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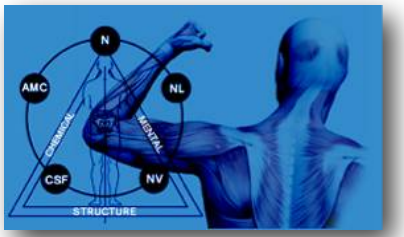
Pathways To Health



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

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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!

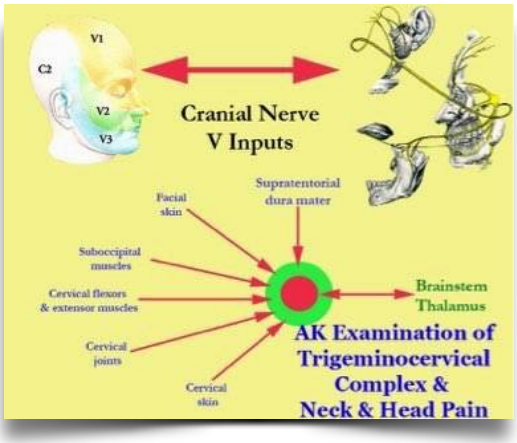
*The information in this newsletter is not intended to diagnose or treat the individual.

Chronic neck pain due to muscle dysfunction is efficiently solve with AK methods

Applied Kinesiology: The Answer to Neck Pain

There are two great puzzles in this world that foster debate among doctors. One is the wonder of the universe, the other is neck and head pain. Applied Kinesiology research into these conditions has made the multiplicity of factors creating your neck pain identifiable, and therefore fixable.

For over 50 years applied kinesiologists have investigated methods to help enhance the comprehensive clinical diagnoses and treatment methods for patients with neck pain. Collectively, this has made the AK management of cervicogenic headache, cervicobrachial, and idiopathic neck pain including whiplash-associated disorders among the best in the world.



Our AK philosophy is that if we can identify, quantify, and understand the abnormal factors involved in neck pain disorders from a broad, whole-person and multi-systems perspective, we lay the foundation for better differential diagnosis and recovery.

Neck pain patients have a marked heterogeneity of presentation, which forces doctors to realize the importance of understanding the variety of impairments that may present as well as the indicators for positive treatment outcomes.

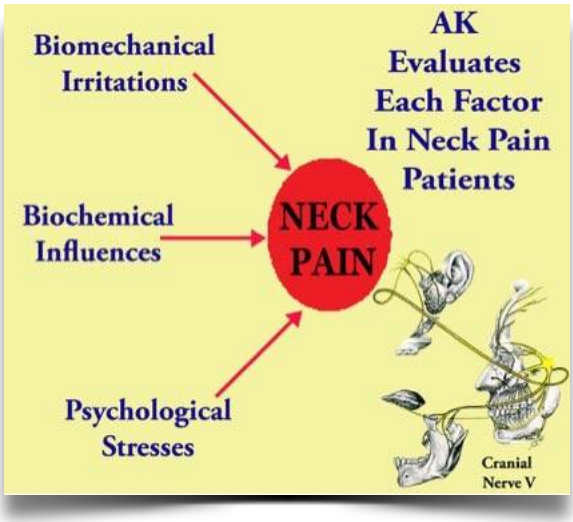
Many techniques, including electromyography (EMG), dynamometry, muscle biopsy, magnetic resonance imaging, ultracineography, laser doppler flowmetry, and AK cervical manual muscle testing have been used to expose a diverse range of neuromuscular adaptations in people with neck pain. Knowledge gained from cervical spine research has underpinned the specific AK approach for the assessment and treatment of neck muscle and joint dysfunctions. This research has extended into the development of therapeutic treatment programs that have shown positive therapeutic benefits when tested in clinical trials.[1-8]

Controlled clinical studies have shown that dysfunction and pain specifically in the cervical spine will produce **inhibited** muscles. These data indicate that the body's reaction to injury and pain is not increased muscular tension and stiffness; rather **muscle inhibition is often far more significant** as measured by many different methods of testing. In 1920, Cyriax was the first to describe the relationship between muscle weakness (detected with a manual muscle test) and headaches.[9]

In 2008 an important literature review on neck muscle strength confirms that “overall studies indicate that compared to normal subjects patients suffering from neck-related disorders present with **significant reduction in cervical strength**.”[10] If we are not capable of diagnosing and correcting this fundamental problem in patients, we are missing the essential piece of the puzzle in your neck pain condition!

The Trigeminocervical Nucleus in the AK management of neck pain

The neuroanatomic basis for cervicogenic headache is in the trigeminocervical nucleus caudalis in the gray matter of the spinal cord at the C1-C3 level, where there is a convergence on the nociceptive (pain sensing) second order neurons receiving both trigeminal and cervical input. On this anatomic basis, it is possible to explain why cervical spinal problems may also cause headache.[11] Interneurons within the trigeminocervical nucleus allow for an exchange of sensory information between the upper cervical spinal nerves and the trigeminal nerve. It is through this exchange of sensory information that nociceptive signals from the anatomic structures and soft tissues of the upper region of the neck can be referred to the sensory receptive fields of the trigeminal nerve in the forehead, temple, eyes and face. Each of these areas are specifically examined in AK.



Neck pain patients also lose control of other types of body control and movement. Several studies have reported decreased proprioceptive acuity (accurate sense of body motion and position), disturbances of eye movement control,[12] and balance[13] in people with neck pain. It has also been proposed that neck muscle fatigue may affect mechanisms of postural control by producing abnormal sensory input to the central nervous system with a persisting sense of instability.[14]

Olesen[15] proposes that perceived headache might be the sum of painful inputs from cranial and extra-cranial tissues (neck, shoulders, jaw) converging on the neurons of the trigeminal nucleus. In this "integrative model", AK doctors can show how vascular, supraspinal (nutritional or psychological), or muscular inputs may be relevant for migraine or tension-type headaches. Previous studies have confirmed that sensitized muscle nociceptors (pain receptors) are a common cause for chronic and episodic tension-type headache.[16] For this reason, your AK doctor focuses treatment on the causative problems and the recovery in the muscles of your neck and head like no other physician in the world.

For AK patients, your doctor’s in-depth understanding of how and why cervical spine disorders can influence such body-wide functional control, as well as being able to quantify these impairments and quickly discover the precise “answer” to the impairments found, provides precise assessment and interventions for neck pain.

Many organic problems refer pain and malfunction into the neck as well. The tonsils[17] are important, as they may cause congestion at the cervicocranial junction between the occiput and atlas vertebrae, which is a most important region, linked to many other key regions of the body. There may also be trigger points in the sternocleido-mastoid and in the muscles attached to the hyoid.[18] This may interfere with the posture of the head (weighing approximately 15 lbs.), causing head-tilt and thereby disturbing the entire body economy. Even digestive disturbances may interfere with neck function via the afferent fibers of the phrenic nerve.[1, 4-5] Digestive, cardiac, lung, ear-nose-and-throat, and even disturbances in your feet can all be a factor in neck pain and are effectively diagnosed and treated with AK, making the referred-pain in the neck resolve.

Over the course of a lifetime, greater than 70% of people experience serious neck pain.[19] These disorders occur commonly in the working population, causing considerable morbidity and sickness absence and thereby a significant economic impact.[5] Fifty percent of college students in the USA experience neck pain.[10] High prevalence rates have also been reported for computer workers[20] and textile workers.[21]

The structure of your neck is nothing else but the physical expression of your entire body’s function and only AK can give you this kind of comprehensive examination.
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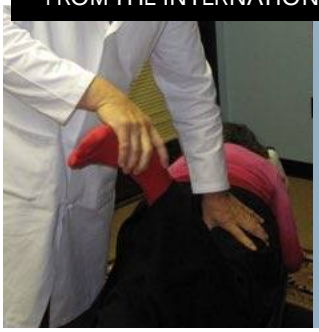
References

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



- ***Chronic knee pain can come from virtually anywhere in the body***
- ***AK finds out whether knee pain has a biomechanical, biochemical, or emotional cause***

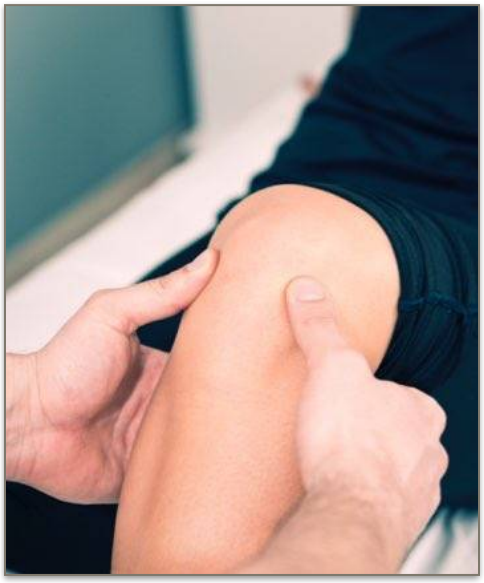
Chronic Knee Pain: Example for the Effectiveness of Applied Kinesiology Methods

Knee pain can be a great and greatly frustrating mystery. Though a clear injury is often the cause, it is also true that knee pain can begin with no apparent injury. Then, too, the solution, the means to solving it, can be elusive and it is common for people to go from doctor to physical therapist to trainer and back to yet another doctor attempting to find a solution. Medication is certainly no long-term solution as it does not solve the reason, the cause, for the knee pain, though medication may be useful to manage it.

The biggest consideration as to why knee pain can be so frustrating to solve is that it can arise from structural problems in the knee itself or from the pelvis, hip, or ankle and foot, neurological inhibition of muscles that support the knee, organ dysfunction that leads to reflex weakness of the muscles of the knee, or from biochemical stress that effects the control of inflammation and the repair of injured tissue (muscles, tendons, ligaments, cartilage, and connective tissue) of the knee. Knee pain can even arise from chronic emotional stress and the resulting increase of the inflammation process and decrease in the rate of tissue repair and maintenance.

Knee injuries that don't heal are often due to inadequate healing of the soft tissues, a systemic or biochemical problem, or from persistent patterns of muscle weakness or dysfunction that prevent essential support to the knee during standing, walking, or athletics.

Applied kinesiology (AK) is the perfect approach for defining these potential reasons for knee pain. AK is an amazingly efficient method for defining the cause of dysfunction and whether that cause is biomechanical, biochemical, or emotional through the Triad of Health model. Your AK doctor can quickly and logically challenge and observe your system using manual muscle testing along with orthopedic, neurological, and physical exams and lab findings to identify the underlying cause for knee pain.



Your knee reflects function of your whole body and the cause of knee pain will often be missed unless all of the possible connections are considered.

Biomechanical dysfunctions from the pelvis, hip, ankle, and foot may directly effect the mechanics of the knee.

Biomechanical dysfunction of distant joints anywhere in the body may disrupt the normal nerve information (proprioception) from those areas and disrupt the optimal tone to the muscles of the knee. It is, also, possible that muscles of the knee may need specific rehabilitation. All of these potential issues can be identified and addressed by AK methods.

Organ stress may cause reflex inhibition of muscles that stabilize the knee through the organ-muscle relationships (viscerosomatic reflexes) recognized in AK. Organs that can effect the knee in this way are primarily the small intestine, large intestine, male and female organs, gall bladder, and adrenal glands. Improved function of these organs/systems through health care and/or self care as directed through AK methods can restore muscle support and function of the knee.

Even chronic emotional stress is commonly a cause for chronic and ill-defined knee pain through the ultimate effects of chronic emotional stress on adrenal function, control of inflammation, and repair and maintenance of muscles and supportive connective tissue.

AK methods cut through this maze of potential causes to **the** underlying cause of knee pain.

References

Mark Force, DC, a diplomate and teacher of applied kinesiology, lives in Ashland, Oregon.

Q&A

What can I do to help solve my neck pain?

Imbalanced neck muscles are the key to neck pain and these imbalances can be due to a lack of strength or a lack of flexibility. Symmetry of muscle tone gives your neck more support and promotes flexibility. Applied kinesiology methods are essential for restoring the neurological organization to your system required for optimal muscle tone and coordination. However, there is much you can do, also.

Pushing against your hands isometrically (contracting your neck muscles against your hands without moving) forward, back, and to each side tends to help balance your neck muscle strength and balanced muscle strength naturally promotes flexibility. Try this yourself by pushing your head against your hands in each of the four directions isometrically for 5-10 seconds. Do this in each direction in turn two or three times. This is something that you can do a few times a day and you will be surprised to find how much better and more flexible your neck feels!

Being observant of how you sleep, sit, stand, and move will also help your neck. Sleeping on your stomach is very stressful for your neck; back and side sleeping is much better. Too thick a pillow will strain your neck; orthopedic pillows are best. When sitting, sit up straight, ideally with a slight curve forward in the small of your back, shoulder blades pulled back slightly, and your head resting above your shoulders. This position will minimize neck strain. When driving, reading, and working at a computer, do so with your head aligned with your pelvis rather than twisted and have the working height such that your head is in a neutral position. When standing keep your head above, rather than forward of your shoulders. When walking or running, work toward your gait (the swing of your legs, arms, and spine) being symmetrical from side to side. When physically training avoid “lifting with your neck muscles” as it is usually best to keep them relaxed.

All of these habits will minimize strain on your neck, improve strength, and promote flexibility and symmetry. These habits will, also, help you better benefit from the work your physician using applied kinesiology does to balance your neuromuscular systems.

Is there something I can do to help my knee pain and make my knees healthier?

Knee pain is commonly caused or aggravated by how you walk. Most people use a pulling gait when walking where the leg is swung out ahead and the leg is straight as the heel strikes on the ground hard. This type of gait causes constant micro trauma throughout the body and especially the hip and knee. Instead, use a push off gait where you push yourself forward with your back foot and land on the forward leg with a less harsh heel strike and a slightly bent knee and hip. Once you get used to this way of walking you will be surprised how much better your knees feel!

Learning to properly squat can do wonders for your knees. Have your doctor or physical trainer/therapist teach you how to accomplish a full bodyweight squat.