

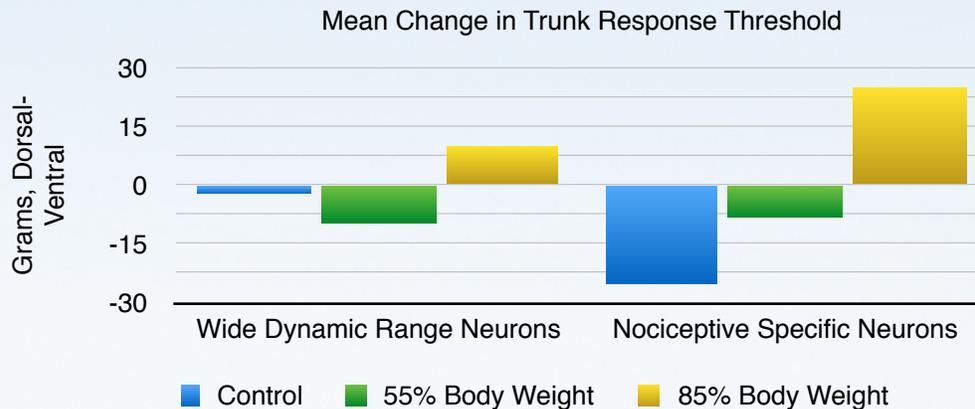


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Chiropractic & Rehabilitation

Effect of Spinal Manipulation Thrust Magnitude on Trunk Mechanical Activation Thresholds of Lateral Thalamic Neurons

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This 2014 ACCRAC Award winning paper examined the possible underlying mechanisms of the high-velocity low-amplitude spinal manipulation. Previous studies have quantified the therapeutic benefits of facet gapping during a chiropractic manipulation; however this study is the first to investigate thrust magnitude and supraspinal neuron response.

Altering the threshold levels of the nociceptive specific lateral thalamic neurons is of clinical importance because it provides the opportunity for nervous system facilitated pain relief through manipulation. The study suggests that a minimal thrust magnitude may be necessary to elicit the optimal response. This may be why chiropractic manipulation has outperformed mobilization for the reduction of perceived pain in other studies. The interaction between thalamic response and thrust magnitude will be a topic of keen interest as our research continues to evolve.

“Relative to control, the 85% body weight thrust magnitude HVLA-SM significantly increased mechanical thresholds of lateral thalamic nociceptive specific neurons to dorsal-ventral mechanical testing of the trunk.”

“Several clinical studies indicate that spinal manipulation alters central processing of mechanical stimuli evidenced by increased pressure pain thresholds and decreased pain sensitivity in asymptomatic and symptomatic subjects following manipulation.”

“...it was demonstrated that the lateral thalamus and PAG interact reciprocally at short latencies and that stimulation of either structure relieved pain to various degrees.”

We believe in creating a healthier community. We believe patients have better outcomes when physicians work together.
Let's build a healthier tomorrow.