



## CHIROPRACTIC CARE MAY BOOST STRENGTH, MUSCLE FUNCTION, AND PREVENT FATIGUE

New research into the effects of chiropractic care suggests that it may have an important role to play in maximising sporting performance and aid recovery from a range of conditions where muscle function has been compromised.

The New Zealand College of Chiropractic's Centre for Chiropractic Research has recently published a study in the journal *Experimental Brain Research*<sup>1</sup> which demonstrates that following a full spine chiropractic adjustment session there was an increase in the subjects' ability to contract one of their leg muscles.

The study shows an increase in muscle electrical activity readings of almost 60% and a 16% increase in absolute force measures. There was also a 45% increase in the 'drive' from the brain to the muscle (the degree to which the brain can activate that particular muscle) and a small, but significant, shift in the H reflex curve (a neurophysiological measure of spinal cord excitability).

Dr Heidi Haavik, chiropractor and Director of Research at the NZCC says: 'This study is the first to indicate that chiropractic adjustments of the spine can actually induce significant changes in the net excitability for the low-threshold motor units. The results of the study also indicate that spinal adjustments can prevent fatigue, so we recommend chiropractic care to be a part of medical treatment for patients that have lost tonus of their muscles or are recovering from muscle degrading dysfunction such as with stroke or orthopaedic operations.

'The results suggest that the improvements in maximum voluntary contractions following the chiropractic adjustment session are likely attributed to the increased descending drive (i.e. from the brain) and/or modulation in afferent input. These results may also be of interest to sports performers and we have recommended a similar study be conducted in a sports population.'

This work provides further evidence of the capacity of chiropractic care to address aspects of sensorimotor integration. The New Zealand College of Chiropractic's Centre for Chiropractic Research is at the forefront of this ground-breaking neurophysiological research and is achieving these results faster due to the new Spinal Research Partnership Scheme.

The study was funded by a recent grant partnership between Spinal Research (formerly Australian Spinal Research Foundation), The New Zealand Hamblin Trust and the New Zealand College of Chiropractic. The study involved a collaboration between the Centre for Chiropractic Research and a world-renowned neurophysiologist, Professor Kemal Türker, from the School of Medicine at Koc University in Istanbul, Turkey.

#### References:

1 Niazi IK, Türker KS, Flavel S, Kinget M, Duehr J & Haavik H. (2015) Changes in H-reflex and V waves following spinal manipulation. *Experimental Brain Research*. In press. DOI: 10.1007/s00221-014-4193-5

URL link: <http://link.springer.com/article/10.1007/s00221-014-4193-5>

-Ends-

Further Information:

Dr Heidi Haavik, Chiropractor 021 301 202 or [heidihaavik@gmail.com](mailto:heidihaavik@gmail.com)

Peter Boyes 027 554 0500 or [peter@boyespr.co.nz](mailto:peter@boyespr.co.nz)

### **Contacts**

Dr Heidi Haavik  
021 301 202  
[mailto: heidihaavik@gmail.com](mailto:heidihaavik@gmail.com)  
Peter Boyes  
0275 540 500  
[mailto: peter@boyespr.co.nz](mailto:peter@boyespr.co.nz)