

Central Spinal Stenosis: It doesn't have to stop you
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Lumbar central spinal stenosis, or narrowing of the spinal canal within the lumbar vertebra, is a degenerative process that often occurs when the nucleus pulposus becomes less viscous, causing narrowing of the intervertebral disk. This narrowing leads to a shifting of the vertebral bodies down and back creating an increased lordosis. This lordosis leads to a narrowing of the central canal as well as the lateral foramen. The narrowing may also occur due to bulging disks or osteophytes within the central canal.

It has been shown that positional changes to open the central canal may help relieve symptoms of pain, numbness or burning down the legs that occurs with walking or standing. However, the slow degenerative changes that cause this condition often make it difficult for the patient to maintain or to even find a position of relief. This is where physical therapy can offer treatment intervention.

With a complete physical therapy evaluation, a therapist can create a treatment plan that will be appropriate for the patient dependent on the physical impairments. These treatments may include myofascial release, therapeutic exercise, manual therapy, or aquatic therapy.

In outpatient - land based therapy; the patient's treatment will focus on stretches, postural alignment, spinal range of motion, core stabilization and education on his condition. Postural alignment allows the patient relief of symptoms while standing or walking by creating a decreased lumbar lordosis and therefore opening the central spinal canal and lateral foramen. This allows for more space for the nerves and the end of the spinal cord. Core stabilization and exercises increase the strength of not only the large back muscle groups and abdominals, but also small muscle groups such as that of the multifidus. This retraining aids returning proprioception of the spine and teaches the patient what positions are comfortable and pain free during activity. This allows the patient to control symptoms, and increase muscle control and strength around the joints helping with shock absorption of the spine.

Modification of activities and education of proper body mechanics allow for decreased compression of the nerves in the lateral foramen and central canal. This decrease in compression will lead to a decrease in pain and tingling down into the lower extremities.

Aquatic therapy may be used for patients who have difficulty with weight bearing activities for extended periods of time, like walking. The decreased stress and compression through the spine can allow for the patient to perform strengthening and core stabilization exercises for longer periods of time. The increased strengthening and stretching capabilities in the water make it easier for the patient to increase endurance and independence out of the water.

Spinal stenosis is definitely a condition that plagues the elderly and will continue to become more prevalent as life expectancy increases. Physical therapy services such as exercise, positioning, aquatics, manual techniques, stretching and education can improve the quality of life making it more productive and active for those with this condition.