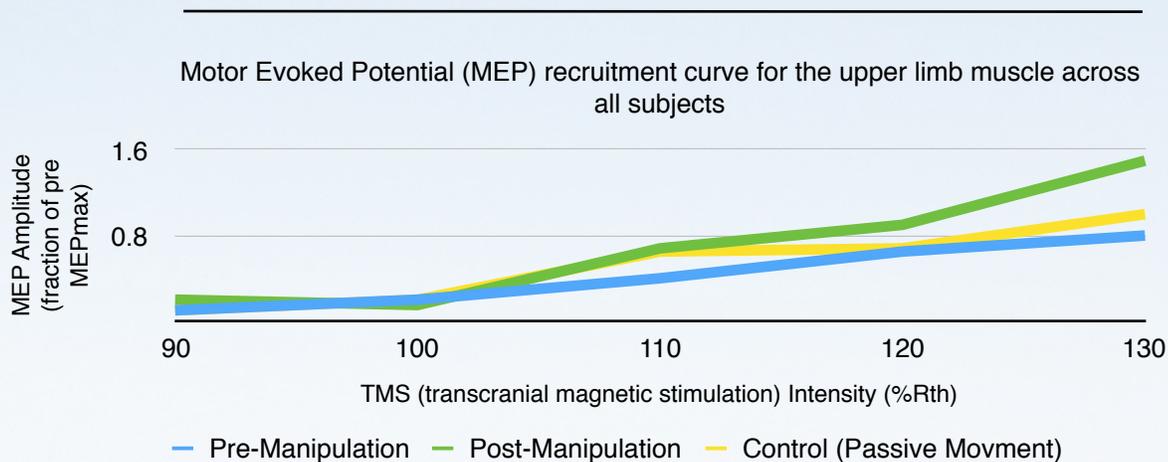




Impact of Spinal Manipulation on Cortical Drive to Upper and Lower Limb Muscles

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While spinal manipulation is considered a primary conservative treatment option for low back pain, neck pain, and headaches; emerging research has also demonstrated central neural plastic effects post-manipulation.

Manipulation can attenuate cortical somatosensory evoked potential responses, improve proprioceptive processing, and provide motor control alterations. These responses appear to have a significant impact on central cortical processing and may indicate the use of spinal manipulation for a variety of special patient populations.

The researchers also noted individuals who are recovering from muscle degrading dysfunctions (such as stroke), or high-level athletes, may benefit from increased strength as a result of cortical drive after an applied spinal manipulation. I will continue to update you as new research comes to light.

“...spinal manipulation leads to short term changes in cortical excitability, as measured by a significantly larger MEPmax for TMS induced input output curves for both an upper and lower limb muscle, and with larger amplitudes of MRCP component post manipulation.”

“...this increased excitability occurs at the cortical level due to the increased amplitude of the MRCPs (movement related cortical potential amplitudes) following spinal manipulation. These findings are consistent with previous findings that have suggested increases in strength following spinal manipulation were due to descending cortical drive and could not be explained by changes at the level of the spinal cord.”

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

Dr. Brian L. Baldia, DC
421 E. Main Street, Endicott, NY 13760
607.321.7674 CHIROsportandspine.com