

Low Back Pain, Mechanical Neck disorders and Spinal Stabilization Exercises

At Advantage Physiotherapy we are committed to providing treatment based on the highest quality of research that is available. This newsletter is a compilation of the latest research available regarding low back pain, mechanical neck disorders and spinal stabilization exercises.



The pelvic tilt is out and lumbar stabilization is in.

An episode of acute low back pain resolves in 2-4 weeks for 90% of patients. Unfortunately 60-80% of people will have a Re-occurrence within the first year

Long- Term Effects of Specific Stabilizing Exercises for First-Episode Low Back Pain (Hides et al, 2001, Spine Vol 26(11), pp E243-E248)

Methods: 39 patients with first-episode low back pain were medically managed and randomly allocated to either a control group or specific exercise group. Medical management included advice and use of medications. Intervention consisted of exercises aimed at rehabilitating multifidus in co-contraction with the transverse abdominus.

Conclusion: One year after treatment, specific exercise group re-occurrence was 30%, and control group was 84% ($P < 0.001$). Two to three years after treatment, specific exercise group re-occurrence was 35%, and control group was 75% ($P > 0.01$)

Lumbar stabilization prevents the re-occurrence of low back pain in first time episodes of low back pain.

Multifidus Muscle Recovery is not automatic after Resolution of Acute, First-Episode Low Back Pain (Hides et al, 1996, Spine Vol 21(23), pp2763-2769).

Methods: 41 patients were randomly assigned to a medical treatment only group or a medical treatment and specific localized therapy group. Outcome measures for both groups included 4 weekly assessments of pain, disability, range of motion, and size of multifidus cross sectional area. Patients were reassessed at a 10 week follow-up examination.

Conclusion: Multifidus recovery was not spontaneous on remission of painful symptoms in patients in the control group. Muscle recovery was more rapid and complete in patients in the treatment group who received exercise therapy ($P = 0.0001$).

Lack of localized muscle support may be one reason for the high recurrence rate of low back pain following the initial episode.

At Advantage Physiotherapy we are proud that we book assessments for one hour and treatments for thirty minutes for more one on one time with the physiotherapist. Our treatment is goal oriented and patient centered.



The Neck Needs Exercise as Well.

A Cochrane Review of Manipulation and Mobilization for Mechanical Neck Disorders (Gross et al, 2004, Spine Vol 15; 29(14), pp1541-8.

Methods: Systematic review of randomized trials assessed whether manipulation or mobilization relieve pain or improve function/ disability, patient satisfaction, and global perceived effect in adults with mechanical neck disorders.

Mobilization and/or manipulation when used with exercise are beneficial for persistent mechanical Neck disorders with or without headache done alone, manipulation and/ or mobilization were not beneficial.

Active Neck Muscle Training in the Treatment of Chronic Neck Pain in Women: A Randomized Controlled Trial (Ylinen et al 2003 Journal of American Medical Association Vol 289(19) pp2509-2516)

Methods: 180 Female office workers were randomly allocated to one of two training groups or a control group. The endurance training group performed dynamic exercises. The strength training group performed high-intensity isometric neck strengthening and stabilization exercises. Both training groups performed dynamic exercises for the shoulder and upper extremities with dumbbells. All exercise groups were advised to do aerobic and stretching exercises regularly, three times per week.

Results: Both training groups (12 months) were effective methods for decreasing pain and disability in women with chronic, nonspecific neck pain, as compared to the control group.