

The abstract from Mr. Craig Stein's Honors thesis has now completed at the University of Western Australia (Perth, Australia). A good result and very encouraging changes in muscle activation in a specific group of back pain sufferers, both immediately and after a series of sessions with the ATM2. The researchers of this study are currently in the process of writing a manuscript for a peer review and publication.

After reading the actual abstract in the attached document, you will want to read the following questions & answers relating to the study provided by Professor Peter Hamer, Ph.D., Head, School of Physiotherapy, The University of Notre Dame Australia:

1. How many people were there in Group 1?

9 active sports people with chronic back pain into extension and lateral flexion and/or rotation

2. How many people were there in Group 2?

9 active sports people who did not have low back pain

3. What was the exercise program for Group 1?

The only exercise program for those in Group 1 was use of the ATM2 3 x /week for 3 weeks

4. How were "muscle activation patterns" measured?

Surface electromyography of trunk and abdominal musculature was collected at 1000Hz and analysed using a linear envelope of the signal to determine onset times of musculature relative to the onset time of the anterior deltoid during a bilateral fast arm flexion task (commonly used to create a perturbation of the trunk in upright standing).

5. How was multifidi size measured?

The diameter of the multifidi at the level of spinous process of L4 was measured using Diagnostic Ultrasound Imaging.

6. What does "significant differences were evident over time in mean trunk muscle activation patterns?"

The results were analysed using a repeated measures Analysis of Variance (ANOVA) with repeated measures across time. This analysis showed statistically significant reduction of the activation times of the muscles from before the ATM2 program to completion. The onset times moved closer to the onset times observed in the control (healthy) group.

Not much more can be said at this stage without prejudicing release of information in a journal.