

Lumbar Spinal Stenosis

Lumbar spinal stenosis involves narrowing of the spinal canal, which extends through the center of the spinal vertebrae, in the lower back area.

Lumbar spinal stenosis may cause pressure on the nerve roots that branch out from the spinal cord, which can result in pain, tingling, numbness, muscle fatigue, and, if severe, weakness in the legs.

What Causes Lumbar Spinal Stenosis?

Lumbar spinal stenosis typically results from degenerative changes in the spine associated with aging, including formation of bony spurs (osteophytes), thickening of spinal ligaments, and degeneration of the disks between the vertebrae. These processes can result in loss of space between the vertebral bones and bulging of the disk into the spinal canal. Other spinal conditions may worsen lumbar spinal stenosis, such as displacement of a vertebra over an adjacent vertebra (spondylolisthesis) and degenerative curvature of the spine (scoliosis).

Lumbar spinal stenosis is common, affecting approximately 11% of older adults in the US. While studies have found that approximately 20% of adults older than 60 years have evidence of spinal stenosis on imaging scans, more than 80% do not experience symptoms and therefore do not need treatment.

Symptoms of Lumbar Spinal Stenosis

Common symptoms of lumbar spinal stenosis are pain and aching extending from the lower back to the buttocks and often to one or both legs. Sometimes the pain is accompanied by numbness or tingling in the lower legs or feet. Pain due to lumbar spinal stenosis typically increases with standing or walking and is relieved with sitting or leaning forward. Due to gradual worsening of pain over time, some patients may develop severe limitations in activity.

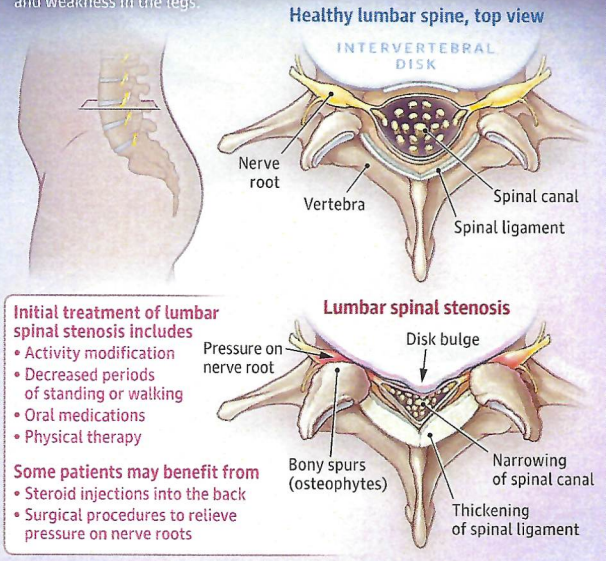
Diagnosis of Lumbar Spinal Stenosis

Clinicians usually diagnose lumbar spinal stenosis based on a patient's symptoms and physical examination findings. Imaging scans are often used to confirm the diagnosis, including an x-ray scan to evaluate the alignment of the spinal bones and magnetic resonance imaging (MRI) to visualize the spinal cord, spinal nerve roots, joints, disks, and ligaments. Computed tomography (CT) is an alternative imaging mode for patients who are unable to undergo MRI.

Treatment of Lumbar Spinal Stenosis

Initial treatment of spinal stenosis typically includes activity modification with decreased periods of standing or walking, oral medications such as nonsteroidal anti-inflammatory drugs (NSAIDs), if tol-

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erated, and physical therapy. Epidural steroid injections into the affected area of the back may produce modest pain relief, but the benefit generally lasts less than 3 weeks, and there is a small risk of serious side effects such as infection or bleeding.

Surgical procedures can be performed for lumbar spinal stenosis to remove some of the bone, ligament, or disk tissue that is pressing on lumbar nerve roots. Surgery for lumbar spinal stenosis typically reduces pain and improves overall function in carefully selected patients whose symptoms fail to improve with nonsurgical treatment. Any patient with spinal stenosis who develops loss of bowel or bladder function or has rapidly progressive leg weakness should undergo urgent evaluation for surgery.

FOR MORE INFORMATION

National Institute of Arthritis and Musculoskeletal and Skin Diseases

www.niams.nih.gov/health-topics/spinal-stenosis

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