



Brampton: 220 Wexford Road Unit 2 Brampton, ON L6Z-4N7

Ph: (905) 840-WELL Fax: (905) 840 -LIFE

www.drjustineblainey.com

www.blaineywellness.com

Decreased Muscle Spasms and Chiropractic Care

By Mark Studin and William Owens | September 2010

There have been many discussions regarding the effects of the short and long term benefits of a chiropractic adjustment. The ultimate focus is a change in the biomechanics and therefore, the physiology surrounding the affected area of the spine. Although there is a significant amount of evidence showing the effects of spinal adjusting on the central nervous system, this study concentrated on the effects on the peripheral nervous system (outside of the brain and spinal cord) and paraspinal musculature, specifically of the effects of spinal adjusting on the paraspinal musculature in the mid-lower back (thoracic and lumbar spines).

The authors stated, "Many chiropractors palpate for tight muscle bundles in the paraspinal musculature as one indication of where to adjust. It seems reasonable to expect resting muscle activity, which can be monitored by an electromyogram (nerve test to determine muscle firing, and resultant spasm) to be abnormally high in the region of a tight muscle bundle" (DeVocht, Pickar, & Wilder, 2005, pp. 465-466). They went on to state, "In this descriptive study, we have further explored the phenomenon of reduced electromyogram (muscle firing and resultant spasms) activity after [spinal adjusting] to better understand the immediate effects of [spinal adjusting]" (DeVocht et al., 2005, p. 466).

The results of the study showed, "With electromyogram recordings obtained from 2 paraspinal muscle sites on each participant (except for one), 27 of the 31 pre-treatment resting electromyogram levels decreased after treatment. During the 5 to 10 minutes of the treatment protocol, distinct changes (both increases and decreases) in the level of muscle activity were often observed" (DeVocht et al., 2005, p. 470). **Ultimately the study revealed, "... the reduction of resting electromyogram activity after [spinal adjusting that we observed in the greater majority of cases is consistent with and supportive of the commonly held perception that tight muscle bundles are associated with low back pain and that they can be alleviated by [a chiropractic spinal adjustment]"** (DeVocht et al., 2005, p. 470).