

CHIROPRACTIC & HEALTH: A Natural Connection

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© Dr. James L. Chestnut M.Sc, D.C., C.C.W.P.

Renowned Chiropractic Neuroscientists Discover Why Chiropractic Adjustments So Uniquely Effective

KEY FINDINGS

“Based on our research findings we have proposed that areas of spinal dysfunction represent a state of altered afferent input [input from the joints and tissues into the brain] which may be responsible for ongoing central [brain] plastic changes.”

“Furthermore, we have proposed a potential mechanism which could explain how high-velocity, low-amplitude spinal manipulation, also known as spinal adjustments, improve function and reduce symptoms.”

“We have proposed that altered afferent feedback from an area of spinal dysfunction alters the afferent “milieu” into which subsequent afferent feedback from the spine and limbs is received and processed, thus leading to altered sensorimotor integration (SMI) of the afferent input, which is then normalized by high velocity, low-amplitude manipulation.”

CLINICAL IMPORTANCE

Key Concepts:

The neurological input into the brain from receptors in a motion segment or joint, and the muscles and tendons associated with that joint, is fundamentally important to the ability of the brain to perceive, move, and control that motion segment or joint, and to whether or not that joint is painful or pain-free.

When this input is altered from a lack of proper joint motion, so too is the ability of the brain to perceive, move, and control that joint, and this can also lead to pain. Garbage in, garbage out as the expression goes.

It has been known for decades that chiropractic adjustments could restore proper segmental motion and reduce pain and stiffness. However, until the recent work of these brilliant neuroscientists, who are also chiropractic researchers, it was not known whether chiropractic adjustments could also improve the neurological input to the brain, improve the integration of this information in the brain, and improve the output and motor control of joints and muscle by the brain.

Thanks to over a decade worth of painstaking research, we now know that chiropractic adjustments do improve sensory input, sensorimotor integration or brain processing of that input, and motor control.

We also now know that this can improve function and thus the ability to perform activities of daily living, and also to reduce pain and other symptoms thus providing a significant improvement in quality of life.

Take-Home Points

The era of having to believe in chiropractic is over. Chiropractic science is as valid as medical science or dental science and the evidence for chiropractic adjustment far exceeds any other intervention with respect to restoring function, reducing symptoms, and improving quality of life.

When you follow the science - it leads you toward chiropractic adjustments!

Haavik and Murphy (2012) The role of spinal manipulation in addressing disordered sensorimotor integration and altered motor control. J Electromyogr Kinesiol 22(5):768-76.