

Caring for your Spine

Spinal Exercises

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There is a lot each one of us can do to improve spine-health and protect the intricate balance of our backs. One of the most potent resources is regular exercise. Regular exercise promotes cardiovascular fitness, helps prevent bone loss, helps to maintain optimum body weight, and leads to strengthening of spinal muscles. Regular exercise helps reduce unwanted weight that can place undo stress upon the back. Regular exercise also reduces the risk for acquiring a variety of diseases. There are numerous benefits of exercise, a comprehensive list that is too long to present here. Exercise will help stretch and tone muscles of the back as well as strengthen and improve the endurance of back muscles.

Regular exercise is probably the single most important thing one can do to promote a healthy back (spine). There are some general rules of thumb that should be followed to maximize the benefits of regular exercise. These considerations are: 1) start an exercise program slowly and gradually increase the demands on the spine over time. Always choose back-friendly exercises or those activities that are easy on the back. Avoid high-risk moves such as uncontrolled twisting, quick stops and sudden starts. Avoid high impact activity on a hard surface. Do not perform exercises that require exaggerated stretching of back muscles. Always reinforce an exercise program with healthy eating habits and a diet high in nutrient value. There is no diet that has proven to completely reverse the source of back pain such as arthritis or osteoporosis. However a diet which is low in nutrient value and high in calories may contribute to the development of spinal problems.

General Considerations for Back Exercises

Exercise needs to be performed on a regular basis. An exercise program should be progressive. Appropriate exercise should not lead to progressive discomfort or pain. Always start slowly. Initially, the back muscles may be weak and deconditioned, rendering you more susceptible to injuring the back. When beginning a back conditioning program start gradually and progress slowly allowing the tissue to respond favorably thus becoming more capable of performing work.

Always choose back-friendly exercises. This refers to exercises that are low impact and are easily controlled. For example, swimming and other water exercises places minimal strain onto the tissues of the back. Use of a stationary bike or elliptical trainer provides less jarring impact than running on a hard surface. Always warm up with controlled stretching prior to participating in athletic/sporting events. Avoid high risk positions and activities.

A gradual return to everyday activities is a form of exercise and is important for full recovery after a prolonged period of back pain.

Core Strengthening/Training

A loss of protective muscular function around an area of the spine renders the spine to injury. There are many states of abnormal muscle function that can lead to reduced protection of the spine. The causes include nerve damage with a loss of connection to muscle (muscle denervation), deconditioning due to disuse of a muscle and incoordination of muscle firing (contraction) patterns. A loss of muscular protection may occur on one side (unilateral) or on both sides of the spine. When it occurs on both sides (bilateral), it may cause instability. The core muscles refer to the muscles that cross from your ribs across the waist to the pelvis and support you in an upright position. This includes the deep muscles of the spine and the abdominal muscles. There are many popular forms of exercise that offer core strengthening. Examples include yoga and Pilates.

There are transverse and sagittal core strengthening exercises. The level of contraction required for core stabilization is minor compared to conventional strengthening exercises. It is important to understand the concept of muscle control versus muscle strengthening. The maintenance of low back (lumbar) stability during the performance of arm, leg or trunk movements recruits core muscles. The use of an unstable base such as a Physioball or balance board will help recruit core muscles in order to provide the necessary stability to perform extremity or abdominal exercises.

Individuals who have chronic low back pain that does not respond to common muscle strengthening exercises may benefit from this more precise method of exercise. Most low back patients lack the muscular control to perform an exercise in a lying, sitting, and standing position and are more likely to succeed with proper cueing by a physical therapist. Core spinal stabilization exercise programs may require a one-on-one approach.

Mobilizing Exercises

Some exercises are used for improving and maintaining joint and soft tissue mobility. These types of exercises are typically comprised of gentle and controlled movements or positions. They can be very helpful with most types of back conditions. Mobilizing exercises should be performed within a pain-free range. There are special exercises that can be performed to restore or maintain nerve root movement at the spine.