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Keeping Healthy with OPTM Sports Therapy

Why Stabilization Exercises Don't Work

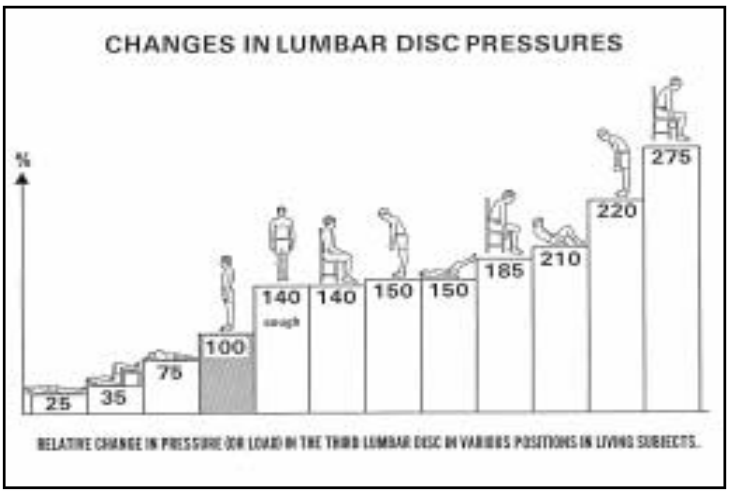
Stabilization exercises have become common to the prescription for treating low back pain. Strengthening the muscles of the mid-section and lower extremities is the keystone to these programs. The perspective of this approach to treatment has become very mechanical and disregards the neurophysiology of motor control. Simply strengthening the muscles has very little carry-over effect to controlling the spine during activities. People must be able to recruit appropriate muscles automatically for protective postures.

The cerebral cortex is very active when we learn a novel task. Neuro-motor pathways must be developed to learn the new tasks. Initially when these pathways are developing, these tasks can be performed if they remain the primary focus of the individual. However, the dynamic control of the trunk is optimally a background postural task and is performed while other activities are the primary focus. Thus, often the carry-over from an exercise program to functional activities may be deficient because the transition to control of the postural activities has not been successfully transferred to sub-cortical centers in the basal ganglia, which control automatic movement.

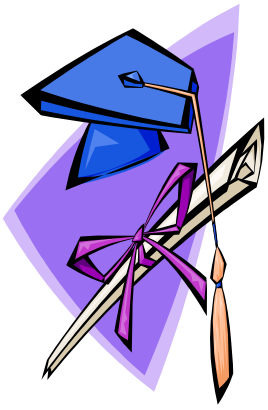
Postural control must become an automatic movement to effectively control the body during activities. Initially, specific patterns of motor recruitment are learned. This involves focused recruitment of appropriate muscles in the appropriate sequence, beginning at the competence level of the individual. Some people have greater motor awareness than others, but we must test for, and not assume a person's level of motor competence. When these basic patterns are developed, they can be incorporated into more complex patterns of movement. This begins the transferal of basic recruitment control to the sub cortical centers. The final step is to incorporate the basic postural activities into functional activities such as lifting, and carrying. These activities become the primary focus and the postural control becomes a background activity.

Each phase takes thousands of repetitions and several weeks of practice before the activity becomes automatic. Often, we expect results too soon without considering basic neurophysiological principles of motor learning. People should be informed of the length of time and amount of practice this takes so they will have realistic outcome expectations and perservere in their program.

At OPTM, we are well aware of the principles of motor learning. We realize that the development of dynamic control is not just giving a person a list of exercises, but to train each individual in the proper sequence, at the proper level while educating them about the process.



Paul Christensen DPT



OPTM is happy to announce that Paul Christensen has recently obtained a doctorate degree in physical therapy. This additional degree was conferred at the completion of a two year program at the University of Southern California.