

CHIROPRACTIC & HEALTH

A Natural Connection

December 2020

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Study Shows Chiropractic Spinal Manipulation Reduces Pain Signals Sent to Brain

Randoll, C. et al. (2017) The Mechanisms of Back Pain Relief by Spinal Manipulation Relies on Decreased Temporal Summation of Pain. *Neuroscience*. 349:220-228

QUOTE BOARD:

"This is the first study that provides evidence for SM [chiropractic spinal manipulation] induced inhibition of temporal summation of back pain."

"In addition, a light mechanical stimulus could not elicit significant hypoalgesic effects, in contrast to SM [chiropractic spinal manipulation]."

"This extends results from previous studies showing that the relief of back pain by SM [chiropractic spinal manipulation] partly relies, at least in part, on specific hypoalgesic or antinociceptive processes within the spinal cord."

Conclusion: "These results indicate that SM [chiropractic spinal manipulation] produces specific inhibitory effects on temporal summation of back pain, consistent with the involvement of a spinal anti-nociceptive mechanism in clinical pain relief by SM."

Key Concepts:

When tissues are damaged or inflamed or irritated, they send signals called nociception to the areas of the brain for pain.

When tissues do not heal, and become chronically inflamed, they send chronic nociceptive signals to the brain resulting in chronic pain.

When the neurons or nerve cells along the nociceptive pathways are stimulated repeatedly or simultaneously from several inputs, these signals become summated or added together and cause stronger pain signals to the brain creating stronger feelings of pain.

Research is now clear that pain medications like Tylenol and Advil and muscle relaxants and even opioids are ineffective to resolve back pain and also cause dangerous side-effects.

Key Take Home Points:

The reason pain medications are ineffective is because they do not heal the tissues that are inflamed and causing the nociceptive signals to go to the brain and cause pain.

The reason chiropractic spinal manipulation is effective is because spinal manipulation stimulates movement receptors called mechanoreceptors that send signals called proprioception that inhibit the nociceptive signals and result in less pain signals to the brain and less feelings of pain.

Most importantly, chiropractic spinal manipulation restores proper joint movement, helps heal tissues, and restores proper neuromuscular function. This results in less pain signals sent to the brain areas for pain and more healthy movement signals sent to the brain areas for healing, proper neuromuscular function, and greater feelings of comfort in both body and mind - better physical and emotional moods!