

CHIROPRACTIC & HEALTH

A Natural Connection

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Chiropractic Adjustments Restore Sensory Input, Improve Brain Processing and Motor Control

Haavik & Murphy (2010) Altered Central Integration of Dual Somatosensory Input After Cervical Spine Manipulation. *Journal of Manipulative and Physiological Therapeutics* 33 (3) 178-188.

QUOTE BOARD:

“The effectiveness of spinal manipulation for improving spinal function and relieving acute and chronic low back and neck pain has been well established by outcome-based research. However, the mechanism(s) responsible for the effective relief of pain and restoration of functional ability after spinal manipulation are not well understood.”

“This study suggests that cervical spine manipulation may alter cortical integration of dual somatosensory input. These findings may help to elucidate the mechanisms responsible for the effective relief of pain and restoration of functional ability documented after spinal manipulation treatment.”

“There is a growing body of evidence suggesting that the presence of spinal dysfunction of various kinds has an effect on central neural processing. Several recent studies indicate that spinal manipulation of dysfunctional cervical joints leads to alterations in central processing and sensorimotor integration.”

“Episodes of acute pain, such as after an injury, may initially induce plastic changes in the sensorimotor system. These changes could include dysfunctional motor control of spinal joint segments, that is, the manipulable lesion that chiropractic physicians and other manipulative therapists treat.”

Key Concepts:

When, either through injury or lack of regular use, joints and associated tendons, ligaments, muscles, and nerves become inflamed, undergo scar tissue deposition, lose proper range of motion, and begin to degenerate, the signals sent from these tissues to the sensory-motor areas of the brain become altered.

This altered sensory information leads to altered integration of sensory processing in the brain which leads to altered motor control, reduced strength, coordination, and balance, increased chance of injury, reduced ability to perform activities of daily living, increased pain, stiffness, and discomfort, and reduced quality of life.

Key Take Home Points:

Chiropractic adjustments/manipulations restore motion and or alignment, restore healthy nerve flow (and blood flow), restore proper muscle recruitment and coordinated movement, resolve pain, and restore the ability to comfortably perform activities of daily living.

Chiropractic is not magic, it is science delivered through the art of a skilled practitioner. The results may seem magical, especially after suffering for a long time and/or receiving care that simply has no chance of restoring segmental motion, neurophysiological function, and quality of life.

The truth is there is no magic involved – just the highly refined skill of a caring chiropractor and valid evidence from chiropractic science. It is actually very simple. Segmental motion is the foundation of neuromusculoskeletal health, neuromusculoskeletal health is the foundation of overall health and quality of life, and chiropractors are the world’s leading experts in finding and correcting restricted segmental motion.

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