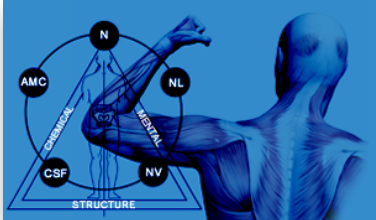


# Pathways To Health



A Healthcare and Selfcare Newsletter From The International College of Applied Kinesiology - USA Chapter

## Editor

Nancy Doreo, DC, CABNN

## Contributors

Scott Cuthbert, DC  
Angela Darragh, NMD  
Mark Force, DC

## Contents This Issue

AK & Neurological  
Disorganization - p2  
Are You Walking Right? -  
p3  
Q & A - p4

Your doctor of applied kinesiology is uniquely trained and qualified to provide care for the health issues covered in this newsletter.

Please share this newsletter with friends and family!

\*The information in this newsletter is not intended to diagnose or treat the individual.

Many chronic health problems can be solved with cranial-sacral therapy

## The Cranial-sacral Mechanism and Your Health

### On The Fundamental Importance of Your Head

So many health problems arise from a mechanism in the body about which the majority of doctors are unaware: the cranial-sacral mechanism. Members of the osteopathic and chiropractic professions have made a major effort to understand dysfunction in this area and to correct it. Unfortunately this knowledge has not been widely dispersed, and a majority of individuals continue to suffer with health problems which could be corrected if a larger number of doctors were aware of the wide range of problems developing from disturbances in the mechanics of the human head.

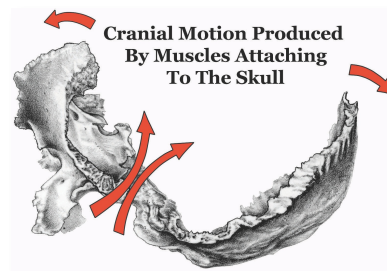
Many of the areas in which application of the cranial concept might be of great benefit are controlled by specialists who are not yet aware of this very potent and vital tool for their patients. These specialties include pediatrics, obstetrics, dentistry, psychiatry, ear-nose-and-throat doctors, and the general practitioner. Other conditions that may be caused by cranial problems are hypertension, impaired brain circulation, disturbances in the endocrine and digestive systems, vision, hearing, and general neurologic disorganization. Parents and teachers often assign improper labels to children such as "slow learner"; "poor reader"; "dyslexic"; "poor listener"; "hyperactive"; or "poorly disciplined" – not realizing that sensori-motor confusion arising from cranial disturbances underlie each

of these conditions. Unfortunately, these patients tend to travel from doctor to doctor receiving only temporary -- if any relief -- from their condition.

### The Applied Kinesiology Revolution in Cranial Therapy

The concept of a Primary Respiratory Mechanism (PRM) within the nervous system was conceived over 75 years ago by William Garner Sutherland, DO, the grandson of a Scottish immigrant born in 1873. Since that time there has been little conceptual or experimental progress confirming Sutherland's model

for cranial-sacral motion. The profound clinical results of cranial treatment have justified the practice, but the time has come for a fundamental change in this model, which applied kinesiology offers.



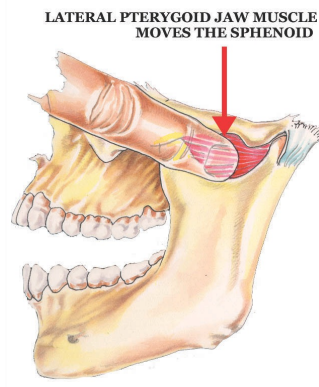
In recent years, research and theory have highlighted the roles of muscles, joints and nerves in the function of the neuro-musculoskeletal system. This system has been described as the Primary Machinery of Life as it is how we move and communicate. It is also now acknowledged that the amount of cerebrospinal fluid produced per minute is too small a quantity to have the power to move the cranial sutures, so the CNS does not have the contractile elements nor tensile strength to move itself -- and certainly not the whole cranium nor the rest of the body. All motion in the body is a result of muscular action whether striated, smooth or cardiac.

Applied Kinesiology offers a fundamental change in perspective from the classical osteopathic and Sacro-Occipital view -- that of an 'internally driven' Primary Respiratory Mechanism (PRM), where an inherent speno-occipital motion drives the other bones -- to an externally driven system where muscles attaching to the cranium move the bones.

It has been hypothesized in AK that the powerful muscles attaching directly to the cranial bones move rhythmically and in complex patterns, which are capable of exerting significant and constant pulls and pressures on the skull that demand a degree of resilience, flexibility and palpable motion at the sutures.

Deficits in strength, endurance, and increased fatigability have been consistently demonstrated in the muscles that attach to the cranium in patients with whiplash associated disorders, neck pain and headache. Correction of these weaknesses by AK cranial therapy has been documented for 40 years.

#### **AK Cranial Examination Includes All The Muscles That Move The Head**



This is a revolutionary improvement in the approach to, and concepts behind, cranial therapy. In AK we ask: how is "tennis elbow" explained without considering the muscles moving the elbow? The cranium should be looked at in the same way, no more mysteriously than the rest of the body. The earlier belief that the movements palpated in the cranium were driven by a powerful but still unproven PRM meant that the mandible was rarely addressed in classical cranial work. However in AK there is recognition of what is called the stomatognathic system, indicating the relationship of cranial mechanics to many other body structures. For instance in the conventional cranial management of whiplash strain, most attention is paid

to the soft tissues of the cervical spine. However, as an appendage to the anterior skull, the mobile jaw, if abruptly altered in its function, is capable of straining the entire cranium.

The muscular links with the mandible create a connection between temporomandibular dysfunction and sphenoidal dysfunction, with influences being possible from either direction. Trapezius muscle dysfunction forces the occiput into flexion or extension and normalization of the strength and function of the muscle must be achieved before treatment to the cranial base can be effective. Changes in upper trapezius strength have been demonstrated in

patients with cranial faults, whiplash, neck pain and headache. The influence on sutural mobility of a malfunctioning sternocleidomastoid or upper trapezius muscle would be profound and sutural disturbances are beyond question a physiological occurrence. During the AK treatment of cranial dysfunction, careful attention is paid to muscular dysfunctions that definitely impact cranial suture mobility.

Any attempt to normalize cranial function without appropriate attention to these powerful muscular influences, acting directly on the sutures and therefore on the motion potentials of the cranium, makes results short-lived. The causes of muscular imbalances like these are the AK cranial practitioner's bread-and-butter.

Doctors using AK not only evaluate your entire body from your feet to your upper neck, but they examine and treat your jaw and head. Then will you have had a truly holistic examination.

#### References

Article contributed by Scott Cuthbert, DC.

#### **AK and Cranial Research**

The cranial-sacral primary respiratory system was initially described by the osteopathic physician, William G. Sutherland in the 1930s (Sutherland, 1939).

Understanding and treatment of this system was further developed by Drs. DeJarnette, Blum, Pick and Ferrari in chiropractic; Drs. Chaitow, Magoun, Frymann, Upledger, Milne in osteopathy; and von Piekartz and Bryden in physiotherapy followed.

Within applied kinesiology, Drs. Goodheart, Walther, Crisera and others have published significant research regarding the diagnosis and treatment of the cranial mechanism.

Dr. George Goodheart's discovery that the musculoskeletal system and manual muscle testing (MMT) accurately reflects function of the cranial mechanism in 1968 brought the entire field of cranial therapy into accessible, reproducible, scientific form and practice.

A recent review of the research literature on the biological plausibility of cranial movement as well as outcomes of cranial treatment has been published by Blum & Cuthbert. (2006)

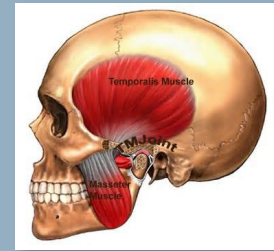
A comprehensive presentation of the outcomes literature produced by AK clinicians over the past 40 years will soon be available -- Applied Kinesiology: Clinical Techniques for Upper Body Dysfunctions.

#### References

Scott Cuthbert DC practices in Pueblo, CO. He has published two brand new textbooks on AK in 2014 and 2013, and is developing more covering the upper body, cervical spine, cranium and TMJ.



*Whiplash can cause TMJ dysfunction*  
*Restriction/pain may be TMJ dysfunction*  
*TMJ problems commonly cause neck pain*  
*AK diagnoses causes of TMJ dysfunction*



## Temporomandibular Joint Dysfunction: A Complex Health Challenge

Jaw pain can be excruciating and crippling. The common signs of temporomandibular joint (TMJ) dysfunction are: TMJ pain, limitation of mouth opening, pain in the chewing muscles, grating or clicking joint sounds and deviation of the mouth on opening. Others include: locking of the jaw, pain in the head, neck, face and/or shoulders, a sudden change of the way the teeth fit together. Any of these signs and symptoms warrants a complete examination of the TMJ and surrounding structures from your practitioner specializing in applied kinesiology.

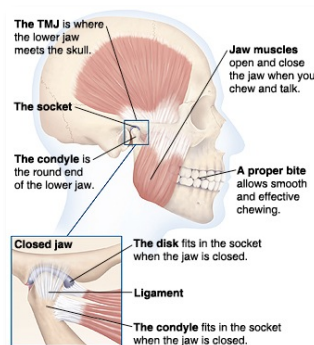
Injuries to the jaw range from athletics, fighting, biting down too hard, poor dentition, bruxism (night-time tooth grinding), auto accidents, clenching, pathologies and arthritis. All are subject to causing brief or long-term dysfunction.

The jaw joint itself is comprised of a socket, formed by cranial bones in front of the ear, and the lower jaw, mandible, which has two surfaces protruding upward. One protrusion closest to the ear is covered with cartilage and fits into the cranial socket, while the other serves as a surface for muscle attachments beneath the cheek bone. The actual joint formed between the cranium and mandible contains a disc suspended front-to-back by ligaments and surrounded by synovial fluid to protect wearing of the cartilage surfaces covering the bone.

When injuries affect this joint, evaluation of face, throat and neck

muscle balance, cranial faults, upper cervical subluxation, and even sacroiliac dysfunction, your applied kinesiologist is particularly skilled in teasing out the exact cause and appropriate therapy to restore and optimize function. Nutrients such as pantothenic acid and iron could also play a role in sub-optimal performance for TMJ muscles.

Cases of whiplash are likely to incur TMJ dysfunction because the jaw also suffers a whipping motion, thus straining the soft tissues associated



with the joint. Cracking and grating sounds may be an indication of deteriorating cartilage surfaces or displacement of the disc. Try this brief home evaluation and note your findings. Look at your face in the mirror. Notice the jaw line, cheek bones and cheeks. Are they even? Next, slowly open your mouth fully, watching for any sideways movements or sounds. Sometimes a jaw will open with an "S" shaped movement, or it will shift to one side rather than straight down. Then firmly press into the muscles over the temples located above the cheek bones and in front of the ear.

Abnormal findings need further investigation.

In his paper to AK health professionals, Dr. Jeffrey Weber, DC, explored the research within the ICAK and documented clinical findings that show where TMJ dysfunction was seen to be caused by bilateral hypertonicity of the posterior temporalis muscle. Dr. Weber evaluated 11 females and 9 males. "All patients were under undue emotional and/or psychological stress... Upon palpation, the temporalis muscles were found to be tender, bulging and hypertonic... TMJ dysfunction was localized bilaterally in the open position... the external pterygoid was seen to be reactive to the temporalis." "After treatment, a number of patients experienced some 'emotional catharsis.'" "To summarize, a connection was made between the emotional upset and the hypertonicity of the temporalis and the TMJ dysfunction."

Applied kinesiology's Triad of Health reminds us to evaluate mental/emotional, chemical/nutritional and structural aspects of any TMJ problem. Seek out the proper care and therapy that your applied kinesiology specialist can provide. AK is practiced world-wide and celebrates 50 years in 2014.

### References

Jeffrey Weber, DC is president of the Chiropractic Board of Clinical Nutrition of the American Chiropractic Association. Dr. Weber practices in Brooklyn, New York.



# Q&A

*How would I know I need craniosacral therapy?*

The craniosacral system has effects on nerves that relay sensory information to the central nervous system (brain) and on function of nerves that coordinate muscles tone, posture, and movement. This system also has effects on nerves that control and coordinate internal organs and functions including heart, lungs, digestion, hormonal systems, and metabolism. Because of this a wide range of health problems can be caused by dysfunction of the craniosacral system.

Always consider the need for craniosacral therapy when a whiplash or concussion injury does not completely heal; when there are residual problems despite care. Very often an unresolved injury to the craniosacral system is the underlying cause of ongoing problems after these kinds of injuries. It is interesting to note that these types of injuries often result in digestive problems and symptoms (reflux, indigestion, constipation) and hormonal imbalances (premenstrual syndrome, dysmenorrhea, severe fatigue, insomnia) that were not present prior to injury.

Some of the symptoms to look for are problems of vision and hearing, headaches and facial pain, poor balance or coordination, hypertension, digestive problems, hormonal imbalances, reading and learning disabilities, and recurrent neck and back pain.

The range of signs and symptoms of craniosacral system dysfunction are so great because the system has a role in regulating nerve tone throughout the body; essentially any complex or chronic illness should be evaluated for the possible involvement of the craniosacral system, either as a primary or contributing factor.

*Shouldn't I see a dentist for my jaw pain*

Consulting a dentist may be an important part of solving jaw pain. Yet, dental evaluation, in many cases, may not reveal the cause of jaw pain. Why? Because jaw pain is often caused by dysfunction of the stomatognathic system, the complex and integrated function of the jaw, head, neck, and shoulders, even of the pelvis. All of these structures must function in an integrated fashion to work the way they are supposed to and be pain free.

Your doctor trained in applied kinesiology is uniquely trained to evaluate all of these systems and their integration. In this way, the often distant cause of jaw pain can be found and solved.

*My night guard bothers me and I find it on the floor in the morning. Is there anything else I can do?*

Yes. As with any strain, sprain or soft tissue injury, the jaw is capable of conservative rehabilitation and improvement in most cases. Seek an evaluation with an AK doctor who has training in this subject.