbert C. Anderson, D.C., "Category II-The Walking Gait", Collected Papers of the Members of the International College of Applied Kinesiology (Tucson, Arizona, New Life Publishing Co., 1978), pp. 5-7.

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⁴Anderson, op. cit., p. 5.

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FINDINGS OF "MOVEMENT SUBLUXATION"
AS RELATED TO CERVICAL FIXATION

by

Joseph A. Pastore, D.C.

ABSTRACT:

This paper presents validation findings in support of "Detection of a 'Movement Subluxation'"¹ as presented by Gerald Deutsch, D.C. in the Collected Papers of the Members of the International College of Applied Kinesiology, summer meeting 1979.

In my practice on various occasions I have confronted the following situation in which a cervical fixation was demonstrated by therapy localization and corrected by means of the 1-2 motion^{2,3} to break the fixation.⁴ However, within a few days the patient would return with the same cervical therapy localization and associated symptomatology in spite of having exhausted all other approaches within my armamentarium (ie: I.C.V.⁵, Lovett reactor⁶, etc.). At this time a challenge as described by Dr. Deutsch was employed.⁷

Dr. Gerald Deutsch presented the paper "Detection of a 'Movement Subluxation'" in the Collected Papers of the Members of the International College of Applied Kinesiology,

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summer meeting 1979.⁸ In his paper, Dr. Deutsch drew aspects from a prior paper by Dr. Terry Franks entitled "More on Rib Subluxations" as related to therapy localization with movement.⁹ Dr. Deutsch went on to develop the aspect of "movement subluxation" as related to the cervical spine.¹⁰

In review, Dr. Deutsch described having the patient place their cervical spine at maximum rotation with maximum extension. If a previously strong indicator checks weak, challenge is then performed to identify the subluxated vertebrae while cervical spine is still at maximum rotation and extension. Improper challenge will allow the indicator muscle to remain strong. Proper challenge of the subluxated vertebrae will cause the indicator muscle to remain weak. According to Dr. Deutsch the vertebrae is then adjusted into the direction that created weakness with the position of movement that created weakness.¹¹

I have found that in approximately seven to ten percent of cases where a cervical fixation was identified and corrected via applied kinesiology with the "1-2" type motion of correction^{12,13}, this patient returned within a few days with a recurrence of the same. Since the

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last I.C.A.K. summer meeting of 1979, twenty-eight cases have been seen by this office which fall into this classification of recurrent cervical fixations that therapy localize with associated symptomatology.

Dr. Deutsch's method of detection and correction was utilized in these cases.¹⁴ Upon re-challenge for cervical fix by traditional methods¹⁵ and by Dr. Deutsch's method¹⁶, the patients involved proceeded to check clear in all cases with an absence of recurring symptomatology.

In summary I have found Dr. Deutsch's method of detection and correction of a "Movement Subluxation"¹⁷ as related to the cervical spine effective in 100% of cases as noted above.

My appreciation is extended to Dr. Deutsch for the presentation of his paper and to the members of I.C.A.K. for affording me this opportunity to present my related findings.

Submitted January 1980

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FOOTNOTES

¹Gerald Deutsch, D.C., "Detection of a 'Movement Subluxation'", Collected Papers of the Members of the International College of Applied Kinesiology (Tucson, Arizona, New Life Publishing Co., 1979), pp. 65-68.

²Ibid., p. 68.

³David S. Walter, D.C., Applied Kinesiology (Pueblo, Colorado, Systems DC, 1976), p. 28.

⁴Ibid., p. 26.

⁵Ibid., pp. 212-217.

⁶Ibid., p. 24.

⁷Deutsch, op. cit., pp. 66-67.

⁸Ibid., pp. 65-68.

⁹Terry L. Franks, D.C., "More on Rib Subluxations", Collected Papers of the Members of the International College of Applied Kinesiology (Tucson, Arizona, New Life Publishing Co., 1978), p. 128.

¹⁰Deutsch, op. cit., pp. 66-68.

¹¹Ibid.

¹²Ibid., p. 68.

¹³Walter, op. cit., p.28.

¹⁴Deutsch, op. cit., pp. 66-67.

¹⁵Walter, op. cit., p. 26; p. 28.

¹⁶Deutsch, op. cit.

¹⁷Ibid., p. 66.

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THE HUMAN SWITCHING MECHANISM

By

Robert Perolman

This phenomenon was recognized but not identified many years ago by the ancient Chinese acupuncturists. They observed that sometimes it was necessary to treat the opposite side of the body to bring about a successful conclusion to a case that would not respond to the ordinary rules of that science.

In later days, Paul Nogier of auriculotherapy fame made the same observation. He proclaimed that twenty percent of the time it was necessary to treat the ear on the opposite side of the trouble found in the body. He was unable to explain why this was so.

It was for George Goodheart to recognize and identify this perplexing phenomenon. About a decade ago, the founder and developer of Applied Kinesiology explained this mechanism and introduced a method of diagnosis and correction for it. This has made a profound difference between success and failure in many chronic problems treated by the author over many years. It appears that Paul Nogier's proclamation is very conservative. I find it to be over forty percent. This finding has inspired me to place the importance of this test high on the list of things that must be tested, on each and every patient, on every visit to the office.

I have devised an alternate method for diagnosis and treatment of this very important mechanism. It involves therapy localization and is taken from the third level stage of FINGER TIP DIAGNOSIS. It consists of:

1. The back of the right hand is placed over, across, and on top of the back of the left hand. This test is equivalent to K 27 - umbilicus contacts.

2. The back of the left hand is placed over, across, and on top of the back of the right hand. This test corresponds to the umbilicus-coccyx contact.

The treatment is identical for both tests, and is magnetic therapy.

1. The NORTH pole of a 2400 gauss magnet is placed against SP 21 on the patient's right side.

2. The SOUTH pole is then placed on SP 21 on the patient's left side.

3. NORTH pole is placed on K 27 on the right.

4. SOUTH pole is placed on K 27 on the patient's left side.

These contacts are held for about ten seconds each.

This paper is written to encourage more doctors to test all their patients for "switching".

THE ION GENERATOR

By

Robert Perolman

For the past twenty-five years, reports of benefits of the ion generator have reached my attention. For the most part these reports were mostly subjective and of the testimonial variety. People claimed relief of pains, increased energy, improved healing, freedom from asthma, etc.

An owner of a local health food store, who was familiar with AK techniques prevailed upon me to test the several types of generators that they proposed to sell. The owner was primarily interested in the possibility of there being detrimental effects caused by these units.

A generator was placed in my office in the testing rooms as far from the patient as possible. None of the patients were informed of this experiment.

The test for "switching" is made on every patient before any other testing is done. With no exceptions, every patient was "switched", and all efforts to "unswitch" them was futile, as long as the generator was on. All the different types of generators behaved the same way.

As a point of interest, when the ion generator was turned off, instantaneously, the patient was unswitched. The speed that this occurred was similar to turning an electric

light off. The other mode, turning the generator on, produced an immediate "switching". This phenomenon leads me to the following impressions:

1. Ions do not enter the body mainly by way of respiration, but appear to permeate the entire body with the speed of electricity.

2. The "switching" mechanism appears to be electromagnetic in nature.

THE CLAVICULAR AND PUBIC BONE SUBLUXATIONS

James P. Powell, D.C.

The purpose of this article is to bring to the doctor's attention the relationship between the pubic bones, the symphysis pubis, the clavicles and the sternoclavicular joint. It has been the author's experience that often times in a Category I or a Category II patient, in addition to the sacro-iliac involvement, the pubic bone is often times fixated, or subluxated, causing a reoccurrence of the Category I and Category II.

It has been brought out in other articles that the way to diagnose this common malady is through therapy localization and challenge. In a previous article I also presented a way of testing the pelvis as a whole. This is to elevate the patient's legs a few inches from the table and to apply pressure to approximate the feet at the midline. This tests the integrity of the pelvis as a whole directing the right side against the left and vice versa.

After this has been cleared, we found often times, the relationship between the Category problem and the cranial problem is through the craniosacral respiratory mechanism. Also, it has been our experience that the pubic bone and the clavicular bone subluxate often times simultaneously. I have been unable to document that it is a constant right to left, left to right relation-

ship, but I feel that this is the general rule. For example, if the pubic bone is subluxated to the superior on the left, you will find the clavicular bone subluxated inferior on the right. Often times these subluxations clear themselves through proper body balancing, but on those difficult cases, many times it does not.

The masking effect of the clavicular subluxations is often times a bilateral pectoralis major clavicular showing up and there is no true cranial bulge present. You will also find the neck flexors in weakness, not because of a cranial effect, but of a clavicular subluxation. I found great success in adjusting the clavicles by using a DeJarnette lock, or wedge, behind the lower cervical vertebra with the patient in the supine position. Often times by applying a downward pressure to the clavicles at their distal end will release the clavicular subluxation at the sternal junction. Also by stabilizing the clavicle with one hand and rotating the shoulder joint with the other will often times relieve that fixation. It is, of course, wise to therapy localize prior to the manipulation and, of course, afterwards to prove the effectiveness of treatment.

In the last several years I have found that by reducing the structural subluxations and fixations prior to establishing a kinesiological diagnosis is paramount. As we discussed by priorities, it is my feeling that by relieving those subluxations and fixations, the body does balance itself to its maximum potential.

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At that time a more thorough evaluation of the muscle structure is then less time consuming and it has been my experience, more effective for patient results.

It is my desire that this paper will be of benefit to the International College of Applied Kinesiology and I will welcome any comments or criticisms.

ILEO CECAL VALVE AND ENTEROBIUS VERMICULARIS (PIN WORMS)

by L. E. Rarey, D.C.

Abstract: An often overlooked problem that causes recurring ileo cecal valve incompetence is the infestation of pin worms. "Pin worms are found many times in the appendix and surrounding tissues" ¹.

The infestation of pin worms in the human organism is usually overlooked in this age of technical evaluation of the patient. Particularly the patient with vague gastro-intestinal and ileo cecal valve problems that do not respond to normal therapy. It makes one wonder how often this occurs when estimates of the condition varies from 30% ² to 92%³ of the entire population is at one time or another infected. It is the most common parasytic infection in the human being.

Some of the symptoms of pin worm infestation are irregular appetite, hyperactivity, restlessness during sleeping hours, teeth grinding, nose picking, anal itching, thumb sucking, behavior problems, nightmares, vague stomachaches, failure of assimilation of supplements, excessive masturbation in the young female, (caused from pin worms nesting in the vaginal vault causing irritation) and recurring incompetence of the ileo cecal valve.

Diagnosis: A positive diagnosis can be made if the doctor will take stool samples, scotch tape from anal area at night (females come out at night and lay eggs in the anal area) for microscopic examination, and usually the eosonophyle count is high on the differential blood count and sometimes a chronic anemia is present. Usually it is easier to go by the clinical symptoms as listed above and treat the patient accordingly.

The reproductive cycle of the pin worm is from 10 to 14 days- so one must treat the patient several times to be certain to eliminate them. Our method is to use a good non-toxic vermifuge from your vitamin company or health food store that contains figs, garlic or pumpkin seeds. Use the vermifuge for a 2 week period then discontinue for 10 days and repeat. The entire family should be treated. Also, use comfrey pepsin capsules after each meal to remove the excess mucous from the intestinal tract. Check the patient for need of digestive enzymes as some authorities claim lack of enzymes develop a flora for parasites throughout the body⁵ (it is wise to repeat treatment several times a year when you know the patient will be reinfected.) At the end of treatment cool enemas can be given in the evening two times weekly for two weeks. (The worms cling to the intestinal wall and cool water releases them). In the young female, if she has vaginal infestation, cool medicated douches are in order. Be certain to use a small ear syringe for this and be careful not to perforate the hymen. Have patient keep fingernails clipped and wash hands before meals. Wash anal area each morning to eliminate any eggs produced there during the night. All clothing and bedding should be cleaned. Drapes, rugs, etc., should all be cleaned to remove eggs. Thumb sucking should be forbidden.

SUMMARY

1. Test all chronic ileo cecal valve incompetence that do not respond to therapy for pin worms.
2. When treating patient, make certain entire family is treated and all treatment measures are used.
3. Re-evaluate all nutritional needs after eliminating worms.

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COMPARATIVE PELVIC ANALYSIS UTILIZING THOMPSON
TERMINAL POINT TABLE, THOMPSON TECHNIC AND APPLIED
KINESIOLOGICAL PROCEDURES AS PERTAINS TO A CATEGORY II

by William H. Ripley, D.C.

ABSTRACT:

Fifty patients (27 male and 23 female) between the ages of 19 and 77 with primary complaint of low back pain were analyzed with both Thompson Technic and Applied Kinesiology to determine possible similarities of lesion detection and therapeutic correction. It was found that 100% of those with primary Category II lesion also elicited a Derefield-Thompson Pelvic Positive on the same side as the Category II.

The group was divided by means of mode of correction.

INTRODUCTION:

I have always been fascinated watching Dr. J. Clay Thompson work with his Thompson Pneumatic Terminal Point Table as he is a true master and scientist at work while analyzing leg length discrepancies and correcting the spine. We all realize there are many technics within our profession that all seem to work and have value. It was with this in mind that I began to compare the use of the Thompson Technic and standard Applied Kinesiology procedures to obtain the same end result in pelvic category work.

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FINDINGS:

Group A consisted of 25 patients which I examined on the Pneumatic Terminal Point Table and found a Pelvic Positive Syndrome and proceeded to check for a Category II. In all cases I found a Category II present by therapy localization on the same side as the Thompson Pelvic Positive. (all patients were unswitched prior to testing.)

I then corrected the Thompson listing first on the Pneumatic Terminal Point Table and then rechecked for the Category II lesion. In 100% of the cases tested, I found the Thompson adjustment negated the Category II and related Sartorius/Gracillis weakness.

Group B consisted of 25 patients examined with Applied Kinesiology procedures and finding a Category II present I once again established the presence of a Derefield Thompson Pelvic Positive listing on the same side as the Category II.

I then used standard Applied Kinesiology procedures for Category II correction and found that in 100% of the cases tested the Applied Kinesiology correction also negated the Thompson Pelvic Positive listing.

CONCLUSION:

A standard Category II and a Derefield-Thompson Pelvic

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POSITIVE on the same side were equally negated by using either Applied Kinesiology or Thompson Technic while adjusting on the Pneumatic Terminal Point Table.

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VITAMIN A DEFICIENCY TESTED THROUGH MUSCLE TESTING AND
SPECIFIC THERAPY LOCALIZATION...

By William H. Ripley, D.C.

ABSTRACT:

This paper presents validation in support of an article in Family Circle Magazine, February 20, 1979. It pertains to specific therapy localization for various vitamins and minerals.

According to the procedure set forth in the article by Drs. Walter Fischman, C.M.D. and Mark Grinims, D.C., I tested 50 patients with acute upper respiratory problems, primarily sinusitis and bronchitis, for a vitamin A deficiency.

TEST PROCEDURE:

1. 50 patients (28 females/ 22 males) between the ages of 21 and 68 with acute upper respiratory complaints were selected and tested over a two month period.
2. Therapy localization of right eyelid (with left eye open) was performed after unswitching.
3. Patient's histories were cleared for contact lenses, cataracts, glaucoma, etc. before testing.
4. An intact Tensor Fascia Lata was used as an indicator; a 10,000 unit vitamin A tablet was administered sub-lingually to the patients who showed a positive therapy localization to the right eyelid.

VITAMIN A DEFICIENCY

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FINDINGS:

From the 50 patients selected and tested with acute upper respiratory symptoms, all 50 or 100% strengthened following introduction of 10,000 I.U. of vitamin A sublingually.

Patients not on any vitamin A at all were given 25,000 units of A twice daily and asked to return in one week. The vast majority showed a marked decrease in their symptomatic picture.

CONCLUSION:

This test for vitamin A deficiency seems to be accurate, however the article does not give a scientific explanation other than quoted below:

"The muscle response test, how does it work? The muscle response test appears to be related to accupuncture points and the lines of energy used for centuries in Chinese medicine to direct the body's own healing powers. It is an example of how the body can be used as a guide to it's own needs."¹

COMMENT:

I would like to continue this paper at a later date utilizing muscles such as the Popliteus, Tibialis Anterior and Rhomboid associated with vitamin A nutritionally to see if a weakness corresponds to the eyelid therapy localization test.

VITAMIN A DEFICIENCY

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FOOTNOTES

1. Page 146, "The muscle response test, How does it work?" Drs. Walter Fischman and Mark Grinims.

PROCEDURE FOR THE IMPROVEMENT OF
LYMPHATIC CIRCULATION

By Mario A. Sabella, D.C.

ABSTRACT:

This paper discusses some basic aspects of the lymphatic system and the mechanics of lymph movement. Analytical and therapeutic procedures for improvement of lymph drainage are presented in the aim of enhancing the efficiency of the already proven techniques in present use in Applied Kinesiology. This could prove to be a valuable aid in the return to and maintenance of homeostasis vital to the balanced triangular state of health. This technique will be called Lymph flow normalization.

INTRODUCTION:

Our knowledge of the lymphatic system is becoming much more advanced thanks to modern research. The lymphatic system is emerging to be one of the most important systems of the body due to its effects on all the other body functions. Therefore it is important that all necessary measures are taken to ensure the smoothest and fastest possible means of lymphatic drainage in the various tissues.

The already well established lymphatic related techniques as taught by Dr. George Goodheart and already in use in Applied Kinesiology have proven their immense value over the years. If we can, with the use of the procedures presented here, provide a further reinforcement of those techniques, then the lymphatic flow normalization procedures could make a valuable contribution especially where there is localised retardation of lymphatic flow.

The lymphatic system comprises of three units

- 1 - Capillaries which form the initial collecting system; these empty into the
- 2 - Post capillaries which in turn end up into the
- 3 - Major collecting ducts. These eventually empty into the venous system.

The capillaries are made of endothelial cells and are distinguished from the blood capillaries by the fact that the endothelial cells are attached to the surrounding tissues by means of anchoring ligaments. The edge of each cell flaps inwards allowing direct access into the lumen. Fig.1. These flaps act as valves allowing only one way flow. Opening of these flaps is brought about by increase in fluid (edeoma), contraction of surrounding tissues, such as in exercise, breathing or arterial pulsations. It is interesting to note that those endothelial intercellular connections can open up to 100 mu or more as compared to 20 mu for the blood capillaries.

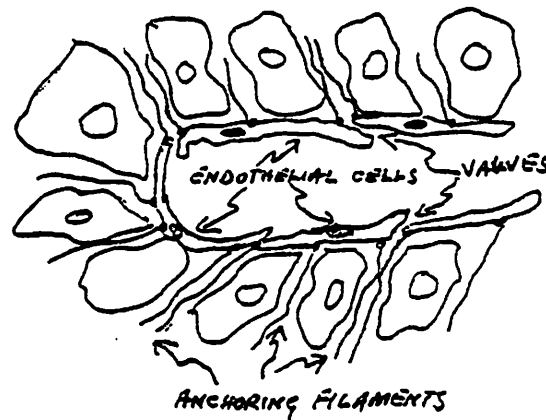


Fig. 1

The post capillaries have the same basic structure as the capillaries except that the internal wall is invested with smooth muscle and hence capable of contracting. They also have a system of valves comparable to those of the venous system except that they are much more numerous.

Collecting ducts are made up of three layers: tunica intima, media and adventitia. The muscular elements of these ducts are found in the tunica media. The tunica adventitia receives the nervous elements and the vasa vasorum. The collectors transport the lymph towards the lymph nodes and from these towards the venous system.

The combination of inherent contraction of the lymph vessels, arterial pulsations, movements of adjacent tissues such as from exercise, breathing and external pressure form what is known as the lymphatic pump. It is important to note that respiration has a tremendous effect on increasing lymph flow towards the left subclavian and internal jugular veins.

At this point we shall consider the formation of the lymph. Firstly let us designate a (+) to all pressures that have a tendency to initiate outflow from capillaries to interstitial spaces and a (-) to all forces acting in the opposite direction. In this instance hydrostatic pressure is (+) and favours filtration while osmotic pressure is (-) and favours reabsorption. In vivo, capillaries are subjected to pressure by the tissues in which they are embedded and which opposes hydrostatic pressure hence (-). In addition the tissues have their own protein content hence exert their own osmotic pressure supporting the hydrostatic pressure (+). The end result is tabulated in table 1.

TABLE 1

	Pressure at Arterial Capillaries	Pressure at Venous Capillaries
Pressure in capillary:		
Hydrostatic pressure ...	+ 30 mm Hg	+ 20 mm Hg
Osmotic pressure ...	- 25 mm Hg	- 25 mm Hg
Pressure in tissues:		
Tissue pressure ...	- 2 mm Hg	- 2 mm Hg
Osmotic pressure ...	+ 4 mm Hg	+ 4 mm Hg
	F = + 7 mm Hg	A = - 3 mm Hg

Here we notice that the filtration forces (F) total a net of 7mm while absorption forces (A) are 3mm. This results in an excess of filtration leading to an increase in interstitial fluids which is destined to become lymph.

It has been shown that pressure applied to an external body tissue, if at the correct intensity exerts a great effect on the lymphatic capillaries. This in turn causes a faster flow of lymph towards the collecting ducts.

From the work of Mislin it was shown that distention of the vessel walls of those ducts, that have their own muscular coat and nerve supply, caused by the extra lymph surge induces muscular contraction. This contraction propelling the lymph towards the collecting ducts. The relationship of external pressure to its effect on internal capillary structures is shown in table 2 prepared by Kunnke.

TABLE 2

External Manual Pressure	Arterial Capillary	Venous Capillary
0	+7mm Hg (F)	-3mm Hg (A)
5mm Hg	+2mm Hg (F)	-8mm Hg (A)
10mm Hg	-3mm Hg (A)	-13mm Hg (A)
20mm Hg	-13mm Hg (A)	-23mm Hg (C)
40mm Hg	-33mm Hg (C)	

Notes: F= Filtration Pressure A=Absorption Pressure
 C= Collaose Pressure

According to this table the correct external pressure should be between 20 and 30mm. A lesser pressure will be ineffective while a greater one would cause collaose of the capillaries hence hindering actual flow. It was exoerimentally found however that the optimum pressure should be between 30 and 40mm to overcome the inherent resistance of adjacent tissue.

DISCUSSION

For some time we have been observing that some patients were having recurring patterns of muscular weakness and needed frequent reactivation of neurolymphatic and neurovascular reflexes. All known reevaluation procedures were used to monitor the sufficiency of stimulation at the time of treatment. Even though all positive indicators were cleared, holding time was still inconsistent. We know that, theoretically, movements of tissues such as muscular contraction improves lymph flow. We therefore reasoned that if we exercised the muscle in question we should have an improvement. We were surprised to find that the opposite effect was obtained - the muscle got weaker. Bearing in mind that we already carried out all known techniques and cleared all positive signs of involvement, we theorised that maybe there is a blockage in the lymph flow at the capillary level, which seems to blow the circuits if the lymph input exceeded a certain volume.

At that time we became aware of a system of manual lymph drainage developed by Drs. Vodder and Asdonk of Germany and we decided to research it. With the help of therapy localisation we started to challenge the directional flow of lymph at the capillary level. We found that when the point of blockage was reached there was an immediate weakening of the strong indicator muscle. We then used a modified technique of manual lymph drainage and we observed that not only did the strength of the muscle maintain with repeated exercise but the technique seemed to have some influence on fascial flushing. On the other hand there was no effect whatsoever on the neurolymphatic reflexes, neurovascular reflexes, or stretch weakness of the pectoralis minor.

The need for fascial flushing was determined on 7 patients, which also showed a corresponding lymph blockage and stretch weakness of the pectoralis minor. Fascial flushing and Pectoralis minor techniques were done and the neurolymphatic and neurovascular

reflexes cleared. Lymph blockage indicators were still positive and lymph flow normalisation had to be carried out separately.

Following that group, a further nine patients were selected at random for need of lymph flow normalisation and fascial flushing. They also had a positive Pectoralis minor stretch weakness, neurolymphatic and neurovascular reflexes. In this instance lymph flow normalisation was done first, and cleared up only the indicators for fascial flushing, while the others had to be done separately. Results maintained over the following visits.

From the foregoing, it was evident that if fascial flushing was carried out first then its indicators cleared up, while the need for lymph flow normalisation was still positive. On the other hand if lymph flow normalisation was done first, the need for fascial flushing could not be verified, using the existing methods of evaluation. We followed our initial work with trials on several patients and the level of consistency was high.

Figure 2 gives a general plan of the directional lymph flow. It can be seen that the body is divided into four zones with the main objective of directing lymph towards the focal collecting points namely the axillary and inguinal regions. At this point it is interesting to note that the two major muscle groups (Abdominals and Sacrospinallis) have a divided directional flow and this may have some functional significance requiring further research.

DIAGNOSTIC PROCEDURE

The need for lymph flow normalization activity is determined by therapy localisation over the involved muscle. A specific light tissue pull in the direction of lymph flow is applied. One starts from the distal end, proceeding cephalad until the point of positive therapy localisation is reached, when a strong indicator muscle weakens. The end point of the blockage is determined when there is no more therapy localisation weakness in the indicator muscle, as one proceeds towards the point of entry at the lymph nodes. A tissue pull in the opposite direction will restore strength in a weak indicator muscle. Extra care should be exercised while therapy localising, since too little or too much pressure will give a negative indicator.

THERAPEUTIC PROCEDURE

Once the need for lymph flow normalization is established for a particular muscle, the corresponding neurolymphatic and neurovascular reflexes are checked and corrected, also the stretch weakness of the pectoralis minor, if present, should be taken care of. Lymph flow normalization is effected with a rhythmic semi circular movement, applying pressure of between 1 to 2 lbs. in the direction of the flow (shown by the arrows in fig.2) and this is done in a pumping fashion. One starts from the point of terminus at the lymph nodes and ends at the start point of positive therapy localisation that is from the end point of normal flow of that area to its starting point. The procedure is repeated four or five times.

CONCLUSION:

Research to date indicated that the need for lymph flow normalization is coincident with involvement of the related neurolymphatic and neurovascular reflexes. There also seems to be an area of overlap with fascial flushing. This technique may be of particular value in some cases of localised edoema and congestion due to lymphatic blockage. Further research will be necessary to define the various aspects of interrelationship between lymph blockage and fascial stretch weakness.

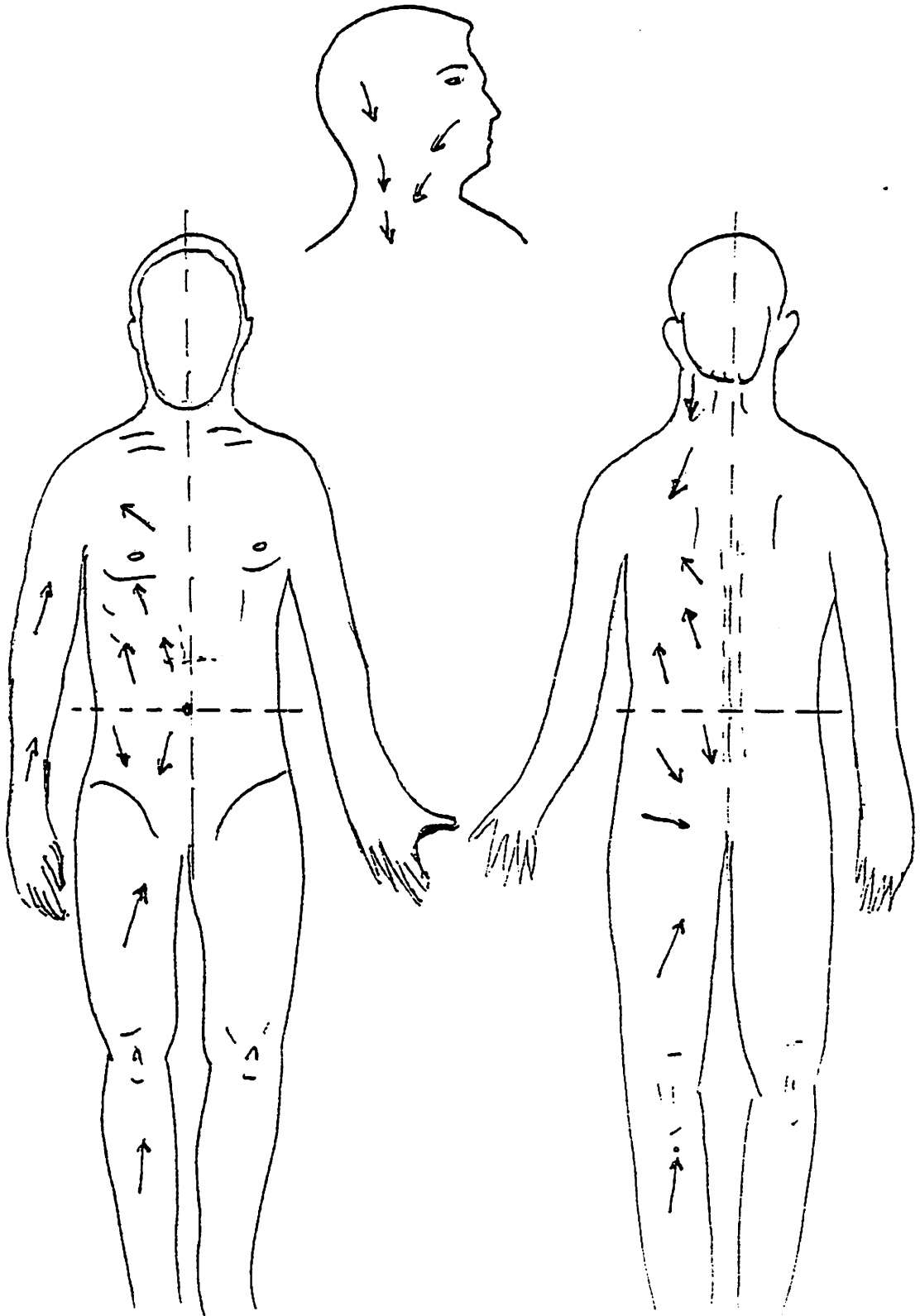


Figure 2

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by

JULIUS L. SANNA, D. C.

ABSTRACT

As an extension of the collected papers presented in 1977 to ICAK, further research, in this area, has resulted in several modifications. To further simplify the cross indexing between Luscher colors and Bach remedies; a chart has been devised following three years of clinical research. The identification of these colors, as outlined in the 1977 article, relates to the immediate emotional response of the patient.

METHOD

The article briefly states that following the placement of the colors, in the order of the patient's preference, the colors are then tested against the pectoral clavicular muscle, starting with colors of the patient's preference and ending with those less preferable. The identifying colors will be evidenced by the weakening of the pectoral clavicular muscle. These colors are then identified with the chart of colors to determine the Bach remedy and emotional state associated with the colors. A droplet of the Bach remedy is then placed on the tongue and colors that resulted in the weakening of the pectoral clavicular muscle are, again, viewed by the patient while testing against the muscle and, if remedy is correct, it will result in the strengthening of the pectoral clavicular muscle.

CONCLUSION

Wherever color red appears - substitute color orange.

The cross reference can be used as a clinical guide in the application of the Bach remedies and Luscher color test as a practical application to the mental side of the triangle.

GREY:

Blue - Impatiens - restless dissatisfaction.
Green - Agrimony - unresolved pressure.
Orange - Gorse - helpless irritability.
Yellow - Scleranthus - apprehensive insecurity.
Violet - Rock water - controlled responsiveness.
Brown - Beech - intolerance, criticism, passing judgement.
Black - Heather - expectant self-determinism.

BLUE:

Grey - Impatiens - impatience, irritability, extreme mental tension.
Green - Impatiens - impatience, irritability, extreme mental tension.
Orange - Gorse - hopelessness, despair.
Yellow - Elm - Stress from emotional dissatisfaction.
Violet - Impatiens - impatience arising from continued misunderstanding.
Brown - Rock water - self-repression, self-denial, self-martyrdom.
Black - Mimulus - fear or anxiety of a known origin.

GREEN:

Grey - Scleranthus - uncertainty, indecision, hesitancy, unbalance.
Blue - Agrimony - mental torture, worry, conceal from others.
Orange - Vervain - strain, stress, tension, over-enthusiasm.
Yellow - Wild oat - uncertainty, despondency, dissatisfaction.
Brown - Elm - stubborn but ineffectual demand for esteem.
Black - Heather - frustrated desire for independence and freedom.

ORANGE:

Grey - Cherry plum - desperation, fear of losing control of the mind, dread of doing some frightful thing.
Blue - Scleranthus - uncertainty, indecision, hesitancy, unbalance.
Green - Crab apple - cleansing remedy, despondency and despair.
Yellow - Vine - dominating, inflexible, ambitious.
Violet - Rock water - frustrated empathy.
Brown - Elm - insecurity arising from lack of allies.
Black - Impatiens - impatience, irritability, extreme mental tension.

YELLOW:

Blue - Elm - stress arising from emotional disappointment.
Green - Wild Oat - frustrated vacillation.
Orange - Vine - unrealistic self-justification.
Violet - Scleranthus - emotional disappointment leading to suspicion and distrust.
Grey - Aspen - vague fears, unknown origin, anxiety, apprehension.
Brown - Water violet - disappointment leading to assumed indifference.
Black - Rock water - watchful and retentive.

VIOLET:

Grey - Rock water - self-repression, self-denial, self-martyrdom.
Blue - Impatiens - impatience irritability, extreme mental tension.
Green - Chestnut Bud - failure to learn by experience, lack of observation in the lessons of life, hence the need of repetition.
Orange - Vervain - strain, stress, tension, over-enthusiasm.
Yellow - Gentian - doubt, depression, discouragement.
Brown - Water Violet - pride, aloofness.
Black - Heather - demands independence and "straight dealing".

BROWN:

Grey - Elm - demands esteem as exceptional individual.
Blue - Elm - emotional discontent arising from lack of appreciation and undue self-restraint.
Green - Elm - stubborn but ineffectual demand for esteem.
Orange - Elm - insecurity arising from lack of allies.
Yellow - Water Violet - disappointment leading to assumed indifference.
Violet - Rock water - sublimated artistic sensitivity.
Black - Heather - desire to control one's own destiny.

BLACK:

Grey - Vervain - strain, stress, tension over-enthusiasm.
Blue - Mimulus - fear or anxiety of known origin.
Green - Heather - frustrated desire for independence and freedom of action.
Orange - Heather - frustrated desire for independence.
Yellow - Heather - self-centeredness, self-concern.
Violet - Heather - demand for shared independence.
Brown - Elm - occasional feelings of inadequacy, despondency, exhaustion from over-striving for perfection.

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ONE FACTOR IN AVOIDING A RECIDIVOUS HEATH
CRANIAL FAULT AND IT'S LOVETT BROTHER

by

Raymond A. Seugling Jr., D.C.

ABSTRACT: Avoiding a recidivous Heath cranial fault and it's lovettt brother, the pelvis, suggests another factor needed for complete correction. Utilizing applied kinesiology in searching for causes, foot pronation became a familiar entity. Its presence was in high incidence and a more permanent correction of the cranial and pelvic faults was accomplished when pronation was corrected.

DISCUSSION: Heath describes his findings in the Heath cranial fault as "extremely painful orbit, increased glaucoma reading and ocular hardness upon palpation will usually be found on the eye opposite positive therapy localization. Therapy localization consists of simultaneous contact of the frontal eminence and contralateral occiput at parietal-occipital line. The challenge is contralateral pressures directed toward the center and testing any previously strong indicator muscle. Correction is accomplished by contacting positive T.L. areas and using 4 - 5 pounds pressure on the phase of respiration that abolishes therapy localization. Hand pressures are directed toward one another with correct respiration, all inspiration assist technics benefit from tongue at hard palate; expiration assist technics by tongue to floor of mouth and appropriate respiration. "T.L. or challenge may now be used to test for correction." 1

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Continuing along with this work in collaboration with Salvatore Cordaro, D.C., Diplomate, I.C.A.K.; this author identified the pelvis as a Lovett brother to the Heath cranial fault in a paper presented at the Spring I.C.A.K. meeting, 1979. It was noted then that therapy localizing (T.L.) or challenging of the pelvis at the posterior ilium and the contralateral anterior ilium discloses the fault. Correction is accomplished by using contralateral pressure directed toward the center in the phase of respiration that abolishes the T.L. or challenge mechanism.²

Foot pronation becomes suspect when you consider such statements as: "foot problems should be considered in every patient. Specific indications are sciatic paresthesia of any nature, knee pains, and lumbar, pelvic recurring disturbances."³ Of all the various types of foot problems, foot pronation is probably more common than realized. Foot pronation could simply be defined as a combination of eversion and abduction of the foot. Observation of the pronated foot presents medial deviation of the calcaneus; however, does not have to take this appearance to be pronated and cause for reaching effects. Placing the examiner's finger under the arch of the foot in a standing position on a hard surface will demonstrate extreme tension of the plantar fascia. Other signs include plantar callus formation and shoe heel wear appearing on the postero-lateral aspect.

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More specific kinesiological findings take us to anterior tibial and psoas weakness and peroneus longus and brevis hypertonicity. All should be checked and corrected as necessary using standard applied kinesiology techniques. The pronation is then corrected using the traction thrust against the talus laterally in a medial direction. Additionally it may be necessary to provide foot stabilization in the form of arch supports. In any case, shoe construction should always be considered and discussed with every patient. "With adequate muscular, structural, and neurologic correction, combined with quality shoes and support, the patient's condition can be corrected."⁴

As previously stated, despite correction of the Heath fault and the pelvis, we began to notice a return of the entire complex. It was hypothesized that there was obviously an additional factor (s) to complete the correction. The relationship of the foot became suspect due to the pelvic disturbance.

In order to begin proving this premise, a somewhat brief statistical review of 53 cases was performed. The prerequisite in each case was the presence of the Heath cranial fault and its Lovett brother, the pelvis. The sampling included a variety of age groups ranging from 17 - 72. In 44 cases or approximately 83% of the total, foot pronation was present. Correction and support of the pronation resulted in a significant if not total

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stabilization of the cranial and pelvic counterparts.

This initial study is encouraging. However, it is felt that additional larger groups and time of study is recommended.

Further, it only confirms this author's convictions that entities as important as foot pronation should be checked routinely on all patients regardless of other findings. It reminds me of someone who once said "fix what you find." On the other hand, in a busy practice it is convenient to recognize all aspects of an entity to achieve a better correction and a starting point.

In summary, it appears that foot pronation is a common finding when the Heath cranial fault and its Lovett brother, the pelvis, are present. In a brief study pronation appeared approximately 65% of the time when the cranial and pelvic faults were present. This emphasizes the need to correct important entities whenever they are found as they may well be a part of total correction.

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L U M B A R S W I T C H I N G

By: Sheldon A. Sinett, BA, MA, DC

Abstract: Correction of lumbar two, three, four or five individually or more than one vertebra has been found to show the proper lesion side of a category one sometimes the category one will be positive on subsequent visits with a positive T.L. (Therapy Localization) for the lesion to the opposite side. We have found by proper correction to the lumbar vertebrae by forceful manipulation or by proper respiratory assistance manipulation the proper lesion side will show.

In dealing with a category one patient you are dealing with a non-osseous respiratory pelvic fault. Sometimes the lesion side will switch from one visit to another. In our office when dealing with chronic, severe low back problems we saw this mechanism occurring. It was very perplexing to us before certain observations were made. We then discovered what we called a lumbar switch. The lumbar switch is found by first TL for a category I. TL the left hand to the left sacroiliac joint and the right hand to the right sacroiliac joint, positive TL indicates a category I. The next step, as you all know, is to find the lesion side. This is done by using two hands over one sacroiliac, positive TL indicates lesion. Let's assume now that all switch mechanisms have been corrected. The complete correction for a category I has been done including all of the muscle balancing, blocks, vitamins, cranials, etc. On a subsequent visit the category I returns but this time the lesion switches to the opposite side. TL lumbar five, four, three, and two very carefully. Find out where there is a positive TL, challenge for subluxations, make the appropriate corrections using forceful or non-forceful techniques then re-TL each vertebra to make sure they are cleared. The next step is to re-TL the category I. The lesion will show on the proper side. If on the first visit it showed a right lesion and the next visit showed a left lesion, look for a lumbar switch mechanism.

LUMBAR SWITCHING

By: Sheldon A. Sinett, BA, MA, DC

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We believe that when the lumbar vertebrae are subluxated a switch mechanism could occur to the pelvis with opposite lesion side showing on different visits. We also think that this is a compensatory mechanism.

Since we have discovered the lumbar switch mechanism, category I patients have responded much quicker, with better results, better mobility and clinically the category holds for a much longer time.

I would like to thank my associate, Dr. Avery H. Ferentz, for his assistance in correlating this procedure.

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BIOMAGNETISM & KINESIOLOGY

Mark W. Terry, D.C.

Abstract: The ideas and concepts of biomagnetism can add a very important dimension to the applications of applied kinesiology. Procedures for using magnets as part of Therapy is discussed.

Magnetism is a subject with which people are quite familiar or are they? Certainly we have heard the word many times and certainly we understand its mechanisms and applications? Just like many subjects, we talk about it but sometimes fail to really appreciate its ramifications. This paper attempts to demonstrate procedures of diagnosis, muscle weakness patterns, and therapeutic application.

For centuries it has been assumed magnets have energies which are one and the same. According to Dr. Richard Broeringmeyer this has been refuted.¹ Opposite poles of a magnet have opposite effects on living systems.² It has been described that the poles have these effects:³

NORTH POLE

1. Stops protein activity
2. Draws fluid
3. Contracts
4. Vaso-constricts
5. Increases alkalinity
6. Sedates or Inhibits
7. Increases potassium ion
8. Decreases abnormal calcium

SOUTH POLE

1. Increases protein activity
2. Dispenses fluid
3. Expands
4. Vaso-dilates
5. Increases acidity
6. Stimulates
7. Increases sodium

With the foresight of Dr. Broeringmeyer we have at our disposal a system of knowing when to use either the north or south pole and just as important, knowing when not to use the north or south pole. In his teaching he utilizes change of leg length to determine body imbalance and thus the application of the particular pole. To determine the body's imbalance a

magnet is applied to various points, much the same as the acupuncture alarm points. If leg length changes then that particular alarm point is said to be active. If the north pole reacts i.e., leg length change upon applying north pole on an alarm point, then that particular organ is said to be hypoactive. If the south pole reacts then the associated organ is said to be hyperactive. We have found this method to be too time consuming to administer in a busy practice. As a result we utilize this system via muscle testing. The magnet we use is placed in a metal sleeve with red to denote the south pole and green the north pole. If any indicator muscle weakens while therapy localizing an alarm point then that organ or organ system is involved. If south pole TL is present then treatment to the organ is done by applying the north pole to the appropriate organ or muscle. In this manner we can detect hyper or hypo function relatively fast and accurately. Of course remedies can be of different types, magnets being just one. It is added to what we know and do, not replace it. The important concept to keep in mind is that you treat with the opposite pole from that with which you diagnosed the problem. This is very important. If north pole TL is present then treatment to the organ is done by applying the south pole. Also, this can be done to burns, hematomas, fractures, and rashes. We have used it for respiratory conditions, musculo-skeletal disorders, gastrointestinal disorders, and genito-urinary conditions. It can be applied safely whenever one detects a change of polarity. If positive (south pole) reacts, therapy is via the negative pole. If negative (north pole) reacts, therapy is via the positive pole. Our definition of react is meant to say a strong muscle becomes weak.

Biomagnetism and its effects can be added to your knowledge and practice quite readily. We use the N1 bar magnets of 3900 gauss each. We use three magnets at a time in treatment. Less than 13,000 gauss is required to

get the effect of the needed pole. Treatment time is usually twenty minutes.

In this manner we have been able to utilize a valuable form of therapy, obtain good results, and through the particular way of diagnosing the imbalance, obtain a high degree of both patient and self satisfaction.

I would like to thank Dr. Broeringmeyer of Murray, Kentucky, for bringing this information to my attention.

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A CORRELATION OF MULTIPLE FACTORS INVOLVED IN THE NEUROLOGIC
DISORGANIZATION OF SWITCHING

By David S. Walther, D.C.

ABSTRACT

Presented is a review of the concept of switching as developed by George Goodheart, D.C., in applied kinesiology. Additional factors which have been developed in the evolution of applied kinesiology by Goodheart and others are correlated with concepts which the author has found contribute to the switching problem. Specifically considered are such factors as K27 - umbilicus stimulation, GV-CV balancing, ocular lock as it relates to the cranial mechanism (especially that of the cranial nerves), pelvic dysfunction, cloacal synchronization, gait involvement (including feet), and cross pattern neurologic education. The author believes that once switching is corrected, it should never return unless the patient is re-injured, either physically, chemically or psychologically.

Early in applied kinesiology it was observed that when certain patients were being evaluated the information obtained did not make sense. For example, the patient might have a high right shoulder and a weak latissimus dorsi on the left side. In a usual situation, the high shoulder would be on the right side as a result of the failure of the weak latissimus dorsi to hold the shoulder down. The situation was confused because no other muscles were involved to account for the paradoxical finding. As more knowledge was gained in applied kinesiology, it was observed that many factors would fail to correlate in some patients, such as TS line indicating a weak muscle on one side and the muscle actually being weak on the opposite side, with the ipsilateral muscle being strong. These patients became known as "switched" individuals and investigation was ongoing to find the causative factors for the lack of correlation of findings. Goodheart found that K27 (an acupuncture point), when stimulated bilaterally along with the umbilicus, would frequently organize the patient so that the findings would correlate in a reasonable fashion, as they should. Frequently after the stimulation of K27 and umbilicus, dramatic changes would take place. Immediately the weak latissimus dorsi would change from the low shoulder to the high shoulder side, the TS line would correlate with the muscular findings. An individual with a positive ileocecal valve having pain in the left lower quadrant would have the pain change to the right lower quadrant. Muscular weaknesses which did not correlate with meridian balance of the body would re-organize to correlate with the meridian imbalances of the body.

Obviously, if the patient was switched, the diagnostic findings of specific muscle weakness were unreliable as a method to evaluate the energy patterns of the patient; consequently, a procedure of stimulating K27 and umbilicus prior to evaluating the patient was a wide-spread procedural technique. In fact, some teachers in applied kinesiology recommended having support personnel stimulate K27 and umbilicus on the patient prior to the doctor evaluating him. As more and more knowledge has been obtained in applied kinesiology, it is obvious the best procedural technique is to evaluate the patient for neurologic disorganization (switching) on the first visit and correct it, and from that point on evaluate to determine if switching has returned. For the individual beginning in applied kinesiology, this can easily be done by using the testing techniques for switching described later. For the individual who is advanced in applied kinesiology, it is obvious during an examination when the patient is switched. The findings of muscle testing will fail to correlate. The first indication of this lack of correlation gives the doctor an indication to evaluate for neurologic disorganization.

Although the stimulation of K27 and umbilicus will almost always eliminate the indications of switching, it is also frequently not a permanent correction. Many factors can send imbalanced stimuli into the general nerve and meridian systems which can cause neurologic disorganization to be perpetuated. Consequently, the routine stimulation of K27 and umbilicus on each visit prior to observing the patient can cause the patient to be perpetually switched, and the doctor will not be aware of the fact that he is failing to obtain the neurologic organization

so necessary to the patient's return of health.

The correction of switching should be a lasting correction. If the patient continues to show evidence of switching or neurologic disorganization, the doctor must investigate further to find what is causing continued stressful and disorienting nerve impulses to enter the system. The involvement could date back to infancy, such as cranial faults from the birth process, developmental faults, such as failure to obtain neurologic organization from normal crawling and creeping patterns, or later in life from trauma involving a structural system such as the gait mechanism. The main concern is that whenever switching or neurologic disorganization returns, the patient has not yet been neurologically organized, or is not functioning structurally in a normal manner. It must also be remembered that the chemical and mental sides of the triad of health can cause the neurologic disorganization known as switching. The patient should consequently be evaluated for medications and other toxic substances, nutritional deficiencies, as well as involvement on the mental side of the triad of health.

Some of the more important structural factors that contribute to switching are cranial faults, pelvic dysfunction, TMJ problems, cloacal synchronization pattern, and gait mechanism, including foot problems. The patient should also be evaluated for possible failure of developing proper cross communication by crawling and creeping as a child.

STOMATOGNATHIC SYSTEM

Cranial

The cranial mechanism, a very important part of the stomatognathic system, is inseparable from temporomandibular

joint function. Pelvic function should also be considered along with the cranial mechanism, particularly category I.

Frequently cranial function itself is the basic cause of switching. Goodheart (1) first correlated the cranial function with switching when he observed that the ocular lock indication of switching was abolished by correcting a glabellar cranial fault.

Ocular lock is a condition wherein a previously strong indicator muscle weakens when the eyes are forced to work together. Evaluate for ocular lock by having the patient turn his eyes to the far right and testing a previously strong indicator muscle for weakening, turn his eyes far left and testing, looking up and testing, and looking down and testing. The order of testing is of no consequence. The testing procedure can be further evaluated by having the patient turn his eyes in the four oblique directions. Another method of testing for ocular lock is to have the patient turn his eyes in a complete circle counterclockwise and then test a strong indicator muscle for weakening; turn clockwise and repeat the testing.

It is hypothesized that switching occurs as a result of the stressful sensory input of vision when the eyes are not working well together. For example, if the abducens nerve is irritated in such a way as to cause a weakness of the lateral rectus muscle, there will be a tendency for esotropia of that eye. The individual may be able to fuse and not have diplopia, but the system is in constant stress maintaining the visual fusion. Making the eyes work together creates additional neurologic stress, causing the indicator muscle to weaken temporarily while that stress continues.

When ocular lock is present, there is also an indication of switching by a positive therapy localization at the junction of the sternum with the first rib head and clavicle. It must be remembered that therapy localization tells only where an involvement is, not necessarily what it is. Therapy localization at this point could be showing an active K27 acupuncture point, or it could be stress and possible subluxations of the first rib and clavicle with the sternum. In any event, when there is a positive ocular lock, there will be positive therapy localization at this point. When the cranial fault which is involved with the ocular lock is corrected, the positive therapy localization at the junction of the first rib head and clavicle with the sternum will be abolished, along with the positive ocular lock.

The cranial fault correlating with the switching can be found by using a holding-type challenge to abolish the positive indication of switching. The patient can either hold his eyes in the position which causes a previously strong indicator muscle to weaken, or can therapy localize at the junction of the first rib head, clavicle and sternum, causing a previously strong indicator muscle to weaken. The cranium is then challenged for various cranial faults in different vectors until the challenge is found which causes the indicator muscle to re-strengthen, even though the ocular lock eye position is continued or the therapy localization of K27 is continually held. This cranial fault should then be corrected in the usual manner and the patient again re-evaluated for switching.

Cranial dysfunction can also contribute to switching by disturbance of auditory or balance function because of dysfunction

of the eighth cranial nerve. The spinal accessory nerve (XI) is involved with innervation of the head-leveling muscles sternocleidomastoid and levator scapula. This mechanism is also probably involved with the switching mechanism. There are probably many other cranial nerves which are correlative to the neurologic disorganization of switching which have not as yet been recognized in the applied kinesiology evaluation of the body. To this point in our understanding, all neurologic disorganization associated with cranial faults is indicated by a positive therapy localization to the junction of the first rib head, clavicle and sternum; that indication is abolished when the cranial faults are corrected.

When the cranial function is corrected, attention should be given to factors which can cause the cranial faults to recur. Sometimes there are other dysfunctioning areas of the body which are in an imbalance that is compatible with the cranial fault(s). These other factors are functioning in synchronous disharmony with the cranial fault. When the cranial fault is corrected, there is an attempt by the body to correct the other faults, if present, by the improved function of the cranium. If that is impossible, the cranium will become re-involved to be in synchronous disharmony again. These factors are, in part but not all-inclusive, the stomatognathic system, pelvic category I, gait mechanism (including foot involvement), and cloacal synchronization. Also general structural function in the pitch, roll and yaw positions must be balanced.

Temporomandibular Joint

Dysfunction of the temporomandibular joint can be responsible for creating cranial faults or causing them to recur after correction. The muscles of mastication put a tremendous force

into the cranium and, if imbalanced, will create cranial dysfunction. The muscles themselves may be imbalanced from proprioceptive dysfunction, or the imbalance can be from a dental malocclusion causing an imbalanced pull into the cranium when the patient masticates.

The prodigious nerve supply to the oral cavity and supporting structures, as exemplified in Penfield and Rasmussen's homuncular representation, may also be a factor in the sometimes enigmatic problem of switching. Aberrant nerve impulse can cause the disharmony in the nerve system known as switching.

Pelvic Involvement

Regarding the pelvis with switching, the category I is probably the most important involvement; however, other pelvic involvements must also be considered. The pelvic respiratory involvement of the category I is most involved with cranial dysfunction and its relation to switching, while category II is involved more on a frank structural imbalance, with the input of abnormal proprioceptive impulses causing a lack of general nerve correlation.

Category I is involved in specific patterns with cranial dysfunction. The pelvic dysfunction will follow that of the cranial dysfunction, or the cranial dysfunction will follow the pattern of the pelvic dysfunction, whichever came first. This correlation of the pelvis and the cranium is present unless some other factor disturbs the harmonious dysfunction of the two structures. Other factors affecting the pelvis could be weakness of the abdominals, gluteus medius, piriformis, or other muscles associated with the pelvis. Affecting the cranium could be imbalance of the sternocleidomastoid, trapezius, TMJ muscles,

or other muscles associated with cranial motion. If there is a failure of harmony between cranial dysfunction and pelvic dysfunction, the extraneous involvement should be located and corrected. Evaluate the muscles that associate with the function of these two major structures, and look for a possible organ correlation, such as small intestine, reproductive organs, sinus, etc. Make the appropriate correction.

When there is an inspiration assist on the right cranium, there should be an inspiration assist on the right sacrum. Bilateral inspiration assist to the cranium should have a bilateral inspiration assist of the sacrum. When a category I is present, the lateral flair posterior ilium side should have an inspiration assist or temporal bulge in the cranium on the same side. On the internal flair posterior ischium side there should be an expiration assist or parietal descent in the cranium. (NOTE: Correlate the muscles of pelvic respiratory function and cranial respiratory function with the motions described.)

It must be noted that frequently (in fact, in this author's experience, the majority of the time) switching is eliminated by proper cranial treatment. In most instances, the cranial involvement will be that of a torquing of the cranium - for example, an inspiration assist on one side and an expiration assist on the other side, or a temporal bulge on one side with a parietal descent on the opposite side. These cranial lesions consistently have a pelvic respiratory pattern of a category I, which is either primary or secondary to the cranial faults. When there is a category I pelvic fault, there will consistently be a bilateral involvement of the first rib head, both posterior

and anterior. When this involvement is present, there will be a positive therapy localization over that area. This is the same area that K27 is found, and has been the classic diagnostic criterion for the majority of switching in applied kinesiology. It becomes a question of determining whether the positive therapy localization over the junction of the first rib and clavicle with the sternum is due to an active acupuncture point (K27), or a structural stress or subluxation of the first rib head with the sternum. This differentiation can easily be made by evaluating the varying characteristics of therapy localization over an acupuncture point and that of a structural fault. An acupuncture point is the only area that an impartial assistant can touch and show positive therapy localization. This is because of the antenna effect (2) of a positive acupuncture point. When a previously strong indicator muscle weakens as an assistant touches K27, the positive therapy localization should be abolished if the assistant grounds himself to an adequate grounding area. Most modern chiropractic tables are grounded through the electrical system of the building, and the assistant can merely touch the metal portion of the table for the grounding effect. If the point is actually an involvement of the first rib head and sternum, as is present in the positive category I condition, there will be no effect when the assistant touches the location; however, there will be positive therapy localization if the patient contacts the point. There will be no change in the positive therapy localization if the patient grounds himself, or an assistant grounds the patient.

Cloacal Synchronization (3)

The centering and balancing mechanisms of the anterior and posterior cloacal reflex, visual righting reflex, labyrinthine reflex, and the tonic neck receptors must all be functioning in harmony or there is a failure of centering of the body. An uncentered body may cause a continued neurologic disorganization that will cause the standard form of switching to be re-established. Improper cloacal synchronization is often involved with a less common form of switching, which is the cross K27 switching or schizophrenic switching pattern.(4) Correction of cloacal synchronization will frequently be the factor that changes a cross K27 schizophrenic type of switching to the standard cross-crawl pattern type of switching.

Gait Involvement (Including Feet)

It is not unusual to see switching return in an individual who has had the indicators removed by stimulation of K27 umbilicus, CV-GV, etc., when he walks or runs for a short distance. The return of switching after running or walking most often indicates an involvement of the gait mechanism. The gait mechanism should be evaluated in the usual applied kinesiology manner, and treated with the acupuncture points indicated. Whenever a gait mechanism must be corrected, the entire foot, ankle and lower leg must also be evaluated. Frequently a foot subluxation or a muscular imbalance in the foot is the reason for the positive acupuncture points in the foot. Failure to correct these involvements will cause the improper gait mechanism to return. Again, the patient can be evaluated after correction by having him run, walk, jump, and otherwise be physically active in a weight-bearing position.

Foot function is extremely important because improper proprioceptive impulses coming from the joints and muscles of the foot can and do send confusing nerve impulses into the entire structural system. These impulses go to the shoulder, sacrospinalis, trapezius, sternocleidomastoid, and other muscles. This is important because these target muscles may contract or relax inappropriately for the position of the foot and gait. This failure of the muscles to functionally coincide with other body actions causes stress within the system, showing a general neurologic disorganization. The body's effort to adapt to this disorganization may well be the background to the phenomenon known as "switching." This becomes much more important when it is considered that some of these muscles, such as the sternocleidomastoid, portions of the sacrospinalis, etc., are attached to the temporal bones and occiput, and are very important in cranial respiratory motion. Again, we see how the body functions as an integrated whole, and cannot be expected to function at peak performance when one or more individual structures are in disharmony.

Cross Pattern

The individual who is chronically switched should be evaluated for failure to develop normal neurologic crossing by active crawling and creeping as an infant and child. This usually has a history of impaired developmental activity because of trauma, such as the child being placed in a cast as a result of a broken leg during an important stage of development. The child's development can also be restricted if he is placed in a walker or otherwise limited in physical activity. A parent may create

neurologic confusion in the normally left-dominant child by trying to change him to right-dominant. There is a significant amount of heredity in neurologic development of dominance. When it is observed that an individual failed to develop bilaterality and consequent dominance, cross pattern exercising is of significant value to improve the developmental stage of neurologic organization.

CONCLUSION

Finding the specific cause for switching is paramount in obtaining a permanent correction. Whether the involvement be a failure of original development of neurologic education, as would be present in an individual who failed to cross pattern correctly as a child, or whether the problem is an injury affecting the cranial-pelvic mechanism, gait mechanism, etc., the basic underlying cause of the problem must be corrected to obtain a permanent removal of the neurologic disorganization known as switching.

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AN ADDITIONAL APPROACH IN THE TREATMENT OF SCHIZOPHRENIA

By David S. Walther, D.C.

ABSTRACT

A system to further evaluate the schizophrenic pattern as observed by Goodheart (1, 2) is presented. The system uses standard applied kinesiology evaluation and treatment techniques to change the homolateral crawl pattern of a schizophrenic to that of a standard cross crawl pattern. The change brings the individual from a switching pattern of schizophrenia to a standard switching pattern, to be treated by usual AK methods. This presentation hypothesizes that the homolateral crawl pattern, which has been used in applied kinesiology with effective results, is working with an abnormal neurologic pattern. Increased results can be obtained by changing the individual from a homolateral crawl pattern to a cross crawl pattern. When change to cross pattern is achieved the individual will show evidence of switching, which is treated in the standard applied kinesiology manner.

Some individuals have a neurologic organization in their body such that the cross-crawl pattern causes strong indicator muscles to weaken while a homolateral crawl pattern causes previously weak indicator muscles to strengthen. This was first observed by Goodheart (2) and was correlated to the schizophrenic pattern.

The individual who exhibits this homolateral pattern will also exhibit a positive therapy localization to K27, but only when the therapy localization is done cross handed. When using the right hand on the left K27 and the left hand on the right K27, care must be taken that the two hands do not touch each other, causing a short circuit. Care must be taken that K27 is therapy localized because when the crossed hands are being used, there is a tendency to have the fingers doing the therapy localization too far from the medial line, thus missing K27. This cross K27 therapy localization will be present in all schizophrenics, but the positive therapy localization does not necessarily mean that the individual has schizophrenia as diagnosed by the Hoffer-Osmond Diagnostic Test and other recognized methods of diagnosing the condition. There will, however, be a neurologic disorganization correlating to the homolateral crawl pattern in every instance of cross K27 positive therapy localization.

A standard procedure in applied kinesiology has been to give the schizophrenic a homolateral crawl pattern as a therapeutic measure. Homolateral crawl, along with other appropriate treatment for schizophrenia, produced good results in the schizophrenic; however, it was observed by this author that after a period of

time, the schizophrenic did not progress as well and, in fact, complained of symptoms developing after doing the homolateral crawl. The patient was re-examined for the appropriateness of the homolateral crawl, and it was found that the patient had changed to a standard cross crawl pattern. This indicated that some other therapeutic measure we were doing was changing the individual from a cross K27 - homolateral crawl patient to a standard switched patient. My observation was that the patients who were improving the most - actually completely recovering from the schizophrenia - were those who changed from a homolateral crawl to the usual cross crawl pattern. Since this changing took place, it occurred to me that possibly giving the individual a homolateral crawl pattern was enhancing an abnormal neurologic organization.

Investigation was begun on new patients who had a cross K27 - homolateral crawl pattern to determine if there was some therapeutic measure that could be applied which would change the individual from the cross K27 - homolateral crawl pattern to the standard positive K27 pattern of switching.

The procedure was to identify the cross K27 pattern by therapy localization and the positive homolateral crawl pattern, then to monitor the patient for additional factors needing correction in his general health pattern. In particular, those factors previously identified as correlating with switching or failure of the body to center itself were evaluated. When an involvement was identified, it was treated in the usual applied kinesiology way; then the patient was re-evaluated for the presence of the cross K27 positive therapy localization and the homolateral crawl

pattern. It was found that all patients could be changed from the cross K27 pattern to a standard switching pattern. The therapeutic measure which made the change varied. The most common factor making this change was cloacal synchronization technique (3) which, in my experience, accounts for approximately 75% of the cases. Other factors which have been observed to change a cross K27 positive therapy localization to a standard switched pattern are gait mechanism dysfunction (including foot dysfunction) and stomatognathic system (including cranial faults, TMJ, and hyoid muscle dysfunction). Also, the chemical side of the triad of health is represented by niacin or niacinimide and B6 which occasionally changes the cross K27 to a standard K27 therapy localization.

My opinion is that using the homolateral crawl pattern on a schizophrenic produces improvement by enhancing the abnormal pattern. This enhancement of the abnormal pattern is necessary when we have failed to correct a basic underlying cause. There is no question that the homolateral crawl pattern has been of significant value in helping many schizophrenics with significant and serious mental health problems. Again, it was observed in earlier practice that the schizophrenics who recovered more fully were those I had to take off the homolateral crawl and change to a cross-crawl pattern for unknown reasons. With the current mode of treatment, changing a cross K27 to a standard switched patient and then proceeding with un-switching or centering the patient, the return to normal function is much more rapid and complete than with the previous treatment of homolateral crawl. There are, however, significant precautions which must be observed

in proceeding with this change of the patient's neurologic pattern.

First, change the patient from a positive cross K27 therapy localization to a standard K27 positive therapy localization of the usual switching pattern. This is accomplished with some form of treatment in the usual AK approaches, as mentioned before. Then the usual approaches for a switched patient should be instituted. If the doctor chooses to use a cross crawl neurologic educational procedure, the correctness of the lateralization must be determined by using a therapeutic trial to determine correctness of procedure and then using the opposite procedure to determine that the improvement is eliminated. Then the improvement is again re-instituted by the correct cross patterning procedure. This not only helps to educate the patient as to the necessity of the correct procedure, it also gives the doctor positive proof that the procedure he is prescribing is correct for the patient's improved function. When the cross patterning procedure is prescribed for the patient, the doctor should re-evaluate the patient on a frequent basis, possibly even daily, to determine if the procedure is still effective for the patient. It is possible for the positive cross K27 - homolateral crawl neurologic pattern to return if the correction which removed it is lost. Correction can be lost for any of many reasons, correlating with failure to find and correct some specific aspect which may still be feeding aberrant nerve impulses into the system. If the change from cross K27 to standard switching is lost, the cross-crawl pattern which was correct for the patient will now be detrimental to his neurologic pattern of schizophrenia. If this should happen,

a reversion back to his original condition and possibly even an exacerbation into more serious symptoms can develop. Consequently cross-crawl patterning should not be continued if the cross K27 pattern returns.

The patient, and possibly the family, should be warned that if he feels worse, developing his old symptoms after the cross-crawl neurologic patterning, he should discontinue the procedure immediately and contact the doctor for re-evaluation. This instruction to the patient and family needs to be emphasized. Some of these patients have significant depression and/or paranoid correlation with the schizophrenia. These patients can have suicidal tendencies and should be considered with that potential in mind. The patient who has been in and out of mental institutions and finally sees basic correction of his condition taking place can become very despondent if he sees a cessation of improvement or an exacerbation of symptoms. Offering advance education of what the doctor is doing to improve neurologic function can alleviate the apprehension the patient may develop in an exacerbation.

The patient who exhibits the cross K27 - homolateral crawl pattern may have previously been diagnosed as schizophrenic, and patient education can progress along the specific grounds of this so-called mental illness. If, however, the patient has not had this diagnosis previously, it is most often better not to discuss the condition by the term "schizophrenia." Schizophrenia is simply improper function of the sensory nerve system, giving the wrong information to the central nerve system. Quite frequently when this condition is found during general applied kinesiology examination, questions by the doctor to the patient regarding

abnormal sensory perception will uncover symptoms the patient would hesitate to discuss. The questions can be along the line of "Do you sometimes think someone is in the room with you when there is no one?" Do you hear voices when no one is present, or maybe see lights or have unusual skin sensations?" The doctor can then explain that the examination has uncovered an involvement with the sensory nerve system which could give unusual sensations and perceptions, and create generally confusing situations. The recognition of this body language by the doctor and the information given to the patient will frequently cause the patient to ask many questions about himself which he has never discussed with anyone else. In fact, many of these patients have been living with a great turmoil within themselves, afraid to discuss these weird and unusual happenings with anyone. Again, it is best not to use the term "schizophrenia," but rather to talk about abnormal sensory nerve function. This can easily be done. Simply explain what the sensory nerve system does, correlating it with any other nerve function. The condition is no different from an irritation on a nerve which causes pain, muscle contraction, or hypotonis of a muscle. Putting the condition into this perspective significantly relieves the patient's mind, whether the condition is being discussed as frank schizophrenia in a previously diagnosed individual or simply as sensory nerve disturbance.

As mentioned, the cross K27 homolateral crawl pattern will be found on patients who do not complain of the usual symptoms of schizophrenia. They simply have many and varied general health problems. Sometimes the patient's presenting symptoms will correlate with abnormal sensory nerve function. An example of

this is a patient who presented herself to a dentist who uses applied kinesiology, with the symptoms of excessively sensitive teeth. The patient had seen many dentists previously and treatment such as bite guards, dental splints, medication (such as Valium), fluoride treatment, etc., had been used to no avail. She also had a presenting history of excessive sensitivity to medications; one-fourth the usual dosage of Valium would "knock her out" for a complete night of sleep, and a usual dosage of Valium would make her completely dysfunctional. Nitrous oxide in an amount that would not even register on the gauges was a completely adequate dosage, whereas a usual dosage of nitrous oxide would render her helpless. The patient was excessively sensitive to light, and reacted very strongly to any pain stimuli. Upon thorough evaluation, it was observed that this patient's nerve system reacted excessively to much sensory stimuli. She was found to have a cross K27 - homolateral crawl pattern and was evaluated for those factors presented in this discussion. She was found to need the cloacal synchronization technique, which changed her to a standard switching pattern which was then treated. The patient lost all excessive sensitivity in the dental area. She also improved significantly in all areas of the sensory nerve system. Months later the patient confided to the dentist that prior to his evaluation and treatment, she felt that within a year she would be in an institution because of all of the "bad things" that were happening to her of a mental nature. Since his experience with this patient, this dentist has seen other patients who have the primary complaint of tooth sensitivity. Upon questioning, other sensory problems have been elicited. These

individuals have been corrected with similar treatment.

The homolateral crawl pattern of cross K27 therapy localization will be found in a considerable number of patients who are non-responsive to applied kinesiography techniques. We can consider it a specialized type of switching, often overlooked because it does not therapy localize to K27 in the standard manner, i.e., right hand therapy localizing right K27 and left hand therapy localizing the left K27. The procedures outlined in this article have been utilized on approximately 30 patients in my practice over the past two-year period of time. It has been utilized on every patient where a cross K27 - homolateral crawl pattern has been found. In no instance has there been an inability to change the cross K27 - homolateral crawl pattern to a pattern of standard switching. The standard switching must then be treated, and relates to the usual applied kinesiology approaches.

CONCLUSIONS

Cross K27 and homolateral crawl pattern are found in patients who have frank schizophrenia as demonstrated by usual examination procedures, including the Hoffer-Osmond Diagnostic Test. This unique pattern is also found in patients who do not frankly exhibit the classic symptoms of schizophrenia, but do exhibit heightened sensory nerve system response. Whether the patient is a frank schizophrenic or relates more to the

heightened sensory nerve system response, it will be difficult - if not impossible - to return him to the highest plateau of health achievable until he is changed from a positive cross K27 therapy localization and homolateral crawl pattern to that of the standard switched patient, then treated for switching.

The question of cross K27 - homolateral crawl pattern should be considered any time the patient has excessive reaction to sensory stimuli, or frank schizophrenia. When this pattern is found, a systematic evaluation of the patient should be made to find what aspect of the patient's health is firing noxious nerve impulses into the central nerve system, causing the abnormal pattern to be present. The usual factors are improper cloacal synchronization, gait involvement, cranial and/or pelvic faults, nutritional deficiency correlating with niacin or niacinimide and vitamin B6. When the cross K27 - homolateral crawl pattern has been cleared, the patient will generally show a pattern of standard switching which must then be cleared. Careful re-evaluation must be made by

the doctor to make certain that the abnormal pattern does not return. This is especially important if cross crawl patterning is prescribed.

The treatment described in this paper does not eliminate the need for thorough evaluation of the patient regarding other potential involvements as outlined in general applied kinesiology examination and procedures. The schizophrenic must certainly be evaluated for blood sugar handling stress with adrenal problems, need for niacin or niacinimide and vitamin B6, and other nutritional factors. The patient is brought to the highest plateau of health by eliminating the maximum number of causative factors in the total physiologic picture.

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TRIGGER POINT TECHNIC FOR NECK AND SHOULDER PAIN
AND HEADACHES

By. Dr. C. Lance West, D.C.

ABSTRACT: Using digital pressure on trigger points on the transverse processes, intertransverse space rib heads and intercostal spaces as well as around the scapulae, on the upper trapezius muscle and sub-occipital area can greatly assist in the relief of pain and the chronic recurrence of problems in the head, neck and shoulders which persist after all the Applied Kinesiological procedures have been used.

It is a known fact that certain sensitive points in the body, of such low threshold value, that by their very being, with or without any external stimulation can fire unlawful impulses into various nerve circuits.

A problem is then produced on these nerve circuits and the longer it persists, the deeper and more chronic it becomes. These points are called Trigger Points.

We know that ligaments and tendons, due to their rich supply of sensory receptors and proprioceptors possess the ability to exhibit trigger points. This being true, these trigger points in the tendon, or ligament can produce neuropathy in an area, as well as refer pain to many remote points.

For good health, the body should be in good structural balance thus allowing normal movement of joints, muscles, tendons and ligaments for any changes whether we are walking, running, sitting, standing, jumping, etc. Frequently trauma, micro-trauma, stress or improper nutrition can be responsible for the production of these trigger points, and the longer the duration of these unlawful impulses, the wider the range of their involvement in producing hypo-hypertonic muscles, ligaments and tendons, thus causing abnormal tone and often structural misalignment and pain. Most often, problems such as these are merely compensations by the body and frequently the pain is a mechanism in which the body is asking for help.

My re-discovered interest in a trigger point technic began a couple of years ago when I was treating several patients who had been involved in some severe traumas such as whiplash injuries, falls and direct blows to the head or neck, as in boxing or fisticuffs. After I had thoroughly checked and fixed all indicators present by Applied Kinesiological procedures, the patients, while greatly improved, seemed to plateau at a level where I could no longer find causes for their complaints. As I was using exploratory palpation and deep palpation on the neck and spine, frequently a patient would experience an exaggeration of the chronic pain he was complaining about. This started me searching for specific areas that might be related to the symptom and thus I discovered the location of certain trigger points that at first exaggerated their pain, but as I repeatedly treated these same areas, the sensitivity of the trigger points greatly diminished, and so did the referred pain.

It was gratifying to discover this, and by trial and error I found specific points located along the transverse and inter-transverse, as well as in the upper trapezius and along and around the scapula and up under the occiput.

Many years ago, I had taken Dr. Raymond Nimmo's course on Trigger Point Therapy and had never really learned or used the technic, but as I found these sensitive areas, I began to search for some of the notes I had taken at the time during Dr. Nimmo's course, and I found some references to the trigger points and the locations I was using. So, I began to check more of these chronic recurrent patients for trigger points, and was very pleased to be able to achieve relief and elimination of their chronic complaints.

LOCATING TRIGGER POINTS

Begin along the spine on the transverse processes, using a finger tip or thumb, move slowly over each transverse process and ask the patient to tell you if you contact a point that is hypersensitive. Mark that point and continue to move up to the next. Once you have checked both sides of the spine on the transverse processes, begin again, and this time check the junction of the rib and transverse along both sides of the spine, marking the hypersensitive areas.

Next, check the intercostal areas close to the rib heads, and if hypersensitive, mark these also. Now go to the medial margin of the

scapula and check from inferior to superior to find any active trigger points, if present, mark these. Then go into the scapula, starting at the inferior tip and move up across and down slowly, noting any points that are hypersensitive. Next check the posterior lateral margin of the upper trapezius, and from there check the sub-occipital area, going from one mastoid, across to the opposite, marking any involved areas. In the sub-occipital area, you might have to use a little more pressure because of the contour of the occiput.

Once you have located and marked the trigger points that are hypersensitive, you can begin treating them by holding each one with a firm pressure for about 5 or 6 seconds - once you have treated each one - go back to the first and check with the patient to see if it is still hypersensitive. Frequently the sensitivity will be greatly diminished after the second or third contact, but occasionally it may take 5 or 6 contacts to neutralize the sensitivity. The sensitivity will definitely improve if you are on the exact trigger point.

Trigger points are less than 1/4" in diameter, so if you are not on it, you will not get the reduction in sensitivity. Usually there will only be a few trigger points that require treating and it usually only takes a brief period to locate and treat these points. The immediate relief experienced by the patients is very rewarding.

SUMMARY: If, after applying all Applied Kinesiological procedures and there still seems to be a pain

SUMMARY (CONT'D) or ache persisting in the head, neck or shoulders, try using this technic and I'm sure you will experience good results, and achieve a great patient response and appreciation.

In treating trigger points on the vertebral transverse process - the rib heads and the intercostal spaces, you can use a small "Nimmo" T-bar which has a rubber tip that is narrower than your finger. The rubber tip can be turned for a wider contact. In areas other than along the spine and ribs, use your fingertip or thumb in order to cushion the pressure and avoid injuring the tissue underneath your contact.

NOTE:

"T" Bars come in 2 sizes, Large and Small.
Bars may be purchased from

Norman E. Smith
1300 Elizabeth Road
Granbury, Texas 76048

DEVELOPING PRACTICAL "HANDS ON" WORKSHOP
AND STUDY GROUPS FOR APPLIED KINESIOLOGISTS

By Dr. C. Lance West, D.C.

ABSTRACT: To promote efficiency and stimulate enthusiasm in the Practice of Applied Kinesiology. The 100 hour syllabus course developed by Dr. David Walther can be implemented by study groups and practical "hands on" workshops monitored by advanced Applied Kinesiology Doctors who are not yet Diplomates, but who are proficient and involved in a full Applied Kinesiology practice.

It has been my experience since I have been in Applied Kinesiology, that many of those who attend classes regularly fail to practice Applied Kinesiology because they are already involved in a full time, busy practice, and do not feel competent enough to use the things they are being taught in class. They complain that they haven't time to practice on their patients. They feel inadequate and incompetent in Applied Kinesiology skills, therefore do not utilize this great science as much as they would if they were more skillful and confident.

Since I have attended many Applied Kinesiology seminars in the past eight years, I have observed first hand how many of those who have been attending many sessions really have very little idea how to utilize Applied Kinesiology in their practices.

Frequently on the week-end that I attend these seminars, I spend much time using Applied Kinesiology to treat other D.C.'s, and because of their interest and encouragement, I asked Dr. Goodheart if it would be alright for me to monitor and assist other D.C.'s in learning basic things in Applied Kinesiology, like posture analysis, muscle testing, application of Neurolymphatic and Neurovascular reflexes, etc.

With Dr. Goodheart's permission and encouragement, Dr. Karl Hynes of East Greenville, Pa., and I started our first "Practical Hands On" workshop with about a dozen D.C.'s who had completed at least the 100 hour syllabus program attending. The results of the workshop were very gratifying, and the doctors enthusiasm for using Applied Kinesiology was really worth the work of setting up the workshop.

All of those attending the workshops enthusiastically practiced each phase and really began developing their skills in analysis, muscle testing and increased their abilities to find and fix many things they had never done as successfully or thoroughly before.

Many who were not practicing Applied Kinesiology began using it more and more in their offices. During the following workshops, both Dr. Hynes and myself could see a great improvement in the doctors' skills and their confidence.

Most teaching Diplomates have relatively large classes and a great amount of material to teach in a 10 hour session - thus limiting the possibility of much work-shopping and monitoring. My suggestion is that the teaching diplomate encourage the better, more enthusiastic Applied Kinesiology student (doctors) in their classes to form small, local study groups to meet regularly and review and aid each other in becoming really efficient in the practice of Applied Kinesiology.

As in all things, when we do something well, we really enjoy it more and are thus better equipped to render a better, more efficient service, with a great deal less effort and much more satisfaction.

SUMMARY: We really need many more highly skilled practicing Applied Kinesiologists, and by supplementing the Applied Kinesiology seminars with practical 'hands on' practice workshops and study groups, we encourage and help those who are interested to become more skillful and thus they feel more confident and therefore their enthusiasm attracts others who are not yet into Applied Kinesiology.

A condensed summary of the major muscles used in Applied Kinesiology, the area of body involved, as well as the neurolymphatic and neurovascular reflexes with nutrition supplementation recommendations and acupuncture meridian identification for quick reference purposes for review and learning during "hands on" workshop practice and study sessions.

Reference: Applied Kinesiology, The Advanced Approach in Chiropractic Workshop Manual by David S. Walther, D.C.
Pages 22 and 58 through 130.

Reference: Additional Nutritional Muscular Testing Reference by V. M. Nutri Food, Inc. (Captured Nutrition, P. O. Box 286 -1012 Host Drive, Lake Geneva, Wi. 53147. Telephone 1-800-242-4844.

Dr. C. Lance West, D.C.

	MUSCLE & PAGE #	NL (ANT)	NL (POST)
LOW BACK	ABDOMINALS (66-68)	UPPER 1/3 OF ANTERO MEDIAL THIGH	PSIS
LOW BACK	ADDUCTORS (72-73)	BELOW NIPPLE	BELOW INFERIOR ANGLE OF SCAPULA
ARM	BICEPS (BRACHII) (111)	BETWEEN 2-3 RIBS 3" FROM STERNUM	AXIS LAMINA
SHOULDER ARM	BRACHIO RADIALIS (112)	ENTIRE PECTORALIS MAJOR & MINOR	OVER INSERTION OF SUPRASPINATUS
SHOULDER ARM	CORACOBRACHIALIS (109)	3-5 RIB SPACES NEAR STERNUM	3-4 DORSAL NEAR LAMINAE
SHOULDER	DELTOIDS (106-108)	3-4 RIB SPACE NEAR STERNUM	3-4 DORSAL NEAR LAMINAE
	DIAPHRAGM (130)	ENTIRE LENGTH OF STERNUM	LATERAL TO 10-D TRANSVERSE ON RIGHT
SPINE & NECK EX- TENSORS	ERECTOR SPINAE (SACROSPINALIS) (3 ILIOCOSTALIS) (3 LONGISSIMUS) (3 SPINALIS) (60-61 & 63)	INFERIOR TO SYM. PUBIS AT HEIGHT OF OBTURATORS - LATERAL TO UMBILICUS	BETWEEN PSIS & & 5-L SPINOUS
SPINE & NECK EX- TENSORS	ERECTOR SPINAE (3 SEMISPINALIS) (62)	1-2 RIB SPACE 3½" FROM STERNUM	AXIS LAMINA
FOOT - LEG	FLEXOR HALLICUS LONGUS & BREVIS (89-90)	INFERIOR TO SYM. PUBIS AT HEIGHT OF OBTURATOR	BETWEEN PSIS & 5-L SP.

NV	NUTRITIONAL	CONDITION	
BILATERAL ON PARIETAL EMINENCE 2" POST TO FRONTAL PARIETAL SUTURE	E, DUODENAL SUBSTANCE STANCE, NUTRI-E DUOGLAN	WEAK BACK, STUFFY NOSE	SMALL INTESTINE
ON LAMBDOIDAL SUTURE BETWEEN LAMBDA 3 ASTERION	ENDOCRINE EXTRACTS NUTRI-E, OVERYGLAN-F ORCHICGLAN-M, E	ELBOW PAIN, CONSTANT FEMALE DRIBBLE	CIRCULATION SEX
FRONTAL BONE EMINENCE	HCL ACID, DUODONAL EXTRACT, CHLOROPHYLL COMPLEX, NUTRI-CIDIC STOMAPLEX-CHLOROPLEX		STOMACH
		INSOMNIA NERVOUSNESS	STOMACH
BREGMA	C, LUNG EXTRACT, C-500 PNEUMAGLAN, NUTRI-RNA	TROUBLE COMBING HAIR FRONT SHOULDER	LUNG
BREGMA	C, LUNG EXTRACT, RNA, PNEUMOGLAN C-500, NUTRI-RNA	FRONT SHOULDER	LUNG
BREGMA, LAMBDA, 1" ABOVE LAMBDA	C	HEADACHES, FATIGUE PROSTATITIS	
BILATERAL FRONTAL BONE EMINENCE	ACP, E, CALCIUM		BLADDER
RAMUS OF JAW ZYGOMA	B ₆ NIACINAMIDE ORGANIC IODINE		BLADDER
BILATERAL FRONTAL BONE EMINENCE	RAW BONE CONCENTRATE OSTEOGLAN		CIRCULATION SEX

	MUSCLE & PAGE #	NL (ANT)	NL (POST)
LEG	GASTROCNEMIUS (82)	2" ABOVE UMBILICUS AND 1" FROM MIDLINE	11-12-D BILATERAL NEAR LAMINAE
LOW BACK	GLUTEUS MAXIMUS (58)	ANTEROLATERAL THIGH	BETWEEN PSIS & 5-L SP.
LOW BACK	GLUTEUS - MEDIUS & MINIMUS (71)	UPPER SYMPHYSIS PUBIS	BETWEEN PSIS & 5-L SP.
LOW BACK	GRACILIS (76)	2" ABOVE UMBILICUS 1" FROM MIDLINE	11-12-D BILATERAL
LOW BACK	HAMSTRINGS (2 MEDIAL) (1 LATERAL) (77-78)	LESSER TROCHANTER OF FEMUR	UPPER SACROILIAC ARTICULATION BY PSIS
LOW BACK	ILIACUS (70)	1" ABOVE UMBILICUS & 1" FROM MIDLINE	12-D 1-L BETWEEN SPINOUS & TRANSVERSE PROCESS
SHOULDER	INFRASPINATUS (104)	2-3 RIB SPACE NEAR STERNUM	2-D LAMINA
SHOULDER	LATISSIMUS DORSI (96)	7-8 RIB SPACE ON THE LEFT AT RIB CARTILAGE JUNCTION	7-8-D ON LAMINAE AT LEFT
SHOULDER	LEVATOR SCAPULA (95)		BETWEEN C-7 & D-1, 1" FROM SPINE, BELLY OF TERES MINOR

NV	NUTRITIONAL	CONDITION	CIRCULATION SEX
LAMBDA	ADRENAL EXTRACT, VIT C ADRENOGLAN 80-160 ADRENOPEX-220 C-500	LOW BACK & SACRAL PAIN TROUBLE KNEEL- ING, CALF PAIN	CIRCULATION SEX
ON LAMBDOIDAL SUTURE BETWEEN LAMBDA & ASTERON	E, MALE OR FEMALE ENDOCRINE EXTRACTS, NUTRI-E, ORCHICGLAN-M OVARYGLAN-F, PROSTA- GLAN, UTERGLAN	TROUBLE ARISING FROM CHAIR OR BENDING, IMPOTENCE	CIRCULATION SEX
ON PARIETAL EMINENCE, POSTERIOR ASPECT	E, MALE OR FEMALE ENDOCRINE EXTRACTS, UTERGLAN, PROSTAGLAN	MENSTRUAL CRAMPS, PROSTATITIS, LOW BACK, IMPOTENCE, LATERAL BREAST PAIN	CIRCULATION SEX
LAMBDA	ADRENOGLAN 80 & 160 C-500, ADRENOPEX-220 ADRENAL EXTRACT	HYPOADRENIA	CIRCULATION SEX
1" ABOVE LAMBDA	E, HCL ACID (IF HEMOR- RHOIDS, USE BIOROL & APOPEX, NUTRI-E, NUTRI-342, NUTRI-CIDIC AND/OR NUTRI-CAL CHELATE	HEMORRHOIDS WEAK LEGS	LARGE INTESTINE
1½" LATERAL TO EXTERNAL OCCIPITAL PROTUBERANCE	A, E, KIDNEY EXTRACT KIDGLAN, NUTRI-E		KIDNEY
1" BELOW PTERION & AT THE JUNCTION OF 1ST RIB CLAVICLE & STERNUM	THYROID EXTRACT & ORGANIC IODINE, NUTRI-E, THYRODGLAN, TRI-GLAN-42		TRIPLE WARMER
SUPERIOR TO TEMP- ORAL BONE & SLIGHTLY POSTERIOR TO EXTER- NAL AUDITORY MEATUS	A, F, BETAINE HCL, PANCREAS EXTRACT, PANGLAN-330, NUTRI- CHROM-CHELATE	DIABETES, PANCREA- TIC PROBLEMS, SACRO- ILIAC CASES, HYPOGLYCEMIA	SPLEEN
BREGMA	B, DUODENAL EX- TRACT, NUTRI-BETA DUIGLAN	CERVICALS ROTATED ANTERIOR ON WEAK SIDE	STOMACH

MUSCLE & PAGE

NL (ANT)

NL (POST)

NECK SPINE	LONGISSMUS (61) (THORACIS) (CERVI- CIS) (CAPITUS)	INFERIOR TO SYMPHYSIS PUBIS AT HEIGHT OF OBTURATORS & LATERAL TO UMBILICUS	BETWEEN PSIS & 5-L SP.
NECK FLEXOR	LONGUS (CAPITUS) (COLLI) (120)	1-2 RIB SPACE 3½" FROM STERNUM	AXIS LAMINAE
HAND	OPPONENS (POLLICUS) (DIGITI MINIMI) (116-117)	INFERIOR TO SYMPHYSIS PUBIS AT HEIGHT OF OBTURATOR	BETWEEN PSIS 5-L SP.
SHOULDER	PECTORALIS (MAJOR CLAVICULAR) (97)	6-7 RIB SPACE FROM MAMMILARY LINE TO STERNUM ON LEFT	6-7-D NEAR LAMINAE
CHEST	PECTORALIS (MAJOR STERNAL) (98)	5-6 RIB SPACE FROM MAMMILARY LINE TO STERNUM ON RIGHT	5-6-D NEAR LAMINAE
SHOULDER	PECTORALIS MINOR (99)	CHECK FOR RETROGRADE LYMPHATIC IF PRESENT 1" ABOVE XYPHOID ON STERNUM	
FEET	PERONEUS (BREVIS, LONGUS, TERTIUS) (85-86)	INFERIOR SYMPHYSIS PUBIS	L-5 TRANSVERSE & SACRUM BETWEEN PSIS & 5-L SPINOUS
PELVIC	PIRIFORMIS (81)	SYMPHYSIS PUBIS	BETWEEN PSIS & 5-L SPINOUS
KNEE	POPLITEUS (34)	5-6 RIB SPACE FROM MAMILLARY LINE TO STERNUM ON RIGHT	5-6-D LAMINAE ON RIGHT

NV

NUTRITIONAL

CONDITION

BILATERAL FRONTAL BONE EMINENCE	ACP, E, CALCIUM		BLADDER
RASMUS OF JAW BELOW ZYGOMA	B ₅ NIACINAMIDE NUTRI-NEURO		STOMACH
BILATERAL FRONTAL BONE EMINENCE	RAW BONE CONCENTRATE CALEODINE OR OSTOGEN OSTEOGLAN, NUTRI-CAL CHELATE		STOMACH
BILATERAL FRONTAL BONE EMINENCE	D, HCL ACID, STOMAPLEX, NUTRI-BETA, NUTRI-CIDIC, HYPOGEST	ALLERGIES	STOMACH
BILATERAL 1½" UP FROM FRONTAL BULGES ON ANTERIOR FRONTAL BONE 1½" FROM MID-LINE	A, BILE SALTS, LIVER EXTRACTS, LIVA-GLAN NUTRI-DUAZYME		LIVER
	BRAIN EXTRACT, RNA, NIACINAMIDE, NIACIN, B COMPLEX, NUTRI-RNA MYLEOGLAN, NUTRI-BETA 1500 UNITS A EMULSION		
FRONTAL EMINENCE BILATERAL FRONTAL BONE EMINENCES	CALCIUM, B COMPLEX, (AVOID CAFFEINE, ACID FOODS) NUTRI-BETA, NUTRI-CAL CHELATE	PIGEON TOED, ANTERIOR ANKLE SWELLING (LONGUS)	BLADDER
ON PARIETAL EMINENCE POSTERIOR ASPECT	A, NATURAL ENDOCRINE EXTRACTS, UTERGLAN PROSTAGLAN, NUTRI-E	CATEGORY I, TROUBLE CROSSING LEGS & TYING SHOES	CIRCULATION: SEX
MEDIAL ASPECT OF KNEE AT MENISCUS	A, NUTRI-DUA-ZYME	GALL BLADDER, KNEES HYPEREXTEND	GALL BLADDER

	MUSCLE & PAGE #	NL (ANT)	NL (POST)
ARM WRIST	PRONATORS (TERES QUADRATUS) (114-115)	BEHIND AREOLA	BELOW INFERIOR ANGLE OF SCAPULA
LOW BACK	PSOAS (69)	1" ABOVE UMBILICUS & 1" FROM MIDLINE	12-D 1-L BETWEEN SPINOUS & TRANSVERSE PROCESS
BACK	QUADRATUS LUMBORUM (65)		D-11 LAMINIA-ALSO AT END & UPPER EDGE OF 12TH RIB ON RIGHT SIDE
PELVIC	QUADRICEPS (79-80)	ALONG COSTOCHONDRAL JUNCTION 8-11 RIBS	8-11-D LAMINAE
SHOULDER	RHOMBOIDS (MAJOR MINOR) (94)	6-7 RIB SPACE FROM MAMMILLARY LINE TO STERNUM ON LEFT	6-7-D LAMINAE
SPINE	SACROSPINALIS (59)	SYMPHYSIS PUBIS & LATERAL TO UMBILICUS	L-2 TRANSVERSE
PELVIC	SARTORIUS (75)	2" ABOVE UMBILICUS & 1" FROM MIDLINE	11-12-D BILATERAL NEAR LAMINAE
SHOULDER	SERRATUS ANTICUS (93)	3-4-5 RIB SPACE NEAR STERNUM	3-4-5 DORSAL LATERAL TO TRANSVERSE
LEG BACK	SOLEUS (83)	2" ABOVE UMBILICUS & 1" FROM MIDLINE	11-12=D BILATERAL NEAR LAMINAE
NECK EXTENSORS	SPLenius CAPITUS & CERVICIS, SEMI-SPINALIS CAPITUS & CERVICIS (122-123)	1-2 INTERCOSTAL SPACE	2-C LAMINA

NV	NUTRITIONAL	CONDITION	
ON LAMBDOIDAL SUTURE BETWEEN LAMBDA & ASTERION			
1½" LATERAL TO EXTERNAL OCCIPITAL PROTUBERANCE	KID GLAN, NUTRI E A, E, RENATROPHIN	LOW BACK AT NIGHT	KIDNEY
ON PARIETAL EMINENCE POSTERIOR ASPECT	C, E, A, NUTRI-E C-500	APPENDICITIS OPEN ICV	LARGE INTESTINE
ON PARIETAL EMINENCE POSTERIOR ASPECT	B COMPLEX, SMALL INTESTINE CONCENTRATES DUO-GLAN, NUTRI-BETA, NUTRI-VASCO	TROUBLE CLIMBING STAIRS, INDIGESTION, NARCOLEPSY, STUFFY NOSE, ICV	SMALL INTESTINE
FRONTAL EMINENCE	A, STOMAPLEX HYPOGEST NUTRI-CIDIC	SHOULDER PAIN AT NIGHT	STOMACH
FRONTAL EMINENCE	ACP, E, CALCIUM C-500 NUTRI-E, NUTRI-CAL CHELATE	"C" CURVE SPINE	BLADDER
LAMBDA	ADRENAL EXTRACT, C-500, ADRENOGLAN 30 & 160, ADRENOPLEX-220	POSTERIOR ILIUM, LOW BLOOD SUGAR, EARLY MORNING FATIGUE HYPOADRENIA	CIRCULATION SEX
BREGMA	LUNG EXTRACT, C-500 PNEUMAGLAN, C, NUTRI-RNA	CHEST & DIAPHRAGM PROBLEMS	LUNG
LAMBDA	ADRENAL EXTRACT, ADRENOGLAN 80-160 ADRENOPLEX-220 C-500	ANTERIOR PELVIC TILT FORWARD LEAN	CIRCULATION SEX
RASMUS AT JAW BELOW ZYGOMA	B ₆ NIACINAMIDE ORGANIC IODINE	SINUSES	STOMACH

	MUSCLE & PAGE #	NL (ANT)	NL (POST)
SHOULDER	SUBCLAVIUS (100)	JUNCTION OF CLAVICLE STERNUM & 1ST RIB	T-1 LAMINAE
SHOULDER	SUBSCAPULARIS (105)	2-3 RIB SPACE NEAR STERNUM	2-3-D BETWEEN TRANSVERSE PROCESS
ELBOW	SUPINATOR (ELBOW) (113)	6-7 RIB SPACE FROM MAMMILLARY LINE TO STERNUM ON LEFT	6-7-D NEAR LAMINAE ON LEFT
SHOULDER	SUPRASPINATUS (101)	BELOW CORACOID PROCESS	POSTERIOR TO TRANSVERSE PROCESS OF ATLAS
PELVIC	TENSOR FASCIA LATA (74)	ANTEROLATERAL THIGH BILATERAL	TRIANGLE AREA WITH APEXES 2-L 4-L CREST OF ILIUM
SHOULDER	TERES MAJOR (102)	2-3 RIB SPACE 2½" FROM STERNUM	2-3-D LAMINAE
SHOULDER	TERES MINOR (THYROID PUMP) (103)	2-3 RIB SPACE NEAR STERNUM	2-D LAMINA
FEET	TIBIALIS, ANTERIOR (87)	¾" ABOVE SYMPHYSIS PUBIS	UPPER EDGE OF AXIS TRANSVERSE

NV	NUTRITIONAL	CONDITION	
		FROZEN SHOULDER TROUBLE RAISING ARM STRAIGHT OUT	
BREGMA	CARDOGLAN, NUTRI-E C-500, NUTRI-BETA, E, C, B COMPLEX, HEART EXTRACT	ALL HEART CASES	HEART
BILATERAL FRONTAL BONE EMINENCE			
BREGMA	MYLEOGLAN, RNA, BRAIN EXTRACT, NUTRI-RNA	SLOW LEARNERS, WEAK MINDED, CAN'T MOVE ARM	CONCEPTION VESSEL
POSTERIOR ASPECT OF PARIETAL EMINENCE	ACIDOPHILUS, FENUGEEK & COMFREY, VIT D, (IF BILATERAL, USE IRON) INCREASE WATER, NUTRI- LACTO, NUTRI-ZYME HEMOPLEX, NUTRI-FE CHELATE, VIT B12	BREAST SORENESS SPASTIC COLON CONSTIPATION SCIATICA, ANEMIA	LARGE INTESTINE
1" BELOW PTERION & AT JUNCTION OF 1ST RIB, CLAVICLE & STERNUM	ACID ALKALINE BALANCE IF EXCESSIVE SWEATING KELP & ORGANIC MINERALS NUTRI-E, THYROIDGLAN TRI-GLAN-43		GOVERNING VESSEL
1" BELOW PTERION & AT JUNCTION OF 1ST RIB, CLAVICLE & STERNUM	THYROID EXTRACT, OR- GANIC IODINE, NUTRI-E THYROIDGLAN, TRI- GLAN-42	EPLIEPSY, HIGH 3/P RESPIRATORY PROBLEMS INFECTIONS, THYROID TORTICOLLIS, LOW TEMP	TRIPLE WARMER
FRONTAL BONE EMINENCE	A, C-500 NUTRI-BETA NUTRI-CAL-CHELATE	URETHRA-RECTAL FISSURES (IF TIGHT) POSTERIOR ILIUM	BLADDER

MUSCLE & PAGE # NL (ANT) NL (POST)

FEET	TIBIALIS POSTERIOR (88)	2" ABOVE UMBILICUS & 1" FROM MIDLINE	11-12-D BILATERAL
RIBS	TRANSVEROSPINALIS ROTATOIRES-LONGUS & BREVIS, LEVATOR COSTORUM (64)	K 27 JUNCTION STERNUM, CLAVICLE 1ST RIB	
SCAPULA	TRAPEZIUS (LOWER & MID) (91-92)	7-8 RIB SPACES ON LEFT	7-8-D NEAR LAMINAE
NECK	TRAPEZIUS (UPPER) (121)	3" OF ANTERIOR UPPER ARM	POSTERIOR ARCH OF ATLAS TO LATERAL MASS
ARM	TRICEPS BRACHII & ANCONEUS (110)	7-8 RIB SPACE LEFT AT RIB CARTILAGE JUNCTION	7-3-D NEAR LAMINAE ON LEFT
NECK FLEXORS	STERNOCLEIDOMASTOID +5 OTHERS (118-119)	1-2 RIB SPACE 3½" FROM STERNUM	AXIS LAMINA
	5 TMJ MUSCLES (128-129)	BETWEEN 1 & 4 RIBS NEXT TO STERNUM	D-2, 3, 4 LAMINA
	REACTIVE MUSCLES (22)		

NV	NUTRITIONAL	CONDITION	
LAMBDA	ADRENOGLAN 80 & 160 ADRENOGLAN 220 C-500		CIRCULATION SEX
		FIXATIONS & RIB LESIONS	
1" ABOVE LAMBDA	SPLEEN EXTRACT C-500 CALCIUM, THYMUS EXTRACT, SPLENOGLAN C, THYMOGLAN, TRI- GLAN, NUTRI CAL CHELATE	PNEUMONIA, INFECTION, FEVER, TONSILLITIS, SORE THROAT, ETC.	SPLEEN
TEMPORAL SPHENOIDAL SUTURE, JUST ABOVE ZYGOMATIC ARCH OF TEMPORAL BONE	A, B, F, G. NUTRI-BETA	EYE PROBLEMS, CON- JUNCTITIS, EAR INFECTIONS, NIGHT BLINDNESS	KIDNEY
SUPERIOR TO TEMPORAL BONE, SLIGHTLY POST- IOR TO E.A.M.	HCL ACID, PANCREAS EXTRACT, PAN-GLAN 330, NUTRI-CIDIC, A	ELBOW PROBLEMS HYPOGLYCEMIA	SPLEEN
RAMUS OF JAW BELOW ZYGOMA	NIACINAMIDE, B ₆ AVOID JUNK FOODS NUTRI-NEURO	TORTICOLLIS	STOMACH
RASMUS OF JAW BELOW ZYGOMA			STOMACH

LIGAMENT INTERLINK RELATED
TO THE FIGURE "8" OF ENERGY & CATEGORY 1 & 2

by Dr. Paul A. White

Abstract

As you will remember Dr. Goodheart presented the figure "9" in Miami years ago. He related that energy travels in a figure "8" on the anterior portion of the trunk. The energy transverses from the left shoulder to the right femoral head, then crossing horizontally to the left femoral head, again crossing diagonally to the right shoulder and then passing again horizontally to the left shoulder. Noting that there seems to be a great number of pelvic categories related with the ligament interlink and further taking into consideration that there is a horizontal energy exchange thru the pelvic area as also there is near the hyoid area.

The hyoid is a very intricate part of the ligament interlink technic, which will be explained in great detail later. The pelvic unit could possibly be the Lovett brother or the complimentary counter part to the hyoid unit.

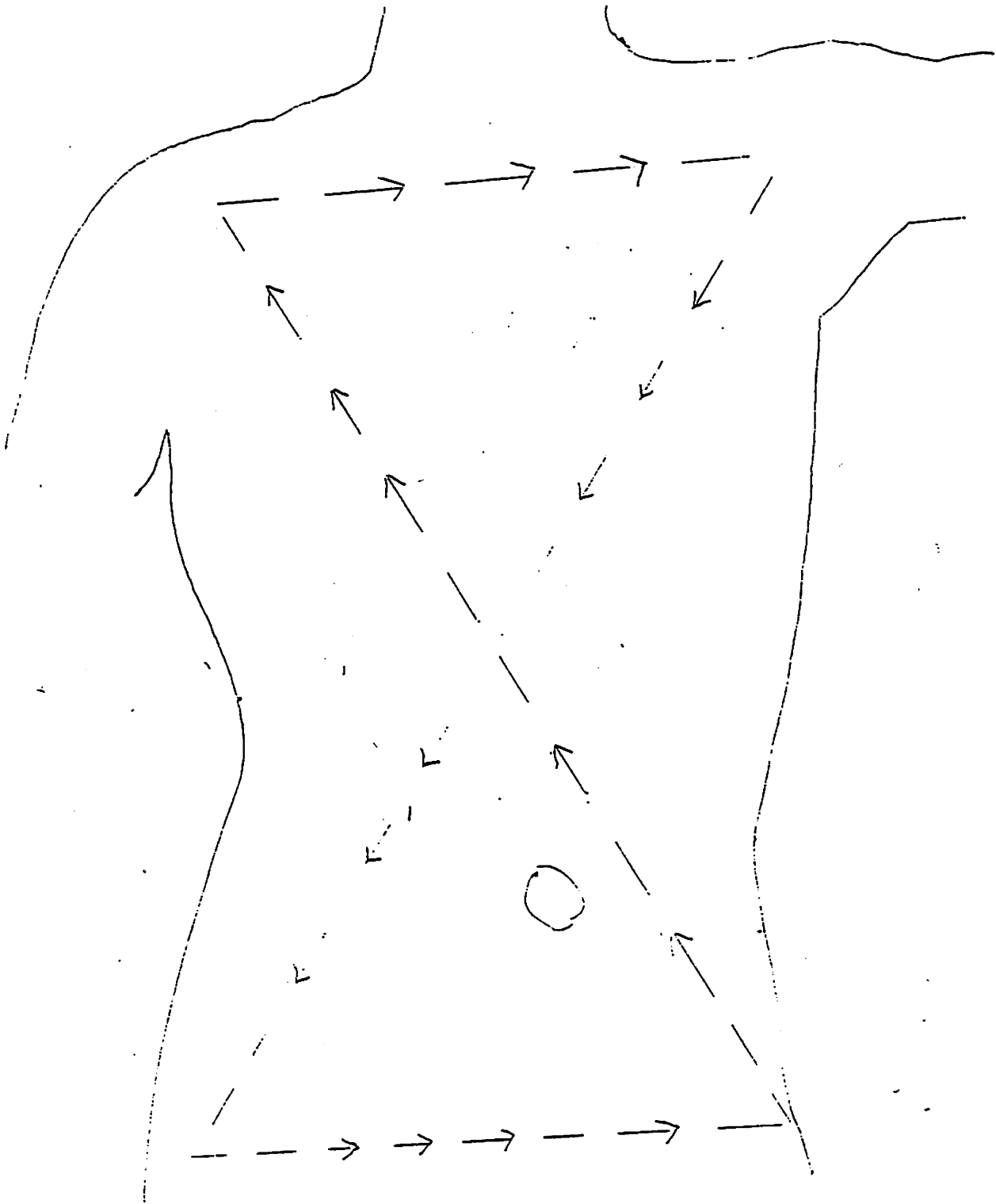
Procedure For The Ligament Interlink

Dr. Goodheart noted that the body moves in a counter lateral fashion. Namely, the left leg with the right arm. In his further research on ligament interlink it was discovered that a person that has a problem with the right wrist (for example) that it can be correlated with the left ankle. He noted further that on a counter lateral basis that the fingers correlate with the toes, the wrists with the ankles, the elbows with the knees and the shoulders with the hips. Credence is added to this by research done on a decerebrate and decerebellate cat.

This procedure is done by cutting the cat's spinal cord or brain stem at various levels. The cat is then suspended on slings, his foot pads are allowed to contact a tread mill. When the tread mill moves it causes the paws to move on one side, left front limb moving with the left hind limb. When the tread mill is speeded to normal gait the counter lateral movement begins. Namely, the right hind paw with the left front paw. This means you do not need your brain to walk with. The brain is needed to balance and to see with.

Man even though he is biped he is really quadraped. The arm and leg move in a reciprocal fashion. It is noted when examining laboratory animals while walking that flexor muscles receive bursts of activity which cause inhibition of the extensors, however the reverse is not true. There are no extensor bursts which

FIGURE "8"



cause inhibition of flexor muscles.

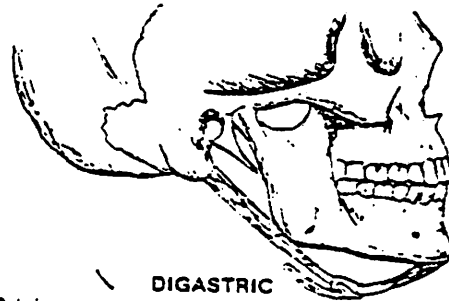
The ligament interlink procedure is done as follows:

- 1) Therapy localize the primary affected joint. For example the wrist in a carpal tunnel syndrome.
 - a) It may be necessary to shock, weight bear or change the angle of a joint in order to get a positive therapy localization.
- 2) Having the patient therapy localize to the primary joint problem should cause a previously strong muscle to weaken. At the same time therapy localization to the opposite counter lateral joint (the wrist goes with the opposite counter lateral ankle and so forth) should cause abolishment or neutralization of the previous positive therapy localization. Find the sore area on the secondary joint and activate it with intermittent hard pressure. Do this until the pain in the primary joint disappear or diminishes sharply. Retherapy localization of the primary joint using a strong indicator muscle should now be negative, if not activate the secondary joint until this happens. Dr. Goodheart has done this 130+ times with excellent results. We have found that manganese and 86 on a nutritional basis to be of value. Lateral joint problems in the primary joint area. It is also necessary to move the hyoid bone towards the secondary joint while activation takes place. Following this we spindle cell the hyoid in an effort to weaken, mainly the stylohyoid and the posterior digastric on the same side as the primary joint problem.



STYLOHYOID

Origin: Posterior border of styloid process of the temporal bone near the base.
Insertion: The body of the hyoid at its junction with the greater cornu, just above the omohyoid.
Action: Elevates and draws back the hyoid, which elongates the floor of the mouth.



DIGASTRIC

Origin:
 Posterior belly: mastoid notch of the temporal bone.
 Anterior Belly: Depression on the inner edge of the inferior border of the mandible close to the symphysis menti.
Insertion: Intermediate tendon connected to the great cornu of the hyoid by a fibrous loop.
Action: Depresses the mandible and can elevate the hyoid. Anterior belly draws the hyoid forward. Posterior belly draws the hyoid backward.

We have noted that unless a pelvic category, if it exists, is corrected, that each and every time the ligament interlink problem will return.

The Procedure For Detection and Correction of the Pelvic Category I

- A) Category I is a torquing of the total pelvic unit.
- B) A positive localization is noted when the patient places his right hand on the right sacroiliac joint and his left hand on the left sacroiliac joint, and the previously strong indicator muscle goes weak.
- C) Piriformis involvement: There is usually a piriformis involvement when a category I is found.
 - 1) The piriformis is tested in the clear with heel tension and with weight bearing.
- D) Other muscles involved in category I are the gluteus medius, gluteus maximus, sacrospinalis and quadratus lumborum.
- E) Nutritional supplementation would consist of Vitamin E, A, C and P.
- F) The cranial fault often found in the pelvic category is a torquing pattern of the cranium. Also test for a temporal bulge.
- G) A first rib and shoulder outlet syndrome is often times present in a category I. This problem will be sharply diminished upon correction of the same.
- H) Block a category I in the direction of correction.
 - 1) Always adjust with a multiple pelvic thrust on the non-involved side. (The side which does not double hand positive therapy localize.)

Category II

- A) An osseous fault between the sacrum and the innominate.
- B) A strong indicator muscle will go weak when therapy localizing the sacroiliac joint individually.
- C) The muscles of involvement in a posterior ilium are the: 1)sartorius
2)gracilis
- D) The muscles that would possibly be weak in a posterior ischium are the: 1)hamstrings
- E) The correlating condition with a posterior ilium is a blood sugar problem.
- F) The cranial fault involved is a temporal bulge.
- G) The posterior ilium will show on the short leg side an increase vertical height of the ilium as seen on x-ray, tenderness at the orgin insertion and belly of the sartorius.
- H) The additional findings in a posterior ischium is on the long leg side, you'll find decreased vertical height of the ilium as seen on x-ray, tenderness at the lower inguinal lateral area.
- I) The posterior ilium responds to Adrenal gland.
- J) The posterior ilium is corrected by outting the patient in a roll position and bringing the ilium forward.

Category II continued

- K) The posterior ischium is corrected by putting the patient in a roll position in an effort to bring the ischium forward.
- L) Correction can also be obtained by placing the patient in a supine position and applying the DeJarnette blocks in the direction of the correction. Both legs are then flexed and the feet are moved towards the short leg side.

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