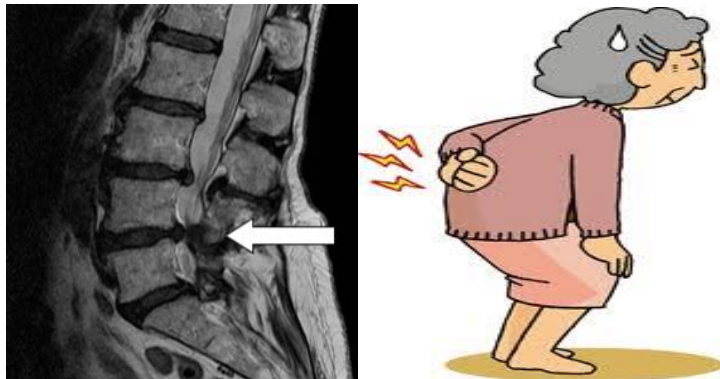


Spinal Stenosis

A medical disorder that involves a narrowing of the spinal canal and causes nerve impingement is known as spinal stenosis. This condition is a painful one, resulting in lower extremity pain, aching, weakness that often causes neck or lower back pain as well. The condition affects people of any age, however, those over the age of 65 are more often seen with the problem.

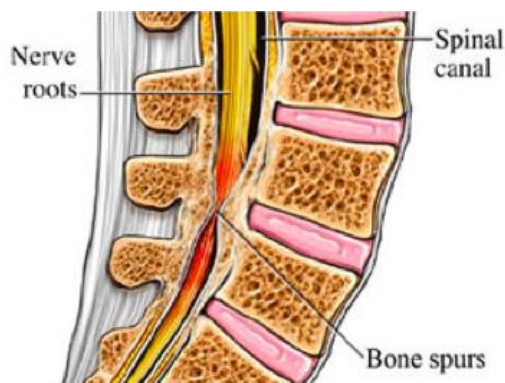


MRI showing spinal canal constriction from spinal stenosis.

What is the Pathology of Spinal Stenosis?

The symptoms caused by spinal stenosis are due to the complications and problems that arise from the narrowing of the spinal canal from arthritis. The canal is where the spinal cord is found and when constriction occurs, impingement on the spinal nerve roots can develop. This may lead to significant symptoms of pain and discomfort.

Spinal stenosis can be caused by a variety of reasons, from arthritic changes of the discs and vertebrae to physical deformities and disc degeneration. Usually the progression is disc degeneration leads to arthritis which leads to bone and soft tissue overgrowth. This then pinches on spinal nerves leading to pain.



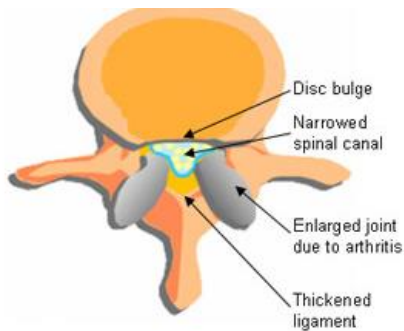
Spinal stenosis pinches on nerve roots and even the spinal cord itself.

When impingement occurs, significant pain may result. Combined pain and decreased mobility can have a dramatic impact on a person's daily activities and their ability to carry out a normal routine that includes work, socializing, recreational activities or playing with the grandkids. The pain and lack of

mobility caused by spinal stenosis can greatly impair the lifestyle of a patient with spinal stenosis (Boswell 2007).

How is Spinal Stenosis Diagnosed?

A medical doctor is often the person to diagnose the condition through a complete physical medical examination and assessment. Your pain management doctor may have you conduct various movements and mobility exercises to see if there is limited motion or pain related to the activity.



Typically patients describe symptom onset while walking downstairs or any position that puts the spine in extension and closes down the spinal canal more. Pain relief is often achieved by leaning forward such as leaning on a grocery cart which opens up the spinal canal.

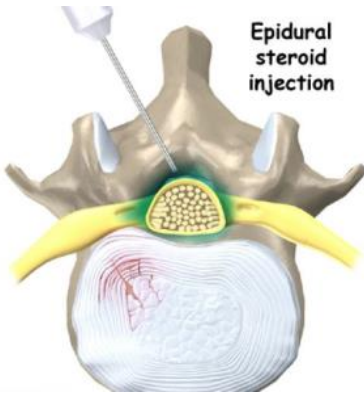
Radiological imaging tests may be required for further investigation and confirmation of spinal stenosis. Some of the testing ordered to diagnose spinal stenosis may include x-rays; however further testing is often required. MRI and CT scans may reveal the condition more clearly than x-rays.

What are the Treatment Options for Spinal Stenosis?

There are a wide variety of treatment options available for spinal stenosis, particularly used to decrease pain and improve daily abilities. Medications are among the most common form of treatment and are commonly used in the management of pain related to spinal stenosis that presents sciatic pain.

Medication options include: NSAIDS, Tylenol, Short term Opioids, Muscle Relaxers or neurogenic medications like Lyrica or Neurontin.

Alternative treatments may also be used in combination with medication or other forms of treatment. Some of the more common and favorable alternative treatments may include acupuncture and chiropractic care (Love, J et al., PMID, 2003). Physical therapy may help to relieve pain including heat, ice, electrical stimulation and ultrasound. Spinal decompression therapy has been shown to be an excellent low risk, non-invasive and effective treatment as well for stenosis.



Epidural injections work well over 75% of the time for spinal stenosis.

Epidural steroid injections are often given for the treatment of spinal stenosis related symptoms. This is a procedure that involves injecting medication into the epidural space to help relieve symptoms of pain caused by an irritated nerve root.

The injection is often long lasting and provides relief from pain for several weeks at a time and may be given as a series that is repeated every few months. Epidural steroidal injections are beneficial because they offer immediate relief so that the patient is able to function better and carry out daily activities with little to no pain (Coronado et al., PMID, 2007).



Spinal cord stimulation may also be offered as a treatment for spinal stenosis and the symptoms associated with the condition if surgery is not an option and pain is severe. Patients who have undergone this form of treatment often show more than 60% improvement and their symptoms are significantly decreased (Chandler 2003). Check with your pain management specialist to discuss the possibility of spinal cord stimulation and if the treatment is right for you.

Surgical procedures to correct the condition are reserved for the most severe cases of spinal stenosis. Conservative forms of treatment should be exhausted before surgery is considered.

Are There Risk Factors for Spinal Stenosis?

Most people who develop spinal stenosis are over the age of 55, with most cases in patients over the age of 65. When the condition is seen in younger people it is generally because of genetic factors that have affected the bone development, such as scoliosis or dwarfism. Spinal injuries, tumors, thickened ligaments and herniated discs are all contributors of the condition.