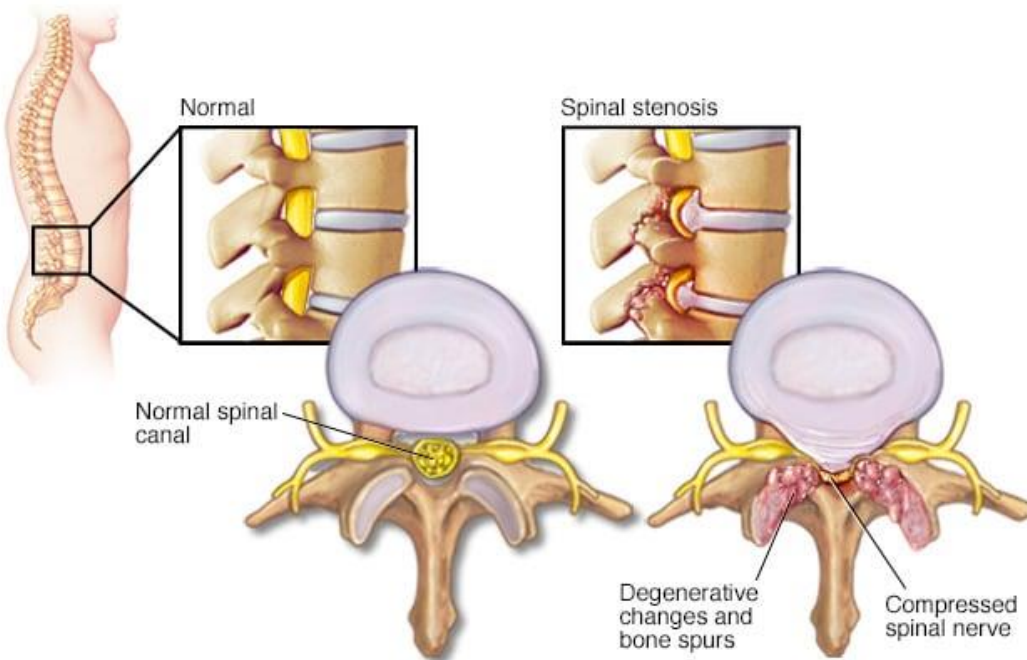


## Lumbar spinal stenosis:

Lumbar spinal stenosis is one of the most common lumbar spine syndromes we see in clinical practice. Stenosis typically presents in the later decades of life (60's and older) and can negatively impact function and quality of life. When patient understand the diagnosis, and know when and why they may be experiencing symptoms, they can begin to manage symptoms better.

Stenosis is a term that means, "narrowing." In this case, narrowing of the spinal canal and/or narrowing of the holes on the sides of the spine called the neuroforamen. As the spine ages different anatomic structures in the spine begin to show signs of aging. This may include degeneration of the lumbar discs (loss of height, bulging, herniations), boney spurs from the endplates (osteophytes), arthritic changes of the facet joints, thickening of the ligaments (ligamentum flavum) and abnormal alignment of the vertebral bodies (spondylolisthesis and scoliosis).



As the spinal canal narrows the descending nerve roots in the canal and neuroforamen start to become compressed. Also, since nerves must receive blood-flow (arterioles and veins) to function, when the narrowing worsens the blood flow to the spinal nerves is disrupted. Nerve compression, the build-up of inflammatory chemicals in the spinal canal and venous hypertension results in nerves that don't function optimally. This leads to clinical symptoms of spinal stenosis.

Typical symptoms of spinal stenosis are pain in the low back and buttocks and cramping, heaviness-fatigue in the legs whenever a patient stands and walks. These symptoms are called, "neurogenic claudication." As symptoms worsen patients may not be able to stand or walk for even short distances without having to sit down or bend-over at the waist. You may have noticed yourself or other patients walking like they are hunched over. This type of gait pattern is typical for patients with stenosis because bending over or sitting down actually helps to open-up the spinal canal just enough to decrease some of the pressure on the nerve roots and improve blood flow. It can be a vicious cycle though as many

patients may gravitate to becoming more sedentary to avoid becoming symptomatic. Other patients may have pain in one or both legs that is in a distinct nerve root distribution. This is called radiculopathy or more commonly referred to as, "sciatica." (See section on nerve root pain).

## Symptoms of Lumbar Spinal Stenosis



*Low back pain and leg pain are typically worse with prolonged standing and walking. Leaning over a shopping cart, walker or just flexing at the lumbar spine may decrease this pain. Sitting is typically the most tolerated position with symptomatic spinal stenosis.*

Treatment for stenosis may include activity modification, such as avoiding situations where you must stand and walk for longer periods of time. However, this may lead to a more sedentary lifestyle that is not beneficial. NSAIDs, Tylenol, oral steroids, muscle relaxers, nerve pain medications and even opioids may be used to treat pain associated with stenosis. Medications should always be used in conjunction with other treatments. Some patients may benefit from physical therapy, home exercises and chiropractic. When pain from neurogenic claudication or radiculopathy is not responding to conservative measures a lumbar epidural steroid injection may be offered to decrease the inflammation around the nerve roots in the spinal canal.

When patients have exhausted all conservative options and symptoms are intolerable; or if your physician suspects that there are worsening neurological signs on physical exam (e.g., weakness in the feet and legs, sensory loss in the legs or buttocks, inability to urinate normally) a surgical evaluation may be needed. The clinicians at Buffalo Spine and Sports Medicine can help determine when you may need to consider a surgical evaluation to relieve the pressure on the spinal nerves from stenosis.