

Exercise and Low Back Pain

Exercise and Low Back Pain

Many studies over the years have looked at the effect of exercise on low back pain (LBP). The results of these studies shows some benefit of general fitness exercise or strength training. In this study, Physical Therapists from Greece report on the effect of aerobic exercise on patients with chronic LBP.

Twenty (20) patients with LBP lasting more than six months were included in the study. Half were put in a high-intensity aerobic exercise group that lasted 12 weeks. The other half (control group), received 12 weeks of passive therapy. The control group did not do any physical activity.

Everyone was tested before and after treatment for pain and cortisol levels. Pain was measured using a special questionnaire. Blood was drawn to measure *cortisol* levels.

Cortisol is a hormone known to be part of the human stress response. It increases blood pressure and affects mood. Higher levels of cortisol are linked with a greater sense of *alertness*. Cortisol is known to rise in people who are healthy after moderate-to-high intensity exercise.

The authors report that high-intensity aerobic exercise did decrease pain and disability. The patients in the exercise group also reported improved mood but there was no change in their cortisol levels. There was no change in pain or cortisol levels in the control group.

The Physical Therapists who conducted this study were hesitant to draw any firm conclusions just yet. The small size of their study and short-term follow-up suggest further study is needed.

Dimitris Chatzitheodorou, et al. A Pilot Study of the Effects of High-Intensity Aerobic Exercise Versus Passive Interventions on Pain, Disability, Psychological Strain, and Serum Cortisol Concentrations in People with Chronic Low Back Pain. In *Physical Therapy*. March 2007. Vol. 87. No. 3. Pp. 304-312.