

SPINAL STENOSIS

WHAT IS SPINAL STENOSIS?

Spinal stenosis is the narrowing of one or more spaces within your spinal canal. A tightened space can cause your spinal cord or nerves to become irritated, compressed or pinched.

WHAT CAUSES IT?

Spinal stenosis can be caused by:

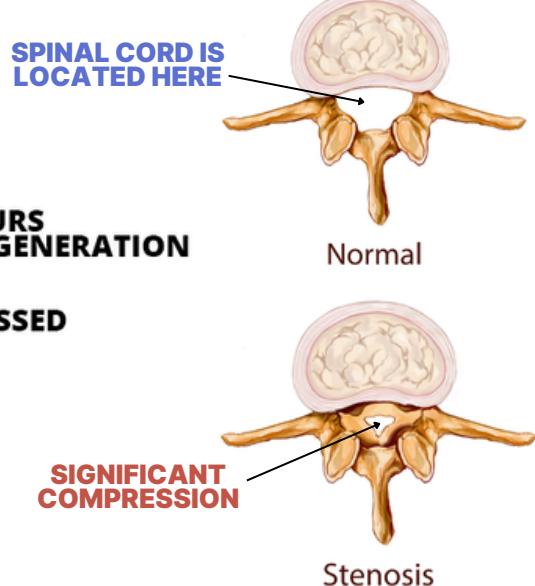
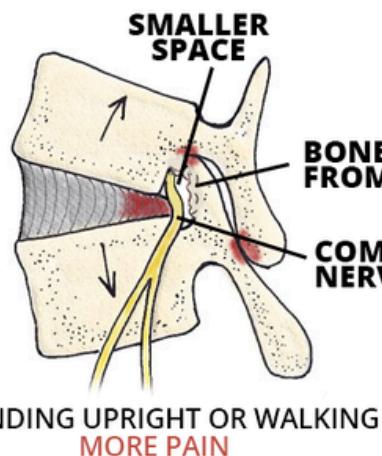
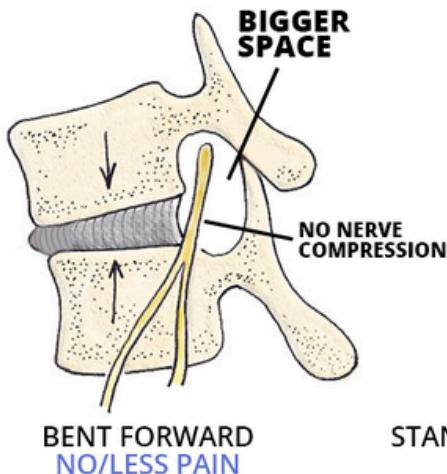
Degeneration. Wear and tear damage from arthritis can cause extra bone to grow on the spine. This creates **bone spurs** that can push into the spinal canal.

Disc herniation. Discs are the soft cushions that act as shock absorbers between the spinal bones. If part of the disc's soft inner material leaks out, it can press on the spinal cord or nerves.

Ligament thickening. The strong cords that help hold the bones of the spine together can become stiff and thick over time. Thick ligaments can push into the spinal canal.

WHAT DOES PAIN FROM SPINAL STENOSIS FEEL LIKE?

Pain from spinal stenosis can feel different from person to person. Some describe it as a dull ache or cramping. Others describe it as an electric-like or burning sensation down the legs. Commonly, the pain worsens with standing and walking, and is relieved by sitting or bending forward.



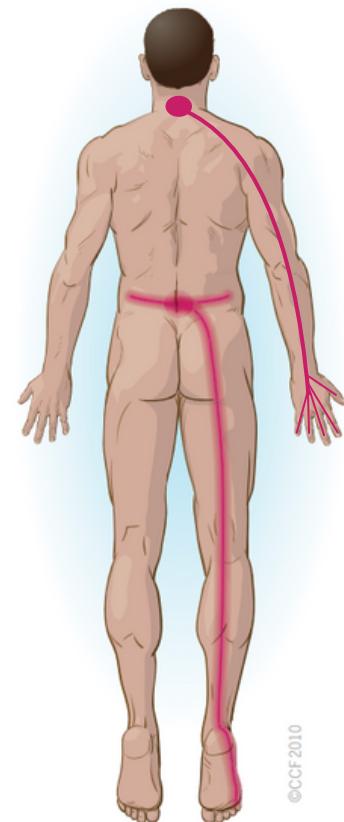
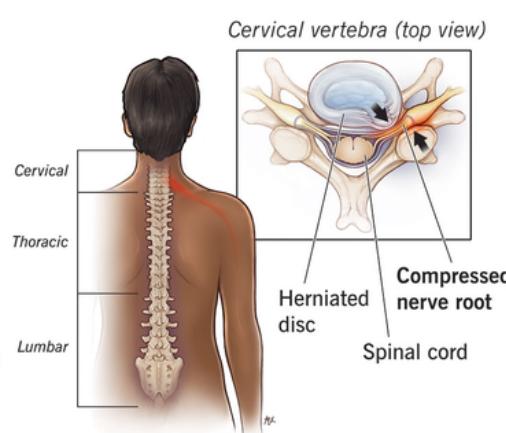
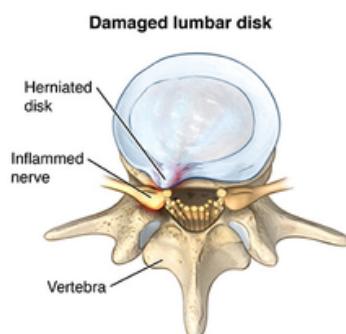
RADICULOPATHY

WHAT IS RADICULOPATHY?

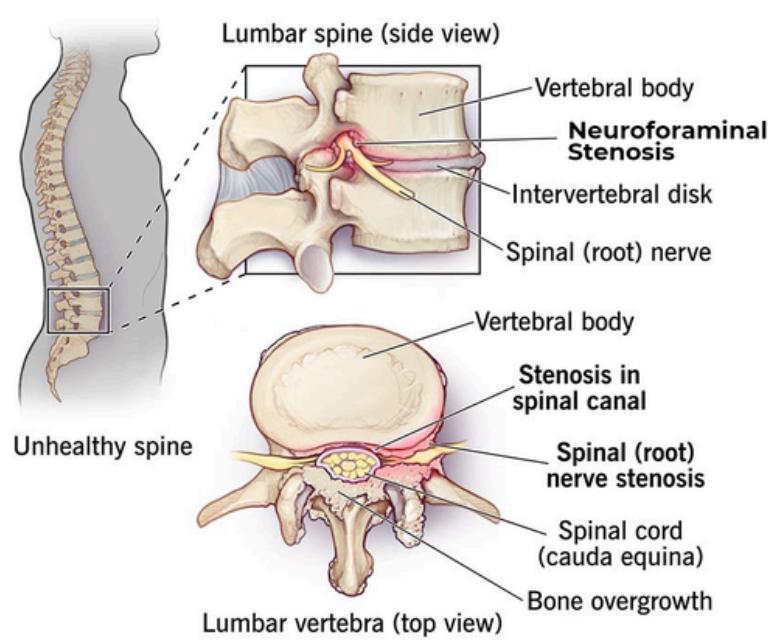
Radiculopathy describes a range of **symptoms** produced by the pinching of a nerve root in the spinal column.

- Sharp, shooting pain starting in the back down to the legs or in the neck down to the arms
- Weakness in the limbs
- Numbness, tingling, or altered sensation in the arms, legs, or back

WHAT CAUSES IT?



A **bulging or herniated disc** is a common cause of radiculopathy. Spinal discs act as cushions between your vertebrae. Occasionally, these discs slip out of place and develop tears causing the gel-like fluid to leak out and press on spinal nerves. This compression causes pain to radiate from the spine to the limbs. Other causes such as neuroforaminal stenosis, bone spurs, and ligament thickening can also cause radiculopathy.



WHAT ARE THE RISK FACTORS?

- aging
- improper lifting techniques
- repetitive motions
- being overweight
- poor posture
- a family history of degenerative arthritis



EPIDURAL STEROID INJECTIONS

WHAT ARE EPIDURAL STEROID INJECTIONS?

An epidural steroid injection (ESI) is an injection of a small dose of anti-inflammatory medication (corticosteroid) into the **epidural space**. It is a space located in the spine between the vertebrae and the dural sac, which surrounds the spinal cord.

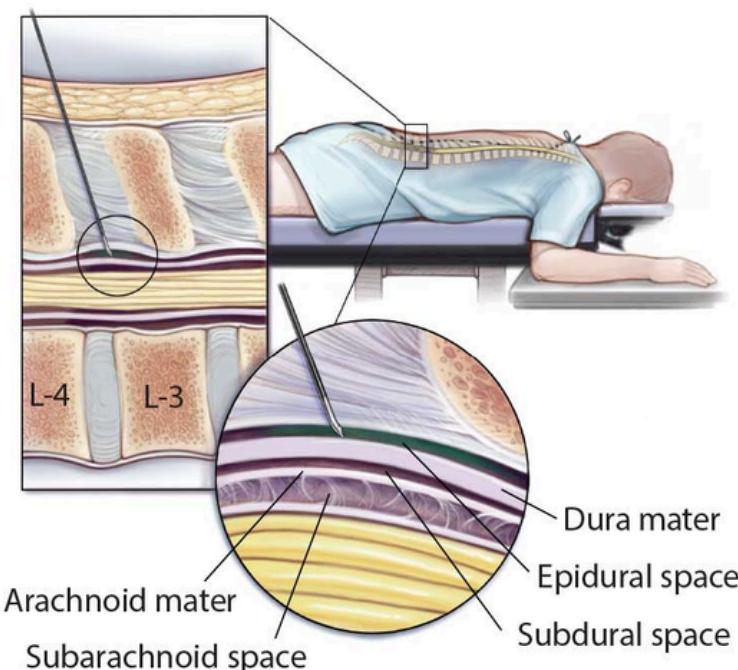
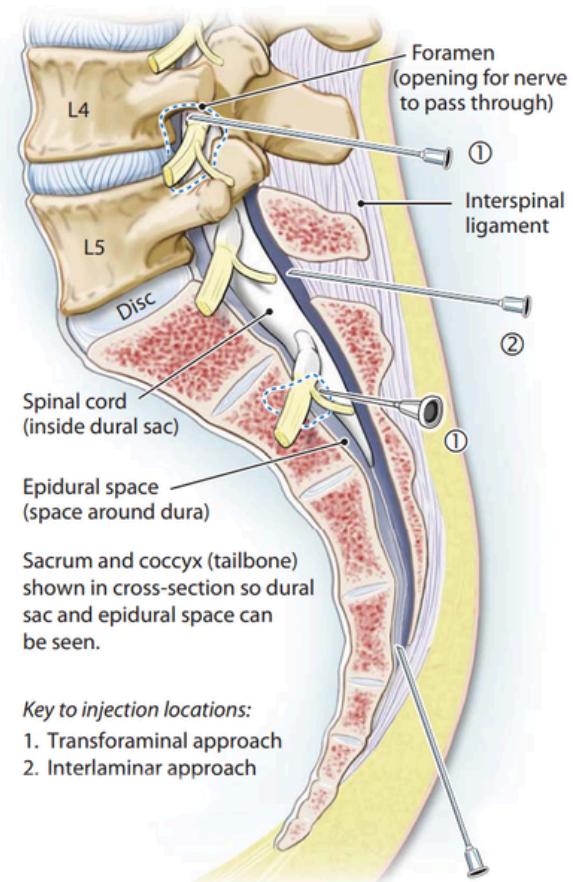
HOW DO THEY WORK?

Theoretically, the steroid injected reduces the inflammation of the nerve roots as they exit the spine, which can help alleviate pain in the neck, back, and/or limbs.

HOW LONG DOES RELIEF LAST?

There is **no definite time frame** for pain relief with ESI. Each patient responds differently, reporting pain relief lasting for weeks to months. If the symptoms do return, we will discuss options available for continued pain relief, which may include repeating the injection for additive benefit.

HOW IS THE PROCEDURE DONE?



You will be lying on your stomach and fully awake. The back or neck is then cleansed with an antiseptic soap. A sterile drape is placed. The skin is numbed with a local anesthetic. This is felt as a stinging or burning sensation. The needle is then advanced into the **epidural space** with fluoroscopic (X-ray) guidance. Pressure is the usual sensation. Once the needle is in the epidural space, the medication is infused and the procedure is complete. Your skin will be cleansed and a bandage will be applied, which can be removed the next morning.

HOW MANY INJECTIONS DO I NEED?

If the first injection does not relieve your symptoms in about a week to 2 weeks, we may recommend that you have one more injection. Similarly, if the second injection does not relieve your symptoms in about a week to two weeks, you may or may not be recommended to have a third injection. In 6 months, we generally do not perform more than 3 injections. This is because the medication injected lasts for about 6 months. If 3 injections have not helped you much, it is unlikely that you will get any further benefit from more injections. It is vital for you to monitor how these injections help for us to determine the next most appropriate plan of care.

WHAT ARE THE RISKS AND COMPLICATIONS?

Lumbar epidural steroid injections are usually safe. Serious side effects or complications are rare, namely bleeding, headache, infection, nerve injury, and allergic reaction to the medication. Short-term side effects such as pain and tenderness around the injection site are common. The procedure **cannot be performed** if you have an **active infection, flu, cold, fever, very high blood pressure, or if you are on blood thinners**. For your safety, please inform the doctor or staff of any of these conditions.

ARE YOU TAKING ANY BLOOD THINNERS?

Let us know if you have bleeding disorders, or if you are using blood thinners like aspirin, Coumadin® (warfarin), Plavix® (clopidogrel), Ticlid® (ticlopidine), heparin, Lovenox® (enoxaparin), Fragmin® (dalteparin), Aggrenox® (dipyridamole), or NSAIDs (such as ibuprofen, naproxen, nabumetone, diclofenac, etodolac, indomethacin, ketorolac, meloxicam, piroxicam, ketoprofen, oxaprozin). You will be asked to stop taking the above-listed medication (with clearance from your PCP or cardiologist as needed) for a certain amount of days before the procedure to reduce the risk of bleeding complications.

WHEN SHOULD I CALL FOR HELP?

The day after the injection, we will call to check up on how you are doing. It is essential that you let us know immediately if you develop worsening pain, tingling, numbness, weakness, loss of bowel and/or bladder control, new symptoms, difficulty walking, or the sudden deterioration of functional capability.

