

Focus on Indicators When Adjusting the Lower Extremity

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The following is a brief explanation of why my primary focus is on indicators and not symptomatology while adjusting the lower extremity. Like most chiropractors, when I examine and adjust the joint complexes of the spine and extremities, I am looking for an indicator or indicators; commonly restricted range of motion. Symptomatology is taken into account, but it is not the primary focus.

Beyond Symptomatology

On a regular basis, I find joints that have indicators, but minimal or no symptomatology. I perform the appropriate adjustment and seemingly, like many others I have taught, get very good clinical results.

Neurological research has presented a model that provides an explanation regarding why chiropractors achieve positive clinical results when patients' extravertebral articulations are examined and appropriately adjusted. The model, known as *dysafferentation*, gives an explanation of why a variety of symptom complexes not usually associated with altered joint function are reduced or eliminated.

D.D. Palmer was well-aware of the clinical significance of adjusting extravertebral articulations, particularly the feet. In his 1910 book, *The Chiropractor's Adjustor: The Science, Art, and Philosophy of Chiropractic*, Palmer states, "Why adjust in the lumbar for displacements in the joints of the foot?" Although Palmer's explanations are considered crude by today's standards, the clinical significance of extremity / extravertebral adjusting cannot be understated.

Understanding Why: Dysafferentation

A deeper look at the model of dysafferentation gives some insight as to why I recommend the examination of extravertebral articulations and the appropriate adjustments based on indicators, not symptomatology.

This explanation deals with the two main types of sensory receptors: mechanoreceptors (types 1, 2 and 3) and nociceptors (type 4) that innervate the joint structures. When mechanoreceptors depolarize/fire, they inhibit the firing of nociceptors at a level of the spinal column. This can have an inhibitory effect on pain and a global effect on the body by inhibiting, to some degree, the sympathetic nervous system.

In a cumulative way, the excessive nociceptive input reflexively activates the sympathetic nervous system. Physical exam and autonomic indicators such as bilateral blood pressure, heart rate, respiratory rate, cortisol levels, and a multitude of other indicators can be affected.

Since the inhibition of the sympathetic nervous system is facilitated via the chiropractic adjustment, this explains why our patients, in general, feel more relaxed after an adjustment than

before.

If we look at the potential symptomatology created by excessive nociceptor firing, dysafferent input can and does produce a variety of symptoms one would not usually associate with dysfunctional joints. Kabell authored research that states, "Nociceptor activity reflexively activates the sympathetic nervous system...". Research by Nansel and Szlazak explains that nociceptive input from dysfunctioning joints can cause symptoms such as sweating, pallor, nausea, vomiting, abdominal pain, sinus congestion, dyspnea, cardiac palpitations, and chest pain that mimics heart disease.

Protocols for Evaluating and Adjusting the Lower Extremity

The adjusting protocols I developed for the lower extremity are the result of watching functional motion X-rays of the feet, knees and hips. Utilizing a version of bone and skin markers, I observed patterns, especially in the feet, where most subjects exhibited pronation. I found that an extremely predictable direction of movement occurs in the typical pronated foot from heel strike to toe-off, the stance phase of the gait cycle. I then developed / utilized adjustments to address the direction of subluxation for the navicular, cuboid, cuneiforms, metatarsal heads, talus, calcaneus, and fibula.

We know the functional foundation of the human frame is the feet. Bilateral and asymmetrical foot pronation is quite common and creates an imbalance of forces throughout the human structure. This can be a huge component of low back pain, along with foot, knee and hip symptomatology. Therefore, I use a functional digital foot scan to measure the feet three-dimensionally.

My clinical experience has taught me that when the three arches of the feet are supported and the feet move functionally in a normal or optimal range of motion, the best clinical results are achieved. In order to manage my patients effectively and balance the structural loads, I utilize stabilizing orthotics with three-arch support.

Many conditions cause symptomatology in the feet, such as plantar fasciitis, heel spurs, bunions and inversion sprains. But the typical chiropractic patient does not exhibit foot symptomatology. Appropriate adjusting and stabilization of the feet will provide the structural foundation required for optimal balance.

My protocols have a specific order. I adjust the spine first; then based on indicators, I appropriately adjust the feet, knees, hips, wrists, elbows and shoulders. This approach is more time-consuming than many protocols, but it addresses the body globally, along with specific spinal and extremity symptomatic relief.

Resources

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