SPECIAL AK 100 HOUR COURSE
SEMINAR NOTES
SESSION 1

Taught by
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This file is provided to enhance the learning experience. However, as you will see, it is devoid of graphics on several pages (apparently lost upon retrieval from old hard drive). Please feel free to use screenshots to fill in the blanks.

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SPECIAL AK 100 HOUR COURSE – TECHNIQUES YOU WILL LEARN

Session 1

Gait Analysis

Therapy Localization

Pain Relief Techniques
- Injury Recall Technique
- *Stop Your Pain Now!* Techniques
  - NSB (IPR)
  - Set Point (Touch and Tap)
  - LQM

Muscle Spindle Cell Manipulation
Golgi Tendon Organ Manipulation

Muscle Testing
- Postural Analysis
- Origin-Insertion Technique (with IRT)
- Chapman's Reflexes

Vertebral Challenge
- Flexor Reflex Afferent (FRA) Challenge for Subluxation Priority
- Coupled Mechanics
- Respiratory Adjusting

Essential Fatty Acids Supplementation for Controlling Inflammation
- Aspirin, Acetaminophen, and Ibuprofen Oral Challenge

PROTOCOL

1. Postural Analysis – Look for signs of muscle weakness
2. Find a weak muscle by muscle testing
3. Does Autogenic Facilitation strengthen?
   a. If no: use IRT
      i. Rubbing over area(s) of injury will strengthen weak muscle
   b. If yes: and recent injury: use NSB and/or Set Point Technique
   c. If muscle or ligament injury – use origin – insertion technique
4. Test oral aspirin, acetaminophen, ibuprofen mix
   a. If strengthens:
      i. Essential Fatty Acids (BCSO, FSO, EPA, etc.)
      ii. EFA Cofactors (B-6, Mg, Zn, Niacin)
5. TL Chapman's Reflex for weak muscle(s) – if positive: treat by rubbing
6. Check spine using FRA activity
   a. Vertebral Challenge to positive spinal area(s) to determine direction of correction
   b. Add spinal position to vertebral challenge to determine optimal spinal position for adjustment
7. For chronic pain, use LQM Technique

100 Hour AK Course – AK Rules

Session 1

THERAPY LOCALIZATION:

- THERAPY LOCALIZATION TELLS US WHERE A PROBLEM IS - IT DOES NOT TELL US WHAT A PROBLEM IS.

MUSCLE SPINDLE CELL ACTIVITY:

- IF AUTOGENIC FACILITATION (MUSCLE SPINDLE CELL TO STRENGTHEN) DOES NOT STRENGTHEN THE WEAK MUSCLE - USE INJURY RECALL TECHNIQUE (IRT).
    - RUBBING OVER AN ACTIVE INJURY WILL CAUSE A WEAK MUSCLE TO STRENGTHEN
- WHEN AUTOGENIC INHIBITION (MUSCLE SPINDLE CELL TO WEAKEN) DOES NOT WEAKEN A SPECIFIC MUSCLE (OVER FACILITATION), DO NOT USE THIS MUSCLE AS AN INDICATOR MUSCLE.

TONIC LABYRINTHINE REFLEXES:

- TLR RULE #1: EXTENSORS SHOULD *NEVER* BE WEAK SUPINE FLEXORS SHOULD *NEVER* BE WEAK PRONE.
- TLR RULE #2: PATIENT SUPINE. FLEXOR WEAKNESS *SHOULD BE* NEGATED BY TURNING HEAD TO OPPOSITE SIDE.
- WHEN TESTING EXTENSOR MUSCLES WITH FACE UP OR IN UPRIGHT POSITIONS, GENTLY CLENCH TEETH TO TEMPORARILY SUPERCEDE TLR.

CHAPMAN'S (NEUROLYMPHATIC) REFLEXES:

- TREATING CHAPMAN'S REFLEXES RESULTS IN A NET PARASYMPATHETIC EFFECT TO THE RELATED ORGAN.

VERTEBRAL CHALLENGE:

- IN VERTEBRAL CHALLENGING, ALWAYS ADJUST IN THE DIRECTION THAT CHALLENGING (PUSHING AND RELEASING) CAUSES MUSCLE WEAKNESS.
- IN VERTEBRAL CHALLENGING, ADJUST WITH THE SPINE IN THE POSITION THAT MAINTAINS THE VERTEBRAL CHALLENGE WEAKNESS.
- IN RESPIRATORY ADJUSTING, ADJUST IN THE DIRECTION OF CHALLENGE WEAKNESS COINCIDENT WITH THE PHASE OF RESPIRATION WHICH NEGATES THE CHALLENGE WEAKNESS.

GENERAL:

- DO NOT USE THE "ARM PULL DOWN" TEST.
- DO NOT USE MUSCLE TESTING TO PROVE MUSCLE TESTING.

SESSION 1 MUSCLES – CLINICAL INDICATIONS OF WEAKNESS

Latissimus Dorsi (in Latin – means "widest part of the back")
Function: Extends, medial rotates, and adducts humerus
Clinical Indications associated with weakness:

- Upper trapezius tightness
- Difficulty Swimming or paddling a canoe
- Works with Pectoralis Major in holding shoulder down during ordinary pushing, & on parallel bars, etc.
- Sacroiliac problems – especially during lifting
- Rarely: tight causing ipsilateral frozen shoulder due to weakness on opposite side from frozen shoulder
- Pancreas – blood sugar handling; digestive enzyme deficiency

Pectoralis Major, Clavicular Division (PMC)
Function: Adduction; flexion (runs nearly 90 degrees to PMS)
Clinical Indications associated with weakness:

- Throwing problems
- Emotional Stress Overload
- Symptoms associated with a need for B vitamins
- Stomach problems including hiatal hernia, helicobacter pylori infection (ulcers)
- Bilateral weakness associated with allergies, HCl need, temporal bulge cranial fault

Pectoralis Major, Sternal Division (PMS)
Function: Flexes humerus; extends humerus when already flexed
Clinical Indications associated with weakness:

- Tightness in rhomboid belly (also could result from inhibited serratus anterior)
- Throwing problems
- Vitamin A symptoms – night blindness and other visual problems
- Fat metabolism problems (increased cholesterol and/or triglycerides)
- Biliary problems and bile salts
- Systemic toxicity and detoxification problems

Psoas
Function: Flexes hip, laterally rotates hip
Clinical Indications associated with weakness:

- Low back pain
- Lumbar scoliosis
- Bilateral weakness – flattened lumbar lordosis
- Supine – greater foot turn in on inhibited side
- Ipsilateral foot pronation
- Kidney problems including renal lithiasis

Tensor Fascia Lata
Function: Abducts, flexes, and medial rotates hip; participates in knee extension and lateral stability to knee
Clinical Indications associated with weakness:

- Lateral knee problems
- Decreased hip abduction / hip arthritis
- Sacroiliac subluxation recurrence
- Meralgia paresthetica
- All forms of colon problems and dysbiosis

Piriformis
Function: Lateral hip rotation
Clinical Indications associated with weakness:

- Greater trochanter pain
- Weak in side of sciatica – piriformis "drops down" on sciatic nerve and stretches it
- Supine – greater foot turn in on inhibited side (DD from psoas inhibition)
- Sacrum subluxations – often results in neck pain

INJURY RECALL TECHNIQUE

Walter H. Schmitt, Jr., D.C.

Injury Recall Technique (IRT) was taught to me by my friend, Dr. Gordon Bronston, a Southfield, Michigan podiatrist. Because it has immense clinical value and is practiced by only a handful of podiatrists, I adapted the technique in the late 1980s for use by other health care practitioners.

Dr. Bronston taught me that "the single most important factor in a patient's history is the history of injury and trauma." I have learned that IRT is not duplicated by any other technique. In my clinical experience, IRT has been present in about 80% of my patients. In these patients, about 80% of their previous injuries responded to IRT. Although these are just general numbers, they give the idea of the widespread value of applying IRT.

DIAGNOSIS FOR HEAD AND NECK PROBLEMS:
1. TL (patient digital contact) to the area of pervious trauma on the head or neck is negative.
2. TL to the same area with the head and neck in extension weakens a strong indicator muscle.

TREATMENT FOR HEAD AND NECK PROBLEMS:
Firmly, but gently, flex the atlanto-occipital area to the limit of motion three or four times while simultaneously performing one of the following:

A. Patient touches the area of previous injury
B. Doctor pinches over the area of previous injury
C. Doctor uses origin-insertion manipulation to area of previous injury

DIAGNOSIS FOR THE REST OF THE BODY:
Test a strong muscle while gently jamming the mortis joint (i.e, push the talus headward) during one of the following:

A. Patient TLs area of previous trauma
B. Doctor pinches area of previous trauma

TREATMENT FOR THE REST OF THE BODY:
Perform a distal traction micromanipulation to the talus (in direction of opening mortis joint) while simultaneously performing one of the following:

A. Patient touches the area of previous trauma.
B. Doctor creates mild irritation by pinching area of previous trauma
C. Doctor uses origin-insertion manipulation to area of previous injury

SPECIALIZED USES OF IRT: IRT TO THE SPINE

Cervical spine and coccyx

TREATMENT is by atlanto-occipital flexion while patient digitally contacts the involved spinal segment.

Sacrum, sacroiliacs, and the rest of the spine

TREATMENT is made by either the patient digitally contacting (or if the patient cannot reach the area, by the doctor pinching the skin over the involved spinal segment) while the doctor gently tractions each talus in direction of opening the mortis joint.

History of Injury chart

Conditional Facilitation and Conditional Inhibition

The ability of a muscle to respond to the demands placed on it has a great deal to do with the activity of the motorneurons to that muscle which reside in the anterior horn of the spinal cord. Facilitation refers to increasing the ability of neurons to fire. Inhibition refers to decreasing the ability of neurons to fire.

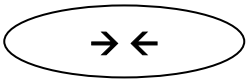
The terms "conditional facilitation" and "conditional inhibition" refer to changes in the motorneuron pools in the spinal cord under the conditions of the moment and hence, the relative ability of a muscle to respond to demands placed on it at that moment. These terms are used because conditions in the spinal cord are constantly changing. For example, note that when we walk, the flexors and the extensors of the limbs are alternately contracting (due to conditional facilitation) and relaxing (due to conditional inhibition) and that these patterns are constantly in flux.

In general, muscles which are conditionally inhibited do not perform well. Muscles which are conditionally facilitated do respond well. Muscles can also be conditionally over facilitated in which case they tend to be tight and have decreased ability to be stretched, which is called increased "tone" of the muscle.

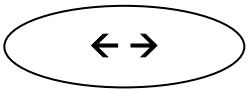
Muscle belly directional manipulation technique

Digital pressure to the belly of the muscle has been demonstrated clinically to alter conditionally facilitated or inhibited responses during gross motor assessment (manual muscle testing) in two particular manners:

1. Pressure in the belly of the muscle in a direction toward the ends of the muscle presumably stretches the muscle spindles in the belly creating a short-lived facilitated response of the muscle.
2. Pressure in the belly of the muscle in a direction toward the center of the muscle belly presumably reduces facilitation from the muscle spindles and results in a decrease of muscle spindle facilitation, or a net effect of a short-lived inhibited response of the muscle.



Causes a conditional inhibition (weakening response)



Causes a conditional facilitation (strengthening response)

Muscle belly directional manipulation may be used to reduce over facilitation of a muscle. This may be used in many different cases, from reducing the effects of a muscle cramp to altering muscle tone (and hence increasing range of motion) in neurological pathological situations such as in brain injured children or adults (e.g., following birth injury, stroke or other brain trauma.)

It is also useful in restoring normal activity to a conditionally inhibited muscle following trauma to a muscle belly.

Muscle tendon directional manipulation technique

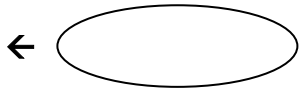
Digital pressure to the tendinous attachments of a muscle has also been demonstrated clinically to alter conditionally facilitated or inhibited responses during gross motor assessment. There are two effects which may be achieved:

1. Pressure on the tendon (at either the musculotendinous and/or tendoperiosteal insertions) toward the belly of the muscle creates a short-lived facilitated response in most cases of conditionally inhibited muscles. It may have a long-lasting facilitating effect in restoring a conditionally inhibited muscle following injury to a muscle's tendinous attachments, which is a common occurrence with trauma. This is particularly useful approach following muscle trauma. (See Origin-Insertion Manipulation Technique below.)
2. Pressure on the tendon in a direction away from the belly / towards the ends usually results in a short-lived net inhibition effect to gross motor assessment of the muscle.

Like muscle belly directional manipulation, muscle tendon directional technique may be used to reduce over facilitation of a muscle. This may be used in conjunction with muscle belly manipulation in many different cases, from cramps to neurological pathological situations such as described above.



Causes a conditional facilitation (strengthening response)



Causes a conditional inhibition (weakening response)

Origin-Insertion Manipulation Technique

In 1964, George Goodheart, D.C. found that conditionally inhibited muscles could usually become facilitated by hard, heavy pressure to the origin and insertion of the muscle. (It was ten years later, in 1974, that the directional muscle belly and muscle tendon manipulations were found to create the patterns of facilitation and inhibition discussed above.) Goodheart observed that this origin and insertion manipulation was most valuable and lasting when used following an injury to a muscle. The muscle trauma could be from either a unique injury or from repeated microtrauma and the response was the same.

Origin-Insertion Manipulation Technique Plus Injury Recall Technique

With the addition of injury recall technique, origin-insertion technique is a powerful tool in normalizing function following trauma. The musculotendinous and/or tendoperiosteal insertions are usually indurated and tender following trauma, and manipulation on these insertions, in a direction toward the belly of the muscle (muscle tendon directional manipulation technique) is performed in conjunction with IRT to the talus, or in the case of cervical muscles, the atlanto-occipital area.

THERAPY LOCALIZATION

Therapy localization (TL) is a method of identifying where in a patient's body a problem exists. It was discovered by George Goodheart, D.C. in 1974. TL involves the patient touching areas of his or her own body. When TL is positive, the patient touches a specific area of the body and a muscle strength changes. A weak muscle may become strong OR a strong muscle may become weak as long as the TL is maintained. TL can be used to identify subluxations, acupuncture points, other reflex points, areas of injury, and occasionally organ dysfunction and organ pathology. TL TELLS US WHERE A PROBLEM IS - IT DOES NOT TELL US WHAT A PROBLEM IS. Further diagnosis must be performed to identify WHAT the TLed area represents.

AUTOGENIC FACILITATION (AF)

MUSCLE SPINDLE CELL TECHNIQUE TO STRENGTHEN (I.E., STRETCHING THE MUSCLE SPINDLES BY PUSHING ON THE MUSCLE SPINDLES IN THE BELLY OF THE MUSCLE TOWARDS THE ENDS OF THE MUSCLE) *SHOULD* STRENGTHEN ANY WEAK MUSCLE. RICHARD BELLI, D.C. IDENTIFIED THAT THIS AUTOGENIC FACILITATION RESPONSE WAS FREQUENTLY ABSENT FOLLOWING MUSCLE SPINDLE STRETCHING.

- WHEN THERE IS A HISTORY OF TRAUMA OR INJURY:
    - IF AF DOES NOT STRENGTHEN THE WEAK MUSCLE - USE INJURY RECALL TECHNIQUE (IRT).
        - EXCEPTION: WHEN INJURY IS TO MUSCLE BEING TESTED
    - IF AF STRENGTHENS – NSB OR SET POINT TO INJURY

AUTOGENIC INHIBITION (AI)

MUSCLE SPINDLE CELL TECHNIQUE TO WEAKEN (I.E., SHORTENING THE MUSCLE SPINDLES BY PUSHING ON THE MUSCLE SPINDLES IN THE BELLY OF THE MUSCLE TOWARDS THE BELLY OF THE MUSCLE) *SHOULD* WEAKEN ANY STRONG MUSCLE (*FOR ONE TEST ONLY*.) IF AI DOES NOT CAUSE WEAKNESS, THIS MUSCLE IS BEING OVER-FACILITATED AND SHOULD *NOT* BE USED AS AN INDICATOR MUSCLE. IF *ALL* MUSCLES ARE IN THIS OVER-FACILITATED STATE, IT REPRESENTS A SYSTEMIC PATTERN ORIGINATING IN A SUPRASEGMENTAL PATHWAY SUCH AS THE SYMPATHETIC "FIGHT OR FLEE" REACTION.

- WHEN AI DOES NOT WEAKEN A SPECIFIC MUSCLE (OVER FACILITATION), DO NOT USE THIS MUSCLE AS AN INDICATOR MUSCLE

STOP YOUR PAIN NOW! TECHNIQUES

Professional Version

Walter H. Schmitt, DC, DIBAK, DABCN

FOR ALL *STOP YOUR PAIN NOW!* TECHNIQUES

First identify the nearest acupuncture meridian to area of the pain (or find the area on the PAIN LOCATOR CHART.) Treat by tapping the B&E point (acupuncture head point) that corresponds to that meridian. (If it is near a Yin meridian, tap the B&E point of its Yang counterpart.) Or tap the ACUPRESSURE TAPPING POINT which corresponds to the numbered area on the PAIN LOCATOR CHART.

IPR TECHNIQUE ("NSB TECHNIQUE")

1) To relieve pain immediately after an injury, tap the related B&E point (ACUPRESSURE TAPPING POINT) until the pain is reduced.
2) To relieve pain up to a week or so after an injury, tap the related B&E point (ACUPRESSURE TAPPING POINT) while intermittently applying gentle pressure or movement to slightly aggravate the pain. Slowly increasing intensity as pain tolerance allows.
3) In any case, tap until pain reduction is maximal. This may be a few seconds or up to a few minutes.

NOTE: Rubbing the Injured Area: In sprains and strains, after pain reduction is maximized, performing origin-insertion technique to the injury will speed healing.

TOUCH AND TAP TECHNIQUE ("SET POINT TECHNIQUE")

1) Patient touches the area of pain or previous injury.
2) Tap the related B&E point (ACUPRESSURE TAPPING POINT) on the same side of the body while the patient maintains contact with the area of pain.
3) Tap 100 times. You may tap more if doing so increases pain reduction further.

LQM (LOCATION, QUALITY, MEMORY) TECHNIQUE

1) Tap the associated B&E point (ACUPRESSURE TAPPING POINT) on the same side of the body 100 times while the patient thinks about each of the following:
   a) the location of the pain
   b) the quality or nature of the pain (what it feels like when it hurts.)
   c) the memory of the pain when it hurt its worst
   d) the memory of the pain when it first occurred and/or the circumstances surrounding the injury.

EMOTIONAL STRESS REDUCTION TECHNIQUE

1) Patient thinks about a stressful incident or emotionally stressful time.
2) Tap both St-1 points (point #2) for 100 (or more) times while the patient continues to think about the stress.

LQM (LOCATION, QUALITY, & MEMORY) TECHNIQUE

LOCATION OF THE PAIN
(SOMATOSENSORY AREA OF CEREBRAL CORTEX)

1. Have patient focus attention on a specific location in the body.
2. If strong muscle weakens: TL to acupuncture head points while patient continues to think about that part of body. One acupuncture head point will neutralize muscle weakness caused by focusing process.
3. Tap that head point 50 - 60 times while patient continues to focus attention on body part.
4. Recheck 1. and test strong muscle to ascertain correction.

QUALITY OR NATURE OF THE PAIN
(SOMATOSENSORY AREA OF CEREBRAL CORTEX)

1. Have patient focus attention on the quality of the pain.
2. If strong muscle weakens: TL to acupuncture head points while patient continues to think about the quality of the pain. One acupuncture head point will neutralize muscle weakness caused by focusing process.
3. Tap that head point 50 - 60 times while patient continues to focus attention on the quality of the pain.
4. Recheck 1. and test strong muscle to ascertain correction.

MEMORY OF THE PAIN
(TEMPORAL LOBE)

1. Have patient focus on:
    a. memory of pain when it was at its worst, or
    b. memory of incident when pain began.
2. If strong muscle weakens: TL to acupuncture head points while patient continues to think about than memory. One acupuncture head point will neutralize muscle weakness caused by the memory of the pain (or incident causing pain.)
3. Tap that head point 50 - 60 times while patient continues to think about memory of pain (or incident causing pain.)
4. Recheck 1.a. or 1.b. and test strong muscle to ascertain correction.

Chapman's Reflexes

Frank Chapman, D.O. was an osteopathic physician who, in the 1930s, observed that patients with problems in a particular organ (the stomach, for example) would all have tender, nodular areas on the body surface at the same place. He found that if he rubbed these tender areas that patients symptoms and signs of disease would improve. By trial and error, over a period of time, he was able to identify the location of areas on the body surface for all organs. Chapman called these reflex areas "neurolymphatic reflexes."

You may rub these Chapman's reflex areas by a firm, rotary manipulation of the reflex area. Rubbing Chapman's reflex areas can be painful, so rub them to tolerance, and continue for at least 30 seconds. Sometimes the tenderness will disappear as you continue to rub. Sometimes it will seem to become more tender. They may even be more tender the next day after rubbing them. (If this tenderness is a bother, simply place a cold wash cloth over the tender area and it will decease the sensitivity.) As symptoms decrease, so will the tenderness of Chapman's reflex areas decrease.

Chapman's Reflexes Segmental Locations

Many Chapman's reflex locations are in the intercostal spaces, more or less segmentally arranged on the front and the back of the body.

Chapman's Reflexes Result in a Net Parasympathic Effect

Walter Schmitt, D.C. has theorized that treating Chapman's reflexes results in a net parasympathetic effect to the related organ, which in the case of digestive organs, increases their level of function.

Bennett's Reflexes

Terrence Bennett, D.C. was a mid-twentieth century chiropractor who postulated the existence of "neurovascular reflexes" on the skull and other skin surfaces. These reflex areas were associated with the function of various viscera. Bennett's technique to activate these "neurovascular reflexes" was to hold a light digital contact over the area until a pulsation was felt in the doctor's fingertips.

Bennett's Reflexes are not as frequently found to be important as Chapman's reflexes or acupuncture meridian points. They will not be emphasized in class, except in the session relating to emotional stress in which case they are commonly found to have clinical significance.

NOTE: Locations for Chapman's Reflexes and Bennett's Reflexes can be found on the AK Reflexes Chart - handed out separately.

Wall Charts with all AK reflex areas are available for purchase from ICAK.

TONIC LABYRINTHINE REFLEXES

TONIC LABYRINTHINE REFLEXES (TLR) ARE INBORN REFLEXES WHICH ARE ACTIVE AT BIRTH. THEY MONITOR THE POSITION OF THE HEAD IN RELATION TO GRAVITY. THERE ARE 4 TLR BASIC PATTERNS:

1) FACE UP
2) FACE DOWN
3) RIGHT EAR DOWN
4) LEFT EAR DOWN.

NOTE: (STANDING AND SITTING RESPONSES ARE SIMILAR TO THE FACE UP POSITION.)

TLR RULE #1
EXTENSORS SHOULD *NEVER* BE WEAK SUPINE
FLEXORS SHOULD *NEVER* BE WEAK PRONE

TLR RULE #2
PATIENT SUPINE. FLEXOR WEAKNESS *SHOULD BE* NEGATED BY TURNING HEAD TO OPPOSITE SIDE.

IMPLICATIONS FOR MUSCLE TESTING POSITIONS

THE NORMALLY FUNCTIONING TLR WILL HAVE AN EFFECT ON MUSCLE TESTING OUTCOMES BASED ON TLR RULE #1. FORTUNATELY, MOST FLEXOR MUSCLE TESTS ARE PERFORMED IN THE SUPINE POSITION AND MOST EXTENSOR TESTS ARE PERFORMED IN THE PRONE POSITION. HOWEVER, A FEW EXTENSOR MUSCLES ARE TYPICALLY TESTED WITH THE PATIENT SUPINE SUCH AS THE LATISSIMUS DORSI, TERES MINOR, AND INFRASPINATUS. IF THESE MUSCLES ARE CONDITIONALLY INHIBITED, BUT TESTED IN THE SUPINE POSITION, PROPERLY OPERATING TLR CREATE ENOUGH FACILITATION TO MASK THEIR WEAKNESSES.

TLR RULE #2 IS THE BASIS FOR THE IMPORTANCE OF KEEPING THE HEAD (AS WELL AS THE BODY) IN A NEUTRAL POSITION WHEN PERFORMING MUSCLE TESTING.

BOTH TLR RULES #1 AND #2 DEMONSTRATE THE IMPORTANCE OF CONSISTENCY FROM ONE MANUAL MUSCLE TEST TO THE NEXT IN ORDER TO MAINTAIN ACCURACY.

VERTEBRAL CHALLENGE TECHNIQUE

In 1973 George Goodheart, D.C. observed that manually moving a subluxated vertebra through a range of motion would result in changes in muscle strength. No change in muscle strength takes place when manually moving a non-subluxated vertebra through its ranges of motion. The vertebral challenge involves a "rebound phenomenon" whereby the vertebra, when pushed in a certain direction (for example P to A) rebounds when released in the opposite direction (A to P.) This rebound effect is exaggerated in a subluxation so that challenging (pushing and releasing) a vertebra in the direction which it needs to be adjusted results in a rebound to an exaggerated subluxation position for a few seconds. During this time, any muscle will test weak. Likewise, when challenging a vertebra in the direction to increase the subluxation, the vertebra will rebound back to its normal, non-subluxated position for a few seconds and any muscle will test strong. After the adjustment, in a non-subluxated vertebra, challenging in any direction causes no muscle weakness to occur. The TL rule is ALWAYS ADJUST IN THE DIRECTION THAT CHALLENGING (pushing and releasing) CAUSES MUSCLE WEAKNESS.

VERTEBRAL RESPIRATORY ADJUSTING

A “respiratory adjustment” may be made in appropriate patients. The vertebral challenge is performed and the direction of correction is determined as above. This direction of challenge is repeated while the patient inhales, then again while the patient exhales. One phase of respiration will negate the positive challenge. Correction is by gentle, but firm pressure in the direction of challenge weakness during phase of respiration which negates the weakness. This is done 5-6 times and the vertebral challenge is rechecked to ascertain correction.

FLEXOR REFLEX AFFERENT (FRA) SUBLUXATION PATTERNS

Walter H. Schmitt, Jr., D.C., D.I.B.A.K., D.A.B.C.N.

We can use flexor withdrawal reflex patterns to determine subluxation hierarchy of the vertebrae and feet. To determine FRA subluxation hierarchy:

1. Pinch the skin over spinous process (or ankle and foot.)
2. Extensor muscles (*only*) will weaken when nociception is activated over next subluxation to adjust.

Flexor reflex afferents activate withdrawal reflexes:

1. Flexor withdrawal reflexes
2. Crossed extensor reflexes

Flexor reflex afferents come from these sensory endings:

1. Nociceptors
2. Touch receptors
3. Pressure receptors
4. Mechanoreceptors
    - A. Joints
    - B. Muscle spindles 2ry endings

PROSTAGLANDIN SYNTHESIS INHIBITORS (CYCLOOXYGENASE INHIBITORS)

SALICYLATES (ASPIRIN)
ACETAMINOPHEN / PARACETAMOL
NONSTEROIDAL ANTI-INFLAMMATORY DRUGS (NSAIDs)

NEGATIVE SIDE EFFECTS OF NSAIDs

GI HEMORRHAGE
"LEAKY GUT"
DESTROY VITAMIN C
ANTAGONIZE FOLIC ACID
ENHANCE LEUKOTRIENES
DECREASE SULFUR LEVELS: IMPAIRS PHASE 2 LIVER DETOXIFICATION
& IMPAIRS PROTEOGLYCAN SYNTHESIS (CARTILAGE REPAIR)

NUTRITIONAL ALTERNATIVES TO NSAIDs

1. ESSENTIAL FATTY ACIDS AND COFACTORS
    A. PG1 PRECURSORS
        1. BLACK CURRANT SEED OIL
        2. BORAGE OIL
        3. EVENING PRIMROSE OIL
    B. PG3 PRECURSORS
        1. FLAXSEED OIL (LINSEED OIL)
        2. FISH OILS (EPA - EICOSAPENTAENOIC ACID)
    C. COFACTORS
        1. B-6 (P-5-P)
        2. MAGNESIUM
        3. ZINC
        4. NIACIN
    D. HERBAL ALTERNATIVES TO NSAIDs
        1. BOSWELIA 2. TUMERIC
2. DIETARY CHANGES
    A. AVOID PARTIALLY HYDROGENATED FATS
    B. DECREASE SATURATED FAT INTAKE

TO TREAT LEUKOTRIENE PROBLEMS

NOTE: LEUKOTRIENES ARE 100 - 1000 TIMES AS INFLAMMATORY AS HISTAMINE

1. EFA PG1 & PG3 PRECURSORS (SEE ABOVE)
2. COFACTORS (SEE ABOVE)
3. PROSTACYCLIN STIMULATION
    A. GINGER
    B. GARLIC
    C. ONIONS
    D. MAGNESIUM
4. LT INHIBITION
    A. VITAMIN E (HIGH DOSE)
    B. EPA
    C. ZINC
    D. QUERCITIN
    E. GLUTATHIONE
    F. SELENIUM
    G. ALOE

EFA AND ASPIRIN / NSAIDs ORAL CHALLENGE TEST

IF ORAL CHALLENGE WITH ASPIRIN / NSAIDs:

1. STRENGTHENS - PG PROBLEM: CHALLENGE WITH LARD OR TRANS FATS
2. WEAKENS - LEUKOTRIENE PROBLEM: CHALLENGE WITH LARD

AK 100 HOUR COURSE - SESSION 1 – READING LIST

This reading list will help you prepare for and review this session. Each major topic is listed. Some citations are listed in more than one place.
* = These topics will be only briefly covered in class. It is *strongly recommended* that you thoroughly read the reading list citations for more in depth coverage of the topic, especially if you plan on taking the ICAK 100 hour certification test on completion of the 100 hour course.
# = These topics will be mentioned only during class, if discussed at all. They serve as the basis for post-100 hour course seminar topics. Reading the citation is *optional*.

- S2 = Walther, David, *Applied Kinesiology Synopsis – 2nd Edition*.
- CSM = Maffetone, Philip, *Complementary Sports Medicine*.
- CNOCNP = Schmitt, Walter, *Compiled Notes on Clinical Nutritional Products*.

Topics Discussed In Session 1:

Overview of concepts of functional illness • CSM – pp. 1-8 • S2 – pp. 2-14

*Five factors of the intervertebral foramen • S2 – 13

Overview of applied kinesiology (AK) concepts • S2 – 2-14 • CSM – 191-205
• Schmitt, Walter H. "Chiropractic Terminology" section on *IRT / 3 Types of Muscle Testing / Chiropractic Terminology* audio tape • ICAK blue-colored "What is AK" Pamphlet

Muscle - organ (viscerosomatic and somatovisceral) patterns • S2 – 14 • CSM – 192-194

*Neurophysiological Basis of AK • S2 – 4-10 • ICAK-USA, "Quotable Research"
• Schmitt, W.H., & Yanuck, S.F. Expanding the neurological examination using functional neurological assessment part II: neurologic basis of applied kinesiology. Intern J Neuroscience, 1999, 97, 77-108. (Also in *AK Review* 8:1, Spring, 1999)
• Motyka, T.M. &, Yanuck, S.F. Expanding the neurological examination using functional neurological assessment part I: methodological considerations. Intern J Neuroscience, 1999, 97, 61-76. (Also in *AK Review* 8:1, Spring, 1999)

International College of Applied Kinesiology – Value of membership • S2 – 4-10

Normal muscle facilitation and inhibition during gait • CSM – 36-38, 102-104 • S2 – 170-171

Postural analysis • S2 – 30-37 • CSM – 36-38, 85-95

The science and art of muscle testing • S2 – 304-308 • CSM – 96-101

#Type 2 (G-2) and Type 3 (G-2 submaximum) Testing • S2 – 306 • CSM – 101-102

Effect of tonic labyrinthine reflexes (TLR) on muscle testing positions • S2 – 307 • CSM – 235

Therapy Localization • S2 – 37-39 • CSM – 196-197

Chapman's Neurolymphatic Reflexes • S2 – 46-47 • CSM – 106-107

*Bennett's Neurovascular Reflexes • S2 – 48-51

Session 1 Reading List – page 2

*Acupuncture Meridian Points – Introduction • S2 – 235-238 • CSM – 105-106

Latissimus dorsi • S2 – 344 • CSM – 184-185

Pectoralis major, clavicular • S2 – 346 • CSM – 112-113

Pectoralis major, sternal • S2 – 347 • CSM - 114-115

Psoas • S2 – 325 • CSM – 134-135

Tensor Fascia Lata • S2 – 319 • CSM – 138-139

Piriformis (prone) for vertebral challenge • S2 – 309 • CSM – 186-187

Neuromuscular receptors: Golgi tendon organ technique • S2 – 64 • CSM – 225-227

Neuromuscular receptors: Muscle spindle cell technique • S2 – 62-63 • CSM – 227-228

Origin-Insertion Technique and GTO to facilitate and inhibit muscles • S2 – 2, 45-46, 64
• CSM 227-228

*Strain – Counterstrain technique • S2 - 201-207

*Reactive muscles • S2 – 65-66

Injury recall technique • S2 – 184-187 • Schmitt, Walter H. "IRT" section on *IRT / 3 Types of Muscle Testing / Chiropractic Terminology* audio tape

Pain relief techniques using acupuncture head points • Schmitt, Walter H., *Stop Your Pain Now!* book and audio tape • S2 – 277-278, 593 • CSM - 262-266, 269-270

Vertebral challenge technique • S2 – 71 • CSM - 198

Respiratory adjustments • S2 – 80 • CSM – 250-251

Essential fatty acids, Aspirin, NSAIDs, etc. • S2 – 554-557 • CSM – 45-48, 282-286, 301-303
• Schmitt, Walter H. *Get These Out Of Your Family's Kitchen* pamphlet • CNOCNP – 138-181

PATIENT EDUCATION MATERIALS
Systems DC Pamphlets
Applied Kinesiology in the Chiropractic Exam
Total Person Concept of Health
Structural Balance – The Foundation of Health

Schmitt Pamphlet
Get These Out Of Your Family's Kitchen

AK 100 HOUR COURSE - SESSION 2 – READING LIST

This reading list will help you prepare for and review this session. Each major topic is listed. Some citations are listed in more than one place.
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Abdominals • S2 – 316-318 • CSM – 130-133

Gluteus maximus • S2 – 321 • CSM – 174-175

Gluteus medius and minimus • S2 – 320 • CSM – 156-159

Hamstrings • S2 – 310-311 • CSM – 176-177

Rectus femoris • S2 – 312-313 • CSM – 142-143

*Quadratus lumborum • S2 - 372

*Sacrospinalis • S2 – 370-371

Neck extensors • S2 – 368-369 • CSM – 188-189

*Vitamin E • CNOCNP – 32-33, 34, 64-67, 166-167, 188

Temporosphenoidal line analysis (T.S. Line) – 5 locations only • S2 – 15-16

Relieving Fatigue (Part 1) – CBC with differential nutritional values • CNOCNP - 86-90

*Aerobic and anaerobic testing – relationship to iron and essential fatty acids • S2 – 188-189

*Retrograde lymphatic – relationship to iron, pectoralis minor • 539-541

Review vertebral challenge • S2 – 71 • CSM – 198

Coupled spinal mechanics & Coupled spinal adjusting, Uncoupled spinal mechanics patterns
• Schmitt, Audio-Video-Notes package "Spinal Adjusting"

*Lovett brother relationships • S2 – 70-71

*Spinal fixations • S2 – 86-93

*Occipital fixation – bilateral psoas • S2 – 74, 90-91

Hip and low back problems

IVD Challenge • S2 – 96-107

Iliolumbar ligament • S2 – 130-132

*Imbrication and deimbrication technique • S2 – 81-83

*Meridian associated points along the spine • S2 - 240

Pelvic categories and fixations • S2 – 109

Category 1 • S2 – 110-112 • CSM – 243-246

Category 2 • S2 - 112-115 • CSM – 246-248

*Category 3 (brief) • S2 - 115-116

Iliac fixation • S2 – 93

Sacral fixation • S2 – 91-92

Sagittal Suture separation for abdominal muscle weakness • S2 – 100, 318 • CSM – 242-243

Fascial Flush / Spray and Stretch Techniques • S2 – 192-198 • CSM – 231-232

Nutritional relationship to vitamin B-12 • S2 – 193

*Triggerpoints – challenge and respiratory correction • S2 – 193-198 • CSM – 231-232

PATIENT EDUCATION MATERIALS

Systems DC Pamphlets

The Spine – An Integrated Structure
Your Back – How to Care for It
Intervertebral Disc
Correct Lifting

READING, REFERENCE, and RESOURCE LIST - 100 HOUR AK COURSE

Walter H. Schmitt, DC, DIBAK, DABCN

This reading and reference list will help you prepare for and review each session in this 100 hour course. Sources for each reference text are listed.

RECOMMENDED REFERENCE TEXTS:
NOTE: The Walther text and the Maffetone text are general reference books for the entire course. The others are for more specific sections of the course. (If you can only get one book, get the Walther text.)

Walther, David, *Applied Kinesiology Synopsis – 2nd Edition*. 627 pages. ($110)
Systems D.C.
275 West Abriendo
Pueblo, CO 81004-1870
(800) 221-6262 Fax 719-543-2357
To review Table of Contents: http://systemsdc.com/ak_s2.htm

Maffetone, Philip, *Complementary Sports Medicine*. 430 pages. ($49.50 if ordered from below)
The MAF Group - (877) 264-2200. May be purchased on-line at www.philsbar.com

Schmitt, Walter H., *Stop Your Pain Now!*. 48 page book and 80 minute audio tape. ($26.45)
Schmitt, Walter H., *Compiled Notes on Clinical Nutritional Products*. 200 pages. ($39.50)
Schmitt, Walter H., *Common Glandular Dysfunctions in the General Practice*. 171 pages. ($39.50)
Schmitt, Walter H., "Get These Out Of your Family's Kitchen" pamphlets ($15 for pack of 50)
Applied Kinesiology Study Program
1926 Overland Drive
Chapel Hill, NC 27514
(919) 419-9099 Fax (919) 419-9049
(NOTE: Dr. Schmitt's materials will be also available for purchase at seminar sessions).

OTHER RESOURCES:

Web Sites:
ICAK-USA: www.icakusa.com
ICAK (International): www.icak.com
Dr. Walter Schmitt: www.theuplink.com
Systems DC (Dr. David Walter): http://systemsdc.com
The MAF Group (Dr. Philip Maffetone): www.philsbar.com

Applied Kinesiology, Reflexes & Meridian Procedure Wall Chart ($45)
ICAK-USA Central Office
6405 Metcalf Ave., Ste. 503
Shawnee Mission, KS 66202
913-384-5336 Fax 913-384-5112
e-mail: icakusa@usa.net

AK Patient Education Pamphlets, Other reference books, forms
Systems D.C.
275 West Abriendo
Pueblo, CO 81004-1870
(800) 221-6262 Fax 719-543-2357
Web site: http://systemsdc.com