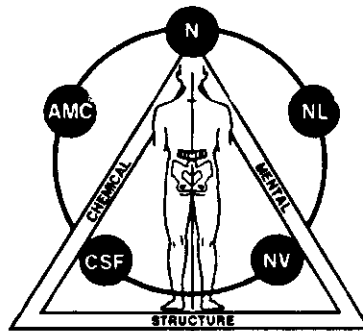


Overview and Update of the Bennett Neurovascular Reflexes



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HISTORICAL REVIEW BENNETT NEUROVASCULAR REFLEX

"In the early 1930's, Bennett (1) designed a reflex technique to influence the vasomotor system. The reflexes that he detailed are primarily on the anterior surface of the trunk and on the head. In Bennett's published lectures (1) there are numerous references to the nervous system, but there is no specific description of the possible mechanism involved in the reflex activity. Bennett considered himself a clinician; he stated (2) "We will not give you an academic class in neurology, anatomy, or physiology We will use physiology and anatomy insofar as it is wise for practical purposes. This is a practical course, not an academic one." He had little time for theorizing academicians or structurally oriented pedagogues. He was convinced function controls structure, and answers had to be found by application.

Only a portion of Bennett's work has been correlated into applied kinesiology. This was done by Goodheart, (3) and is a correlation of the Bennett reflexes (primarily those of the head) with their influence on strengthening muscles which tested weak on manual muscle testing and their apparent effect on body function. Bennett's reflexes have become known as "neurovascular reflexes" in applied kinesiology, referring to the apparent nerve association with the vasomotor system. As with the correlation of neurolymphatic reflexes (Chapman's reflexes), many of Bennett's reflexes correlate with the muscle-organ/gland association of applied kinesiology.

It is believed that the neurovascular reflexes have their neurologic association with the areas they seem to influence by way of embryological unfolding. The skin and nervous system are both derived from ectodermal tissue. It is thought that early developmental association connects the reflex area with the nerves or vasomotor center which controls vessel activity in the respective area. Bennett considered that the unit of physiology is the "vasomotor plexus" at the junction of the artery and the arteriole. He commented on the arteriole, capillary, tissue space, cell, lymph capillary, and the two main branches of the autonomic nervous system, the parasympathetic twig and sympathetic twig. He considered this a major area of influence for his reflex treatment.

Zweifach (7) presents an interesting review of the microcirculation of blood. Although the muscular coat of the larger blood vessels does not continue into the capillary bed, there are constant changes. "At one moment blood flows through one part of the network; a few minutes later that part is shut off and blood flows through another part. In some capillaries the blood even reverses.

Throughout this ebb and flow, however, blood passes steadily through certain thoroughfares of the capillary bed." Microsurgery has established that the blood is continuously under muscular control. The muscular sheath of the endothelium becomes thinner and thinner until in the smallest arteriole, it is only one cell thick. Zweifach goes on to state "...at the point where each of the branches leaves a thoroughfare channel, there is a prominent muscle structure; the muscle cells form a ring around the entrance to the capillary. It is this ring, or pre-capillary sphincter, which acts as a floodgate to control the flow of blood into the capillary network from the thoroughfare channel. This area, apparently, is the physiologic unit about which Bennett spoke.

If at all, the muscle cells in the larger vessels of the capillary bed are only sparsely under the

influence of the nervous system. Some say that most of the control for contraction and relaxation of these muscle cells is under the effect of corticosteroids and the amines, such -as epinephrine. Zweifach believes the mechanism is more complicated; he postulates that cell metabolism produces substances that influence the pre-capillary sphincter to increase blood flow. As the increased blood flow carries off the substances, the flow returns to its original state because there is no longer an influence from the metabolism substance. The oxygen theory has been previously discussed. Obviously, much research is necessary before the exact mechanisms of action can be delineated. Bennett's approach appears to influence the mechanism, giving clinical results testifying to its effectiveness.

The neurovascular reflex is accurately located by positive therapy localization. Contact for treatment of the neurovascular reflex is made with a light touch of the examiner's fingertips, and the area tissue is slightly tugged to create a traction; the contact is held while feeling for a pulsation. The pulsation will be in the range of 70-74 beats per minute, varying only slightly. Bennett (1) states, "The metabolic end of the vasomotor nervous system rarely exceeds 74 beats per minute, regardless of the pulse rate or the heartbeat. Rarely does it fall below 70, regardless of the pulse rate." It is possible that this pulsation is related to the tonic nerve impulse, which arises from the vasomotor center.

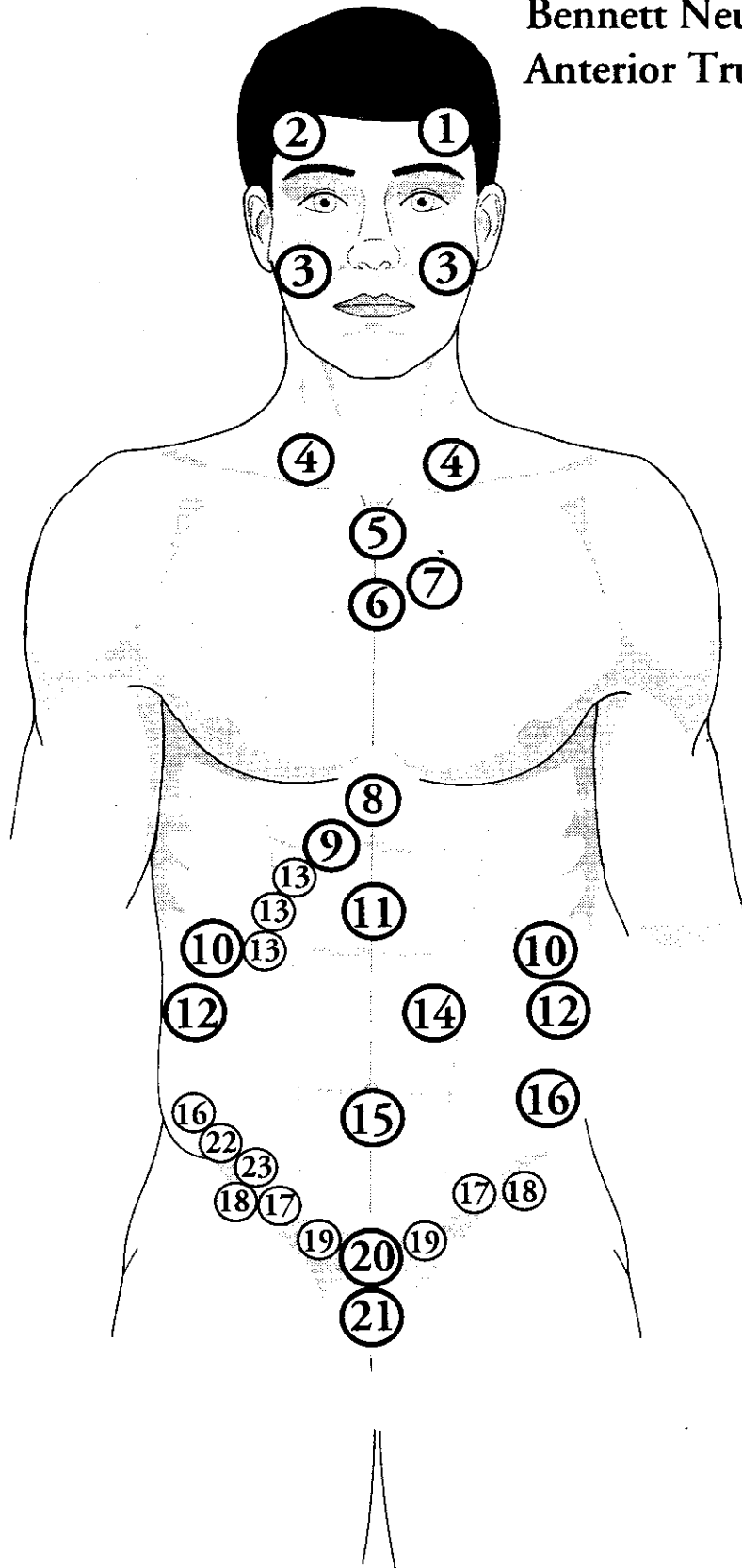
Generally, it is not difficult to develop a strong pulsation when treating a neurovascular reflex. However, in some cases it is necessary to attempt the tissue traction in many directions before the pulsation is felt. When a pulsation is felt, the physician should vary the direction of traction slightly to either side to find the maximum amount of pulsation. It seems that the pulsation is much greater in conditions which react dramatically to the neurovascular reflex treatment."

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5. H. Hensel, J. Ruef, and K. Golenhofer, "Human Muscle in Skin Blood Flow: Effect of Vasoactive Substances," *Geology* 6:190-207. (June 1955).
6. William A. Nelson, "Introduction to Dynamics of Correction," ed. Ralph J. Martin (Sierra Madre, CA: privately published, 1977).
7. Benjamin W. Zweifach. "The Microcirculation of the Blood," *Scientific American*, Vol. 200, No. 1 (January 1959).

Excerpted in part from my good friend and colleague, David Walther, D.C. "Applied Kinesiology Volume I".

Bennett Neurovascular Anterior Trunk Reflexes



1. Posterior Pituitary
2. Anterior Pituitary
3. Parotid Gland
4. Thyroid Gland
5. Bronchial Cough
6. Aortic Sinus
7. Heart Tone
8. Cardiac Sphincter
9. Pancreas
10. Kidney
11. McKenzie Reflex
12. Suprarenal
13. Gallbladder
14. Duodenum
(2, 3, 4)
15. Pylorus
16. Int. Rectal
Sphincter
17. Femoral
Lymphatics
18. Poupart's
Ligament
19. Ovaries (testes)
20. Bladder
21. Ileocecal
23. Appendix

ACTUAL QUOTE FROM TERRENCE BENNETT, D.C.

General Discussion

“Before going into the fine points of our techniques let us consider a number of factors which are pertinent to our subject matter. This discussion will lay a basis for the subject matter we wish to discuss later. The circulatory system is essentially an irrigation system. In its earliest evolutionary stages it consists of a series of vessels, the blood vessels, all of which contain a corpuscle-laden fluid, called blood. **THE BLOOD IS KEPT IN CIRCULATION IN THE EARLY STAGES BY THE RHYTHMIC CONTRACTION OF THE VESSEL WALLS.** but after a short time parts of the vessels are developed into a muscular organ called the heart. The above is taken from one of the current anatomies (caps are mine).

The anatomists comment on the pulsations of the blood vessels before a heart is formed. All anatomists, such as Cunningham, Grey, Potter and others, describe the same physiological phenomena. No satisfactory explanation has been given by physiologists as to what is responsible for pulsations of the blood vessels and the heart before the heart becomes a functioning organ (at about eighteen weeks in the human embryo).

The embryonic tissue from the first cell division must have oxygen, and up to a certain point depends upon structures other than its own for its existence, i.e., requiring warmth and energy from its host. Subsequently, it must depend upon itself to distribute all of the factors of metabolism from the host to its own cells. In order to accomplish this there must be created some means of supplying oxygen and other nutrient material to these rapidly dividing cells and a method of eliminating the by-products of their metabolism. Since a great deal of this activity occurs before there is any segmentation of the body and before there is a recognizable nervous system, then it could not be segmentally related. The vasomotor nervous system is the only part of the nervous system which is not arranged segmentally, with the possible exception of the cranial nerves.

The pulsations of the heart and arteries are well known; physiologically the pulsations may be within the range of sixty to eighty beats per minute, but, under stress they may increase to the point where it is impossible to count them, or they may decrease to the point where it is impossible to detect them.

Noting these two extremes between the heart and the arteries and the more or less constant rate of the arterioles would seem to give us cause for reflection. The cardio-vascular system runs the full range of extremes, while the arteriole pulse is more or less constant under all conditions. Our reflections should cause us to consider this radical difference. Obviously, we are dealing with two different phenomena, the cardio-vascular system and the arteriole-capillary system. It would seem that inasmuch as the vaso-motor system was concerned in the beginning with cellular metabolism, it should continue that function throughout life without change. It would seem that this is true clinically.

Embryology shows us that the blood vessels are pulsating before a heart is formed. The arterioles and capillaries are functioning first and later the arteries. This gives us added proof of the separate control of peristalsis in the cardio-vascular system and the arterioles. When the heart becomes a func-

tioning organ at about eighteen weeks, a division occurs. The heart now starts a large mass of fluid on its way to its ultimate destination, the arterioles and the capillaries.

We have no evidence to show that the fetal heart pulsations are any different in rate than the arterioles; however, at the moment of birth, when the infant takes its first breath a change takes place. The heart takes on its full function and a division occurs between the cardiovascular system and the arterioles and the capillaries. The older part, that which has governed cellular metabolism from the beginning, does not change but is now augmented by the regular peristalsis of the heart and arteries, which is the motor power behind the fluid mass to deliver it to the point of utilization- -the arteriole and the capillary.

This division in the functional relationship between the vasomotors of the cardio-vascular system and the vasomotors of the arteriole system can be demonstrated at will clinically. The rate and tension of the cardio-vascular system may be altered in many ways. The only manner known which will alter the tension of the arterioles is by use of the stretch reflex mechanism. The stretch reflex is accomplished by mildly stretching one of the skeletal muscles until the operator feels the arteriole pulse in the desired skin area. A great deal of personal instruction is necessary before one may be skillful enough to use this method effectively.

After convincing ourselves that the fine pulse we have been feeling was arteriole in nature, the next step was to find out how best to put this new mechanism to some practical use. We had used zone therapy, Aquarian Age, spinal adjustments, electrotherapy and many other techniques in our practice, but none of them could be depended upon in specific instances. Now, we believed, we had reasons for most everything and the only thing left was to find some means of application of this principle. If every internal organ had direct or reflex connections with the surface of the body, where were they? This question had to be answered before we could advance very far. It then became necessary to work in the clinical and x-ray laboratories to determine some of the things we wished to know. We were given the free use of the laboratories of the Morton hospital and clinical laboratory of Dr. George Stover to be used in any manner, we saw fit.

The first organ under investigation was the gall-bladder, and -one day much was our excitement when we settled upon a skin area directly opposite the ninth, tenth and eleventh ribs on the right side of the abdomen. The patient was under the fluoroscope and the dye was in the gall bladder. A reflex brought to this skin area set up peristalsis in the gall bladder and it seemed to empty itself. Further proof of the emptying came within a few minutes. The fluoroscope was turned off, the light was turned on and the patient needed a bucket in a hurry. We never found the bucket in time. The patient was drenched with perspiration; great beads popped out all over her, bile and stomach contents were all over the place. Thus was the first experiment on an organized scale begun. In high glee and excitement at the results, we began trying to empty gall bladders and in some instances with the same horrible results as noted in the laboratory. We began to wonder whether the cure was not worse than the disease!

Next in the march of events was the skin area which would cause the pyloric end of the stomach to become activated and empty itself in a normal manner. A great deal of investigation was done before we could accomplish this end. A patient was placed under the fluoroscope and a reflex was brought to various skin areas in the region of the umbilicus. If peristalsis was noted, a piece of adhesive tape was

placed upon the exact spot, then a chart was marked in the same manner. There was a rather large area from which peristalsis could be evoked on some of these patients and not on others. This process was continued until gradually we found the skin area which would produce this peristaltic action on everybody everytime (see treating chart).

Using the stretch reflex and the pulse as a guide had given us the basis for further investigation in the function of other structures. Next under investigation was the duodenum. If we could find the skin area through which we might affect the duodenum (and find the area through which we might prevent reverse peristalsis, so that the contents of the stomach would travel into the duodenum in the normal direction), could we not first relax the pyloric end of the stomach and the duodenum so as to prepare them for the presence of bile, then empty the gall-bladder, and thus achieve better end effects? After months of trying to find these skin areas, at last we were successful in locating them. We then tried this sequence of events: Pylorus, duodenum, pancreas and gall bladder. Using this sequence, **NOT ONE PATIENT HAS BEEN ILL AS A RESULT OF: TREATMENT** when the above sequence has been followed.

It was brought more and more to our attention that the pyloric structures could not be spastic of themselves. Something that was not well understood at the time was causing the many instances of partial or complete spasm of the pyloric musculature. Nothing we read helped us in this respect. No mention of the cause of such a situation exists in physiology or pathology. We sought for the reason in the glandular system with no result.

Physiology gave us only the function of each organ. It did not show the functional relationship with related organs or glands. It seemed to us to be most important that we find this relationship as soon as possible because. It might be the clue to the reasons for the many instances of spastic pylorus.

Some day, someone will write a new physiology similar to the plan used in functional anatomy. This physiology should be of a practical nature, showing not only the viscus under discussion but would include all of the viscera associated with it functionally. That is, in functional groups or units. No organ or gland functions alone, they function in-groups or units according to the total function which must be performed. Therefore we choose to call these groups "units of function," and from this description the chain reaction in physiology was visualized.

We had treated a number of infants suffering from partially spastic pylorus with spinal adjustments, diet and physiotherapy, with but slight effect. Our work has been confined to treatment of the pylorus. One day a lady brought her infant into the office with a history of colic and a diagnosis of a "closed stomach;" she had refused surgery. The baby was dehydrated and, as usual with these babies, he was trying to eat his own fingers if he could get them into his mouth. He was irritable and crying. Each time he cried it was noted what appeared to be a rather large lump in the right upper quadrant of the abdomen. Thinking that this might be the reason for his distress, a reflex was brought into the region of the lump. After three or four minutes this lump disappeared and the baby became quiet. He was given one ounce of his regular feeding, a stethoscope) was placed on his abdomen and it seemed that the liquid was passing immediately through the stomach. And such was the case. We later, learned that the "lump" was the head of the pancreas. **The spasm of the pylorus was released with the normalization of the head of the pancreas.** The treatment was continued on this little fellow and to the great delight of both his mother and myself, within ten days he was a healthy, happy baby. This treatment has been

given many times since with the same happy results in most instances. And now a rule: **A prolonged irritation at the head of the pancreas is capable of producing spasm of the musculature of the pylorus.** We shall have much more to say about this reflex phenomenon which manifests itself at this point in the digestive system in relation to sinusitis, gastric and duodenal ulcers, gall-bladder disease, liver disorders and general digestive disturbances.

This has been a rather long historical background but it is necessary in order to show clinically, step by step, the conclusions reached in the later pages. The case of the baby cited above taught me the following clinical fact: the pancreas, pylorus, second segment of the duodenum, liver and gall bladder form a functional unit. And anything that disturbs one automatically disturbs all others within this unit to a certain degree.

Witness the state of some patients after removal of the gall-bladder who have just as much distress and symptoms of the same character as before the removal of the gall-bladder. Certainly the gall bladder could not have been the cause of the symptom complex which was noted before and after its removal! If this is true, **then what did cause the symptoms?** The symptoms were set up in the other organs within the unit of function of which the gall bladder and the pancreas are a part. When the gall bladder is disturbed functionally, i.e., biliousness, inflammation, or any other irritation, it refers its distress to the head of the pancreas. Irritation at the head of the pancreas is responsible for all of the digestive disturbances we see in this type of case. The emotions are capable of setting up the same chain of events by their effect upon the head of the pancreas in some manner not well understood. Therefore, the many digestive diseases whose origin lies within this unit of digestion have long been known as emotional or tension diseases (psychosomatic).

It was a long time before we began to realize that the major factor in the production of irritation at the head of the pancreas was **tension or emotional stress**, With a better understanding of the effects of tension and emotional impact we began to see why gall-bladder disease, gastric and duodenal ulcers, pancreatitis, gastritis, duodenitis and many other conditions referable to this area came about. The pancreas, it seemed, was the first organ affected by tension or strong emotions, and always at its head. We later noticed that prolonged tension or prolonged mild emotional stress would produce this same effect upon the head of the pancreas; therefore a rule: **A mild stimulus constantly applied can kill you. and also, there is no pain in the absence of tension.**

Now, we begin to see that the patient is not a low back pain, a gallbladder or an indigestion type, but is a complete body and not just a part. An abnormal stimulus sets up a chain reaction which we know as disturbed physiology, and each organ or structure that is affected by this chain reaction sets up its own reactions to the body wall and to all other structures related to it functionally.

The idea was not entirely new to us, but the clinical facts were there to prove the idea. As one problem was solved many more appeared as a result of the solution and each of the new problems demanded attention. The chain reaction view helped greatly in our thinking and has led us to the solution of many of our problems.

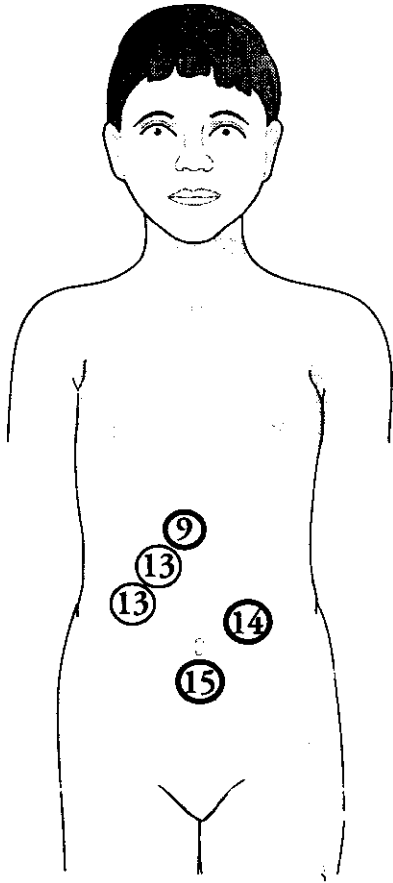
We were confronted more and more with the necessity of some method of moving fluids at will, not only that of the blood, but of lymph and spinal fluid. The movement of fluids presented a problem of extreme importance to us. The fluids must move out from the blood into all of the tissues, and must move back toward the bloodstream to be renewed or eliminated, or else we would have the principle of a mild stimulus constantly applied in the tissue spaces which could defeat our efforts to make the patient well. It was not enough to see that circulation of blood could be influenced by various therapies but we were also interested in lymph circulation and circulation of spinal fluid. How could we influence these branches of circulation so as to benefit our patient?

While discussing this subject with Dr. H. L. Lundberg on afternoon, we came to the conclusion that when, and if, we found a way to influence lymphatic circulation we would have the world by the tail on a downhill pull. In the following pages we shall describe the manner in which the circulation of lymph may be affected. Needless to say, mastery of the flow of lymph did not accomplish all of the things we had expected of it. Nevertheless, it was another milestone in our march toward our goal. In order to influence lymph circulation it was first necessary to know something of the lymph and its circulation. This we proceeded to learn step by step."

REFERENCE

Terrence J. Bennett. "Neurological Reflex Technique," comp. by Sylvia Y. Weigandt from Bennett class given in Des Moines, IA (Clinton, IA: privately published, 1956) pp-5

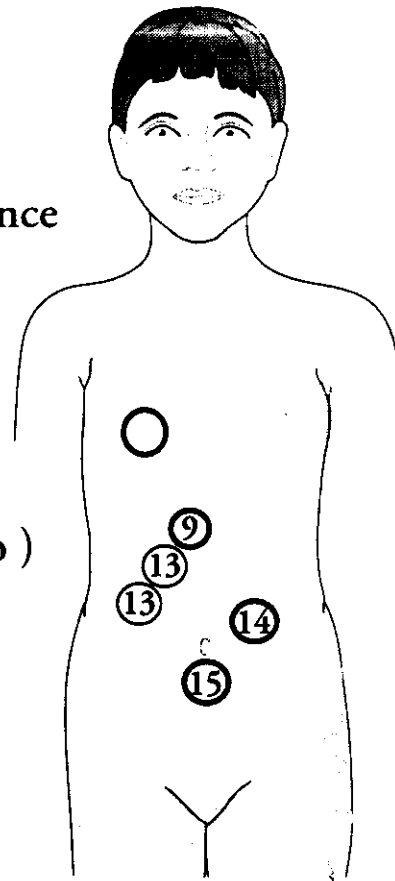
Pediatric Treatment Sequence



1. Pancreas # 9
2. Pylorus # 15
3. Duodenum (2, 3, 4) # 14
4. Gall Bladder # 13

Alternate Pediatric Treatment Sequence

1. Pylorus # 15
2. Duodenum (2, 3, 4) # 14
3. Pancreas # 9
4. Liver (Mid clavicular line 5th rib)
5. Gall Bladder # 13



GENERAL DISCUSSION AND UPDATE OF BENNETT NEUROVASCULAR REFLEX AREAS SKULL AND ANTERIOR TRUNK

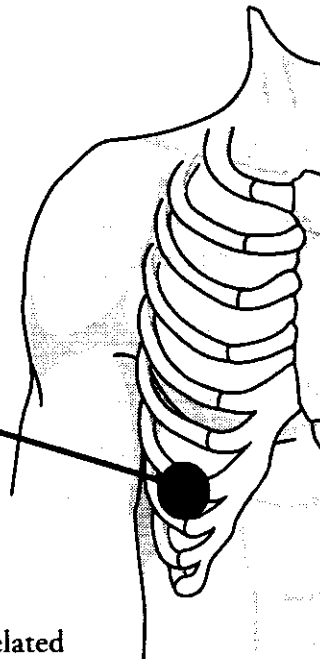
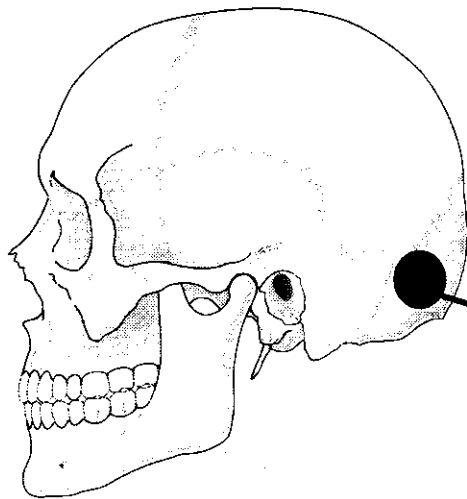
Following a historical review of the Bennett reflexes and following the information and actual quotes from Terrence Bennett, this new material is presented.

There appears to be four diagnostic neurovascular frames of reference. The first, the time honored cranial neurovascular areas (2), with which we are all familiar, since early AK (1968) and later (1975) research manuals. Also referenced are the audiotapes discussing the neurovascular reflexes (8-2-70, 17-1-140, 21-1-365). This early NV approach frequently involved a two point neurovascular cranial contact for cranial fault correction activity (1968 Research Manual pp. 7-8).

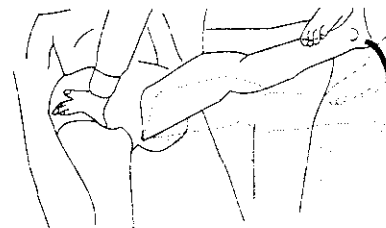
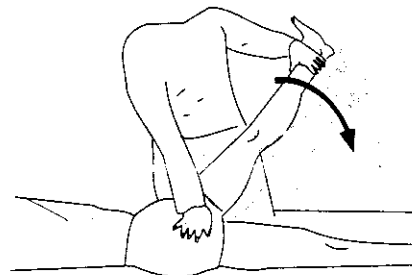
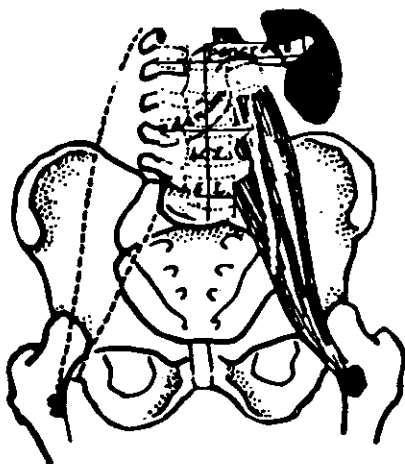
The second frame of reference is similar, but is a non-cranial neurovascular area, and involves the original anterior portion of the trunk (2). Both the original cranial areas and the anterior trunk areas could be found by careful therapy localization. The anterior trunk areas showed a much lower incidence of occurrence than for example, the neurolymphatic areas, or as in the Seifort cutaneous areas, as well as the Kellgren areas outlined in the 1994-95 AK Research Manual. These areas have also stood the test of time. These areas required the Reticular Activating System technique outlined in the 1994-95 AK Manual involving the R.A.S. and REM sleep cycle patterns as in NEHT - "small intestine asleep pattern".

The third area of involvement for the Bennett neurovascular areas on the anterior of the trunk demands a two point system of therapy localization. Based on TS line evaluation, patient complaint areas of activity, and the practitioners diagnostic value judgments the appropriate neurovascular area on the skull is therapy localized - if positive, proceed as usual for an NV area. The anterior trunk area is then therapy localized and if positive - treat in the usual fashion as a tugging touch on the neurovascular area. Both of the above areas have an occurrence rate that is variable depending on the patient's history and complaint, but usually is quite low.

Considering the above-cited information proceed now to the "two point" therapy localization technique. For example: kidney NV point on lateral occiput is negative to TL, the anterior trunk area for kidney (#10) is also negative to TL. Now two point therapy localize the kidney psoas NV area on the lateral occiput, and also therapy localize at the same time kidney area #10 from chart on ipsilateral side as lateral occiput area. If psoas muscle on involved side now weakens dramatically treat by tugging the patient's NV area on the head (originally negative to TL, but now also use the tugging touch contact for treatment of kidney area #10. Continue to hold both areas and wait for pulsation at tugging touch points (20-30 seconds). Continue tugging touch with further pulsation for another 10-20 seconds and then revalue the double or two-point therapy localization for confirmation of psoas muscle response. If two point therapy localization requires a testing muscle such as the teres minor on the skull at the sphenoid for the thyroid tugging touch, and requires the other hand on the thyroid (point #4) use a casual muscle, any muscle on that side of the body as a test for



Use two point therapy localization while testing the related muscle or any strong indicator on the same side of the body.



confirmation of positive response for diagnosis.

The fourth area of the anterior trunk requires individual therapy localization and testing a convenient muscle for therapeutic treatment indications, but in this situation a sequential tugging therapy requirement in a precise sequential treatment as outlined for pyloric spasm. Follow the printed order of sequentialization, i.e., Pylorus or pancreas initially, then duodenum, then liver or gallbladder. The key here seems to be the initial sequentialization then followed by other digestive reflexes. See the appropriate chart.

The text "*DYNAMICS OF CORRELATION OF ABNORMAL FUNCTION*" - the Terrence J. Bennett lectures, by Ralph J. Martin, D.C., 1977, Sierra Madre, CA, is highly recommended. The L.A.C.C. library, in California may still be a source for this compilation of Bennett's concepts. The diagram of cooperative and antagonistic glands and organs cited by Bennett, are from this source, as are the 1956 chemical levels of balance - adapted themselves from earlier Harrower diagrams from the early 30 era. **The original skull areas are also depicted**; they were the source for the long and tedious correlation of the NV reflex areas in relation to specific muscles undertaken from 1968 through 1975. The NV areas with muscular correlation are from my friend David Walther, D.C.'s text "Applied Kinesiology Vol 1, 1981. These areas are two pointed in therapy localization to the anterior trunk areas #1 through 23. As mentioned earlier the NV areas on the head may also themselves be two pointed in therapy localization based on glandular antagonism and cooperation as per the original technique described earlier in this text. An example would be the parotid area #3, left and right on the chart, with pituitary #1 and or #2(see chart diagram #1 through 23). The original skull areas labeled "brain reflex areas of contact" have additional areas of help cited in "small print" (see diagram "brain reflex areas of contact"). For example, #1 on skull chart, frontal emotional, and #11 on skull chart, midsylvian emotional, and #12 temporal emotional. The areas additionally treated are gastro intestinal for #1, frontal emotional and gastro intestinal for #6, anterior fontanel, and #9, gastro intestinal, parietal, as in #11 on the skull, midsylvian emotional. Both Ws 11 and 12, as well as #1 on the skull chart are useful in clearing Encoded Memory problem patients. Simply correct existing problems and therapy localize #11 or #12 or #1 on the skull chart. Now observe if previous corrected problems quickly reoccur. If so, a gentle tugging contact held for 20-30 seconds on either #1, #11 or #12 will help maintain correction along with saggital suture spread and tap technique, as in the 1994-95 Manual. It was this author's opinion that this information previously cited was well known - this opinion was frequently found to be in error - therefore, these cited areas are redescribed. Much of the technique in AK has evolved from simple beginnings and is now part of a relatively large amount of therapeutically available information. The early use of the Bennett reflexes continue to be reproducible in present time, and therefore continue to show their value in difficult problem cases. Your attention is directed "Molecules of Emotion" by my friend, Candace B. Pert, Ph.D., Scribner, 1997, especially chapters 1 through 10. I am indebted to my friend, Scott Einhorn, D.C. for my copy of this excellent text. The section on pages 135 and 136, on Cannon versus James, and the section Page 141 "The Body is the Unconscious Mind", and the section on page 147, "Repressed Emotions are Stored in the Body", and the section on page 166 "God is in the Frontal Cortex" are intriguing areas in this book, by my good friend, Dr. Pert, who discovered the endorphins and all that involves. ICAK is mentioned in the appendix B, page 339. This book is good background material to read regarding the philosophy and physiology of the Bennett reflexes circa 1999.

George J. Goodheart, D.C.

PEDIATRIC TREATMENT SEQUENCE

Acute pyloric spasm

Start with Pancreas #9, then Pylorus #15, then Duodenum (2,3,4) #14, and end sequence with Gall Bladder #13

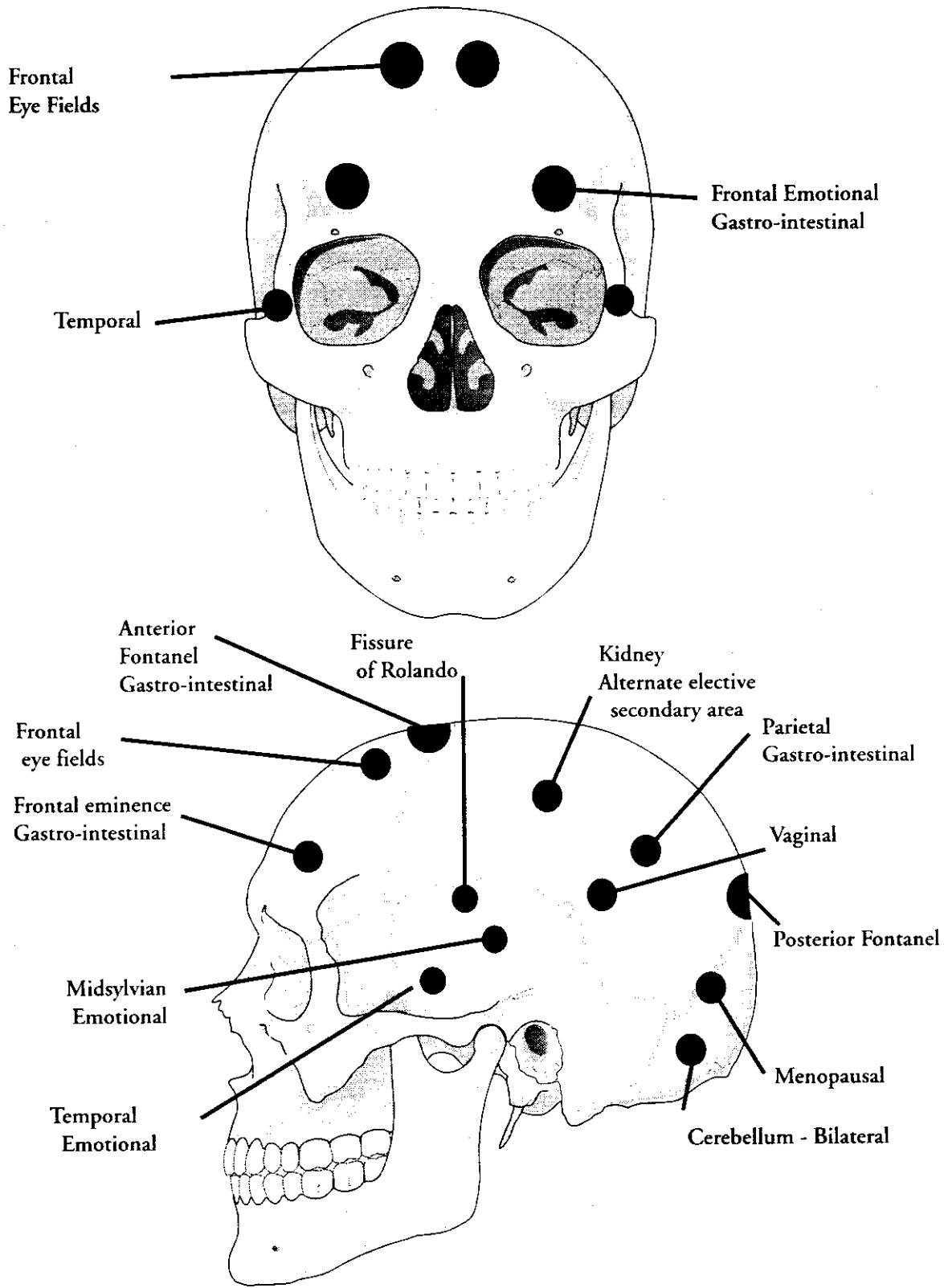
ALTERNATE PEDIATRIC SEQUENCE

Pylorus #15 Duodenum (2,3,4) #14 - Pancreas #9 - Liver (Mid clavicular line 5th rib) - Gall Bladder #13

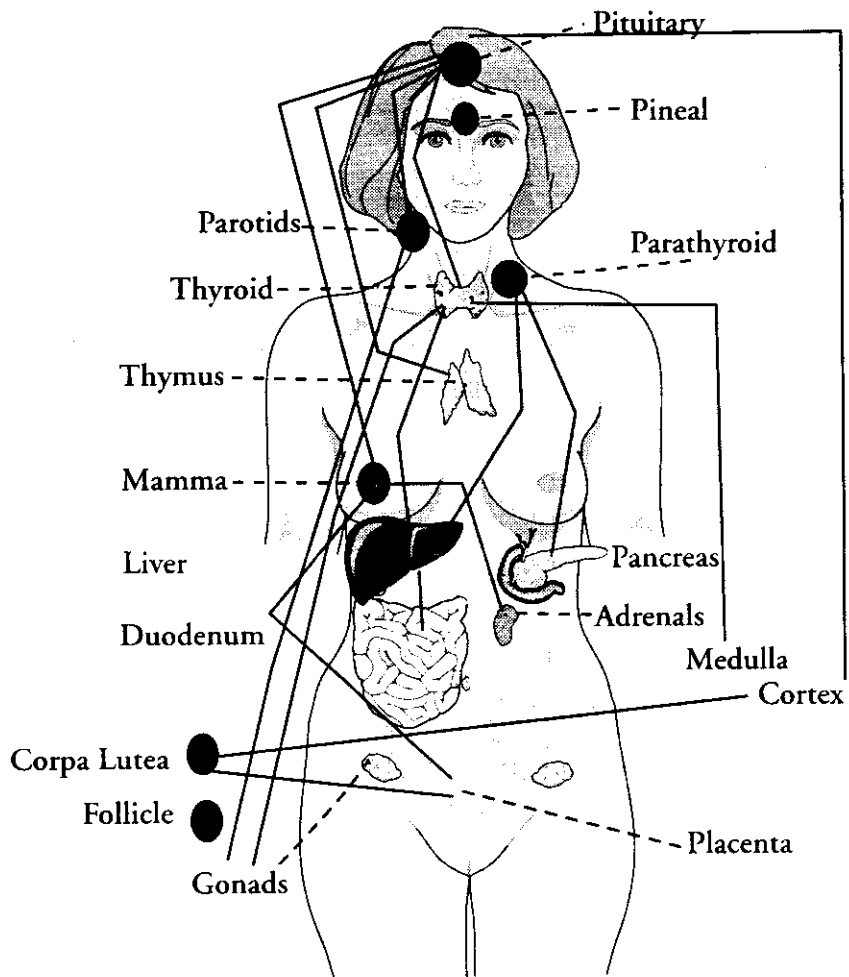
SEQUENCE PROCEDURE

Therapy localize individually and sequentially: pylorus #15 - duodenum (2,3,4) #14 - pancreas #9 - gall bladder #13, mark individual skin areas with skin marking pencil. Therapy localize pylorus #15, should be positive - hold tugging touch at #15 pylorus for 30-40 seconds, reassess previous therapy localization momentarily to gall bladder #13. Note response. Now treat duodenum (2,3,4) #14 - hold tugging touch for 30-40 seconds at #14, reassess for TL response. Now pass on to pancreas #9 - hold tugging touch for 30-40 seconds at #9. Reassess for response. Now pass on to gall bladder #13, if still positive to TL - hold tugging touch for 30- seconds. Reassess for treatment response. The sequence of pylorus #15, duodenum #14, pancreas #9, and then gall bladder #13, and or liver 5th rib area allows the proper digestive sequence to take place and is remarkably effective in pediatric pyloric stenosis, vomiting associated with childhood diseases, restoration of digestive gradient in difficult pediatric colic problems along with other digestive disorders common to childhood. It is a useful treatment pattern in small intestine (NEHT) malabsorption problems and works marvelously well for better nutrition as well as absorption. This technique has stood the test of time, is very effective and can be followed as a sequence even if therapy localization is not possible or available for a number of reasons. Naturally, common sense attention to pediatric as well as adult dietary guidelines should be followed. This technique will be demonstrated. See illustration for location of treatment areas. A word of caution and memory prompter: treat gall bladder and or liver area LAST. Recall Dr. Bennett's advise after his observations of how this situation should be managed. Along with the appropriate dietary measures, food combining and digestive supplementation, the above sequence is very useful in colitis, leaky gut syndrome and the management of Crohn's disease. The Bennett reflexes offer and afford a smooth and even progressive digestive gradient, and it is remarkable for its simplicity and efficient therapeutic response and can be taught to patients as a self-care measure.

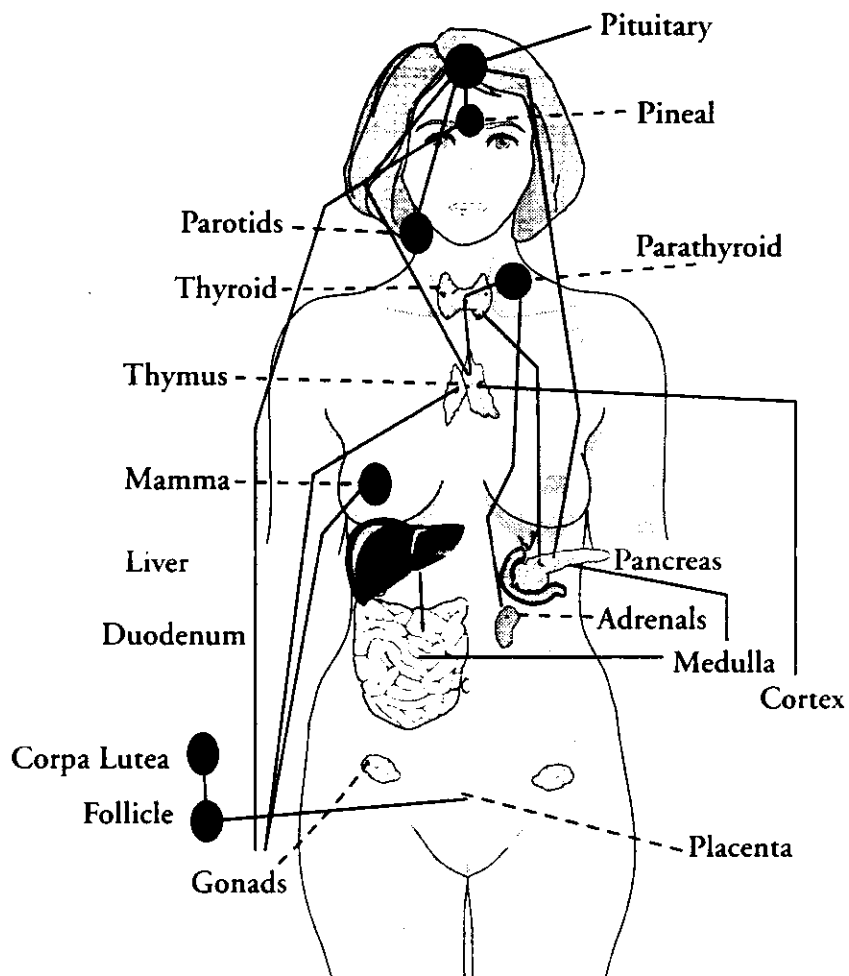
Bennett neurovascular Brain Reflex Points

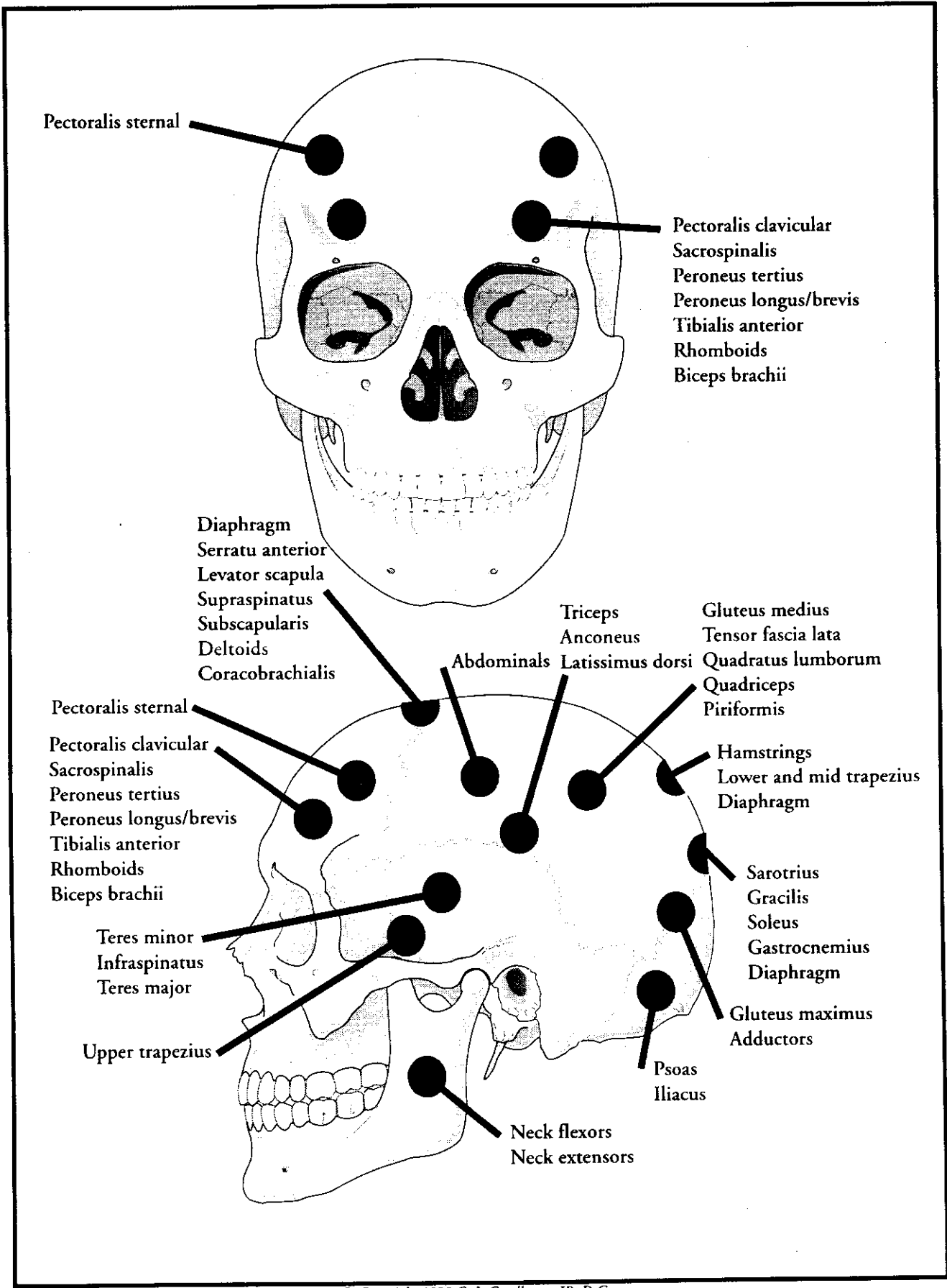


Synergistic Glands and Organs



Antagonistic Glands and Organs





Pectoralis sternal

Pectoralis clavicular
Sacrospinalis
Peroneus tertius
Peroneus longus/brevis
Tibialis anterior
Rhomboids
Biceps brachii

Diaphragm
Serratu anterior
Levator scapula
Supraspinatus
Subscapularis
Deltoids
Coracobrachialis

Abdominals
Triceps
Anconeus
Latissimus dorsi
Gluteus medius
Tensor fascia lata
Quadratus lumborum
Quadriceps
Piriformis

Pectoralis sternal
Pectoralis clavicular
Sacrospinalis
Peroneus tertius
Peroneus longus/brevis
Tibialis anterior
Rhomboids
Biceps brachii

Hamstrings
Lower and mid trapezius
Diaphragm

Teres minor
Infraspinatus
Teres major

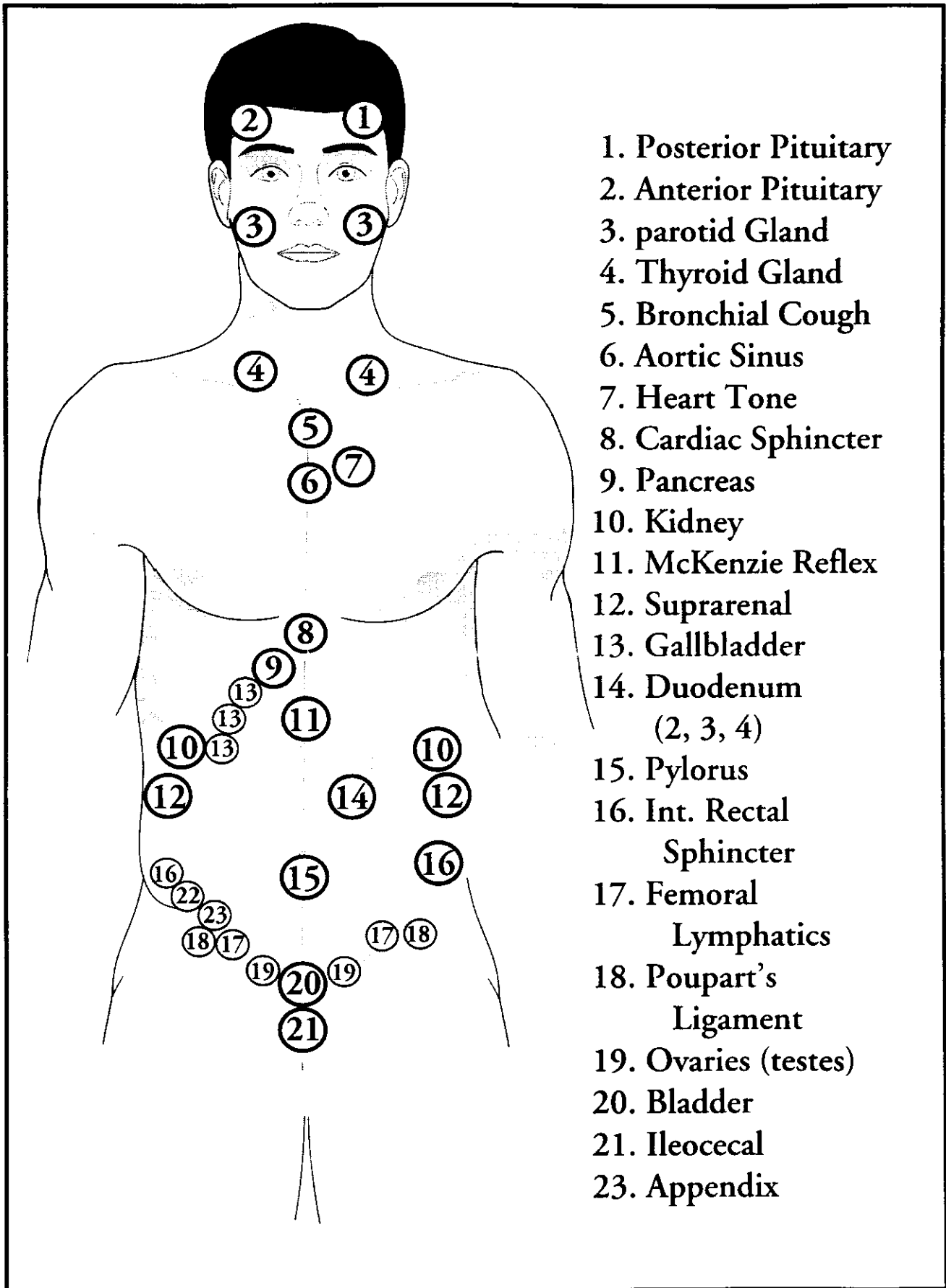
Sarotrius
Gracilis
Soleus
Gastrocnemius
Diaphragm

Upper trapezius

Gluteus maximus
Adductors

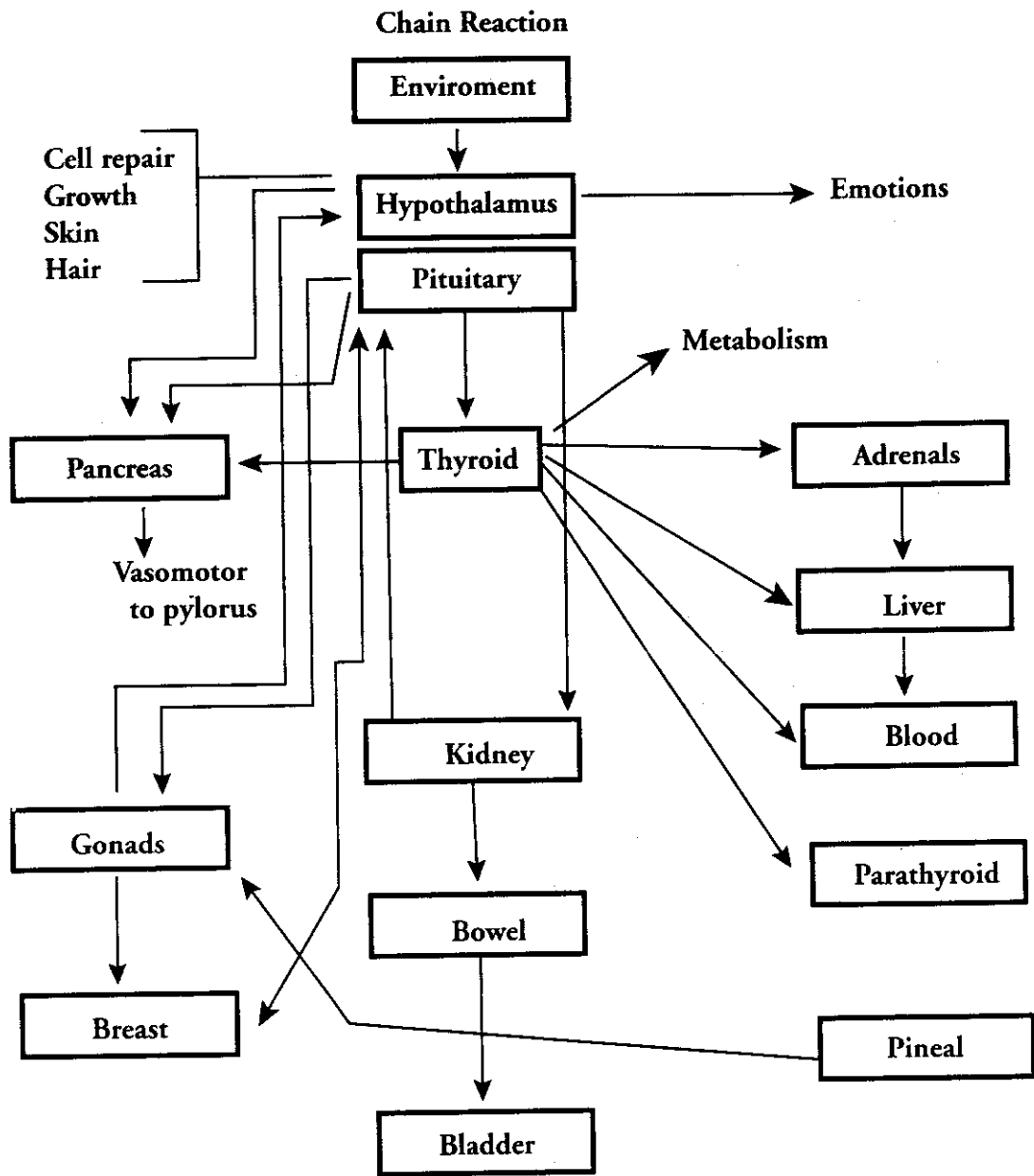
Psoas
Iliacus

Neck flexors
Neck extensors



1. Posterior Pituitary
2. Anterior Pituitary
3. parotid Gland
4. Thyroid Gland
5. Bronchial Cough
6. Aortic Sinus
7. Heart Tone
8. Cardiac Sphincter
9. Pancreas
10. Kidney
11. McKenzie Reflex
12. Suprarenal
13. Gallbladder
14. Duodenum
- (2, 3, 4)
15. Pylorus
16. Int. Rectal Sphincter
17. Femoral Lymphatics
18. Poupart's Ligament
19. Ovaries (testes)
20. Bladder
21. Ileocecal
23. Appendix

Chemical Level of Balance



Arrows point in the direction of influence

adapted from Neurological Research Foundation, Inc. San Francisco, Ca. by T. J. Bennett - 1956

Adrenal	Sartorius, Gracilis, Gastrocnemius, Soleus, Tibialis posterior
Appendix	Quadratus Lumborum
Bladder	Tibialis anterior, Peroneus longus, brevis and tertius
Brain	Supraspinatus
Climacteric	Adductors
Eye and Ear	Upper Trapezius
Gall Bladder	Popliteus
Heart	Subscapularis
Kidney	Psoas, Iliacus,
Large Intestine	Tensor fascia lata
Liver	Pectoralis sternal, Rhomboid
Lung	Deltoid, Serratus anterior
Pancreas	Latissimus dorsi, Triceps
Parathyroid	Levator scapula
Rectum	Hamstrings
Reproductive organs	Gluteus maximus, Gluteus medius, Piriformis
Sinuses	Neck flexors, Neck extensors
Small Intestine	Quadriceps, Rectus abdominus, Abdominal oblique
Spleen	Mid trapezius, Lower trapezius
Stomach	Pectoralis clavicular, Biceps
Thymus	Infraspinatus
Thyroid	Teres Minor

Notes

CERVICAL DISC SYNDROME

A Precise Diagnostic and Therapeutic Procedure for Correction of Cervical Disc Lesions

John V.N. Bandy, D.C., DIBAK

ABSTRACT: Certain characteristics and signs are exhibited by cervical disc syndrome. Disc lesions generally do not therapy localize. However, they do challenge. Quite often disc lesions will cause neurological insult. When this occurs, the myomere will be affected causing a muscle or muscles to demonstrate measurable changes in particular patterns. We are concerned specifically with cervical disc syndrome in this paper.

INTRODUCTION

In cervical disc syndrome, muscle change or weakness is different in character from the typical weakness found in applied kinesiology. That is, these muscles are not "turned off" as is a muscle when a neurolymphatic, neurovascular, or a vertebral subluxation is involved, but rather show weakness indicating that they are not receiving full nerve supply. This is much like a rheostat phenomenon in that the muscle strength is diminished in proportion to the degree of nerve root or cord pressure applied by the herniated disc. This peculiarity can be used to diagnose not only the level of the disc lesion, but also the best position for its correction.

There is disagreement among authors as to the myomere-muscle relationships. This author has examined more than five hundred patients exhibiting this peculiar weakness and agrees with Rene Calliet, M.D. as to which muscles are supplied by the cervical myomeres. He listed as his findings the following myomere-to-muscle relationships:

Deltoid, C₆ nerve root, C₅ disc;
Triceps, C₇ nerve root, C₆ disc;
Finger Abductors, C₈ nerve root, C₇ disc.¹

He also lists areas of subjective pain and tenderness that a doctor may palpate that correlates to each specific lesion. These areas that will help you confirm your diagnosis of a cervical disc lesion are seen in Figure 1. In addition, a positive dejerine's sign may be present along with neck rigidity and diminished range of motion (ROM) towards the involved side.

¹ Calliet, Rene, M.D., Neck and Arm Pain, F.A. Davis Company, Philadelphia, 1973, pp. pp. 70-72

Calliet also states that palpatory pain is often elicited over the exit of the cervical nerve root involved.² Paresthesia may also occur in the later stages of a cervical disc syndrome (CDS), and these are given in Figure 1.

CERVICAL DISC SYNDROME

The procedural outline that follows has been found to be most accurate in determination of cervical disc lesions. First, test the muscles listed on each upper extremity to determine any weakness. After determining that there is a muscle weakness (i.e. the right deltoid), there are two diagnostic procedures. First, find the direction of correction by directly challenging the disc (C₅) associated with the weak muscle (deltoid). The direction of challenge which strengthens the weakened muscle is the direction of the corrective thrust. Secondly, you must now determine the proper head position of the patient for your thrust by the following method:

1. Again determine that you have a muscle weakness.
2. Next, ask the patient to place their neck into full extension. Many times this in itself will now strengthen the muscle. Frequently, however, this alone is not sufficient and you must add rotation to one side or the other to negate the weakness.
3. When the proper head position is found, muscle weakness will be abolished, and this is the proper head and neck position for your corrective thrust. Sometimes one corrective thrust is not sufficient to make a total correction. Here, the author has found that an additional line of correction is necessary and can be determined by repeating the same procedure until all muscle weakness is abolished.

It may be important in certain situations to place the patient in a sitting position to again check for a cervical disc syndrome. Occasionally a posturally dependent cervical disc problem will not show any positive checks while the patient is recumbent. Also, on rarer occasions when a patient states that relief from their pain did not last, and yet you do not find any return of cervical disc signs, the patient will show positive signs when placed in a sitting or standing position. The important consideration here is to know that a correction properly made should be permanent, granting that there are no more future injuries or aggravations (see the last paragraph). It is also important to note that only the specific muscle involved with the disc is to be used as the indicator muscle for the challenge. Any other indicator muscle (I.M.) used may give information not directly concerned with the disc herniation, and should therefore be avoided. When using these specific related muscles, especially the Finger Abductors, it is important to compare them bilaterally.

² Ibid.

This helps to avoid confusion regarding the absolute strength or weakness of these muscles.

Quite often, not all signs or patient symptoms may be at the stage where typical diagnostic procedures would pick up a cervical disc herniation. With the above applied kinesiological approach, many disc lesions are discovered long before usual methods of determination would be diagnostic.

THE CERVICAL DISC SYNDROME AND THE LOWER EXTREMITIES

Cervical disc syndromes can and do at times impair nerve supply to the lower extremities. The nerve roots L₄ (rectus femoris), L₅ (anterior tibialis) and S₁ (gastrocnemius) have all been found at one time or another to be involved in CDS cases. In these cases, the author has found that the clue to this is with a patient presenting with multiple muscle weaknesses of the lower extremities, which are negated when the patient places the head and neck in the correct hyperextended position. After proper correction of the CDS, the doctor will find that these multiple lower extremity muscle weaknesses will be abolished.

Research conducted by Torkildsen, lended credence to the above etiology. He supports the view that changes in the cervical intervertebral canal giving rise to brachialgia may simultaneously be the cause of pains in the leg resembling sciatica. He terms this situation as brachialgic sciatica, and this differs in nature from pure lumbar disc lesions.

Pyramidal tract signs are discussed by Torkildsen relating to some differential diagnostic points. These include:

1. increased deep tendon reflexes on the involved (painful) side;
2. an extensor response to the plantar reflex;
3. two or more involved dermatomes on the involved (painful) leg side;
4. the bilateral achilles reflexes remain equal.

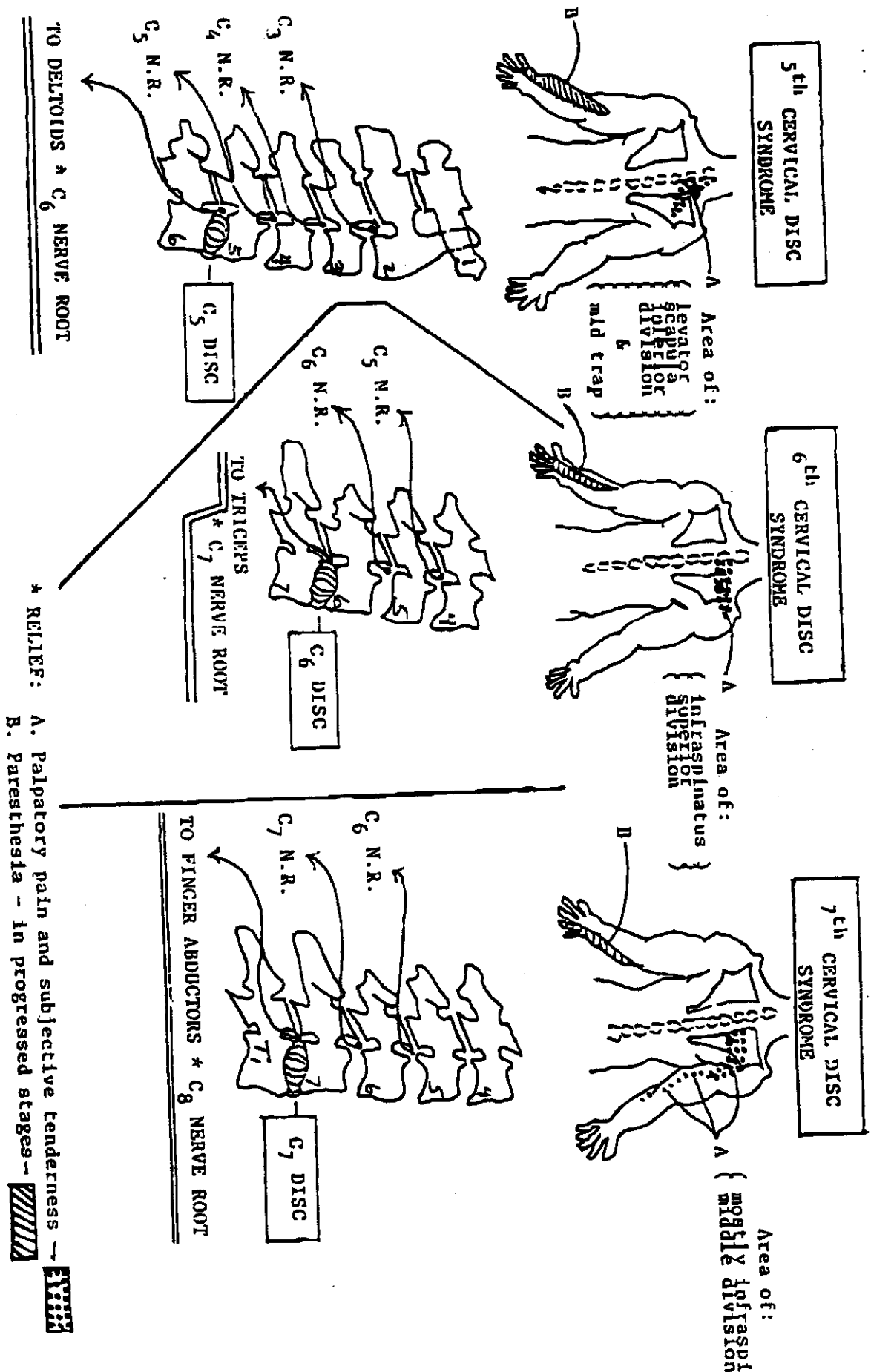
These clues are concomitant to the peripheral nerve lesions of the arm.³

CONCLUSION

In conclusion, it is important to allow the patient unencumbered time in the repair of the disc herniation. Since it can take up to six months for annular fibers to heal, care must be used in avoiding activities which would again force nuclear material through the impatent area. Therefore, strict avoidance of activities employing neck flexion is to be carried out. This would include watching T.V. with the head propped up, reading in such a manner, or sewing in the lap while looking down, etc. It is also worth mentioning that the author has seen a high frequency of upper trapezius involvement with CDS, needing SCS technique for proper support.

³ Torkildsen, Acta Psychiatric Neurology Scan, 1956, 31: 333-44.

FIGURE 1



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