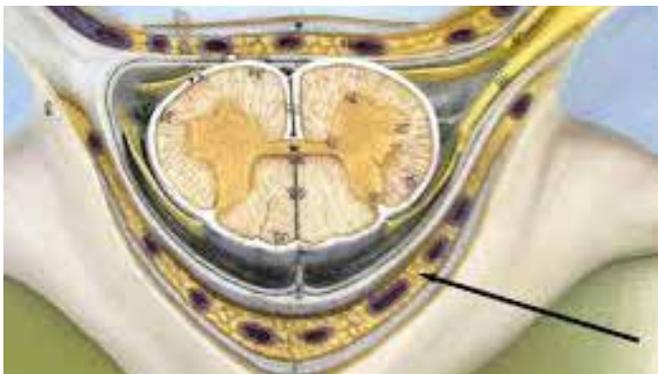


Lumbar Epidural Steroid Injections For Low Back Pain and Radiating Leg Pain

A lumbar steroid injection is an outpatient procedure for treating low back and leg pain. There are three approaches to performing a lumbar epidural steroid injection and each way has its place in pain management and will be detailed below. This information page will explain what each approach is then your provider will explain if it is for you.

What is the Epidural Space?

The dura is a protective covering of the spinal cord and exiting spinal nerves. The fat filled space just outside the dura, between the dura and the bony structures is the epidural space. It serves to provide protection and cushioning for the dural contents (Black Arrow)

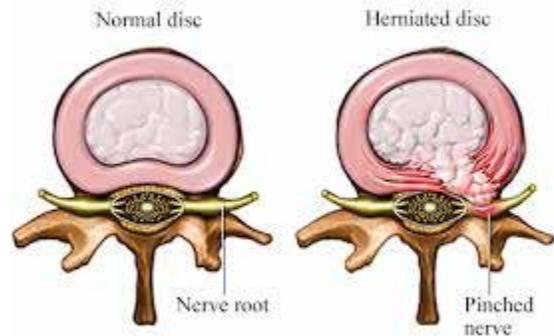


Mechanism of injury treated with a lumbar epidural:

The lumbar area of the spine has five bones, called vertebrae. Soft discs found between these vertebrae cushion them, hold them together, and control motion. If a disc tears, the inner disc gel may leak out. This can cause pressure compressing nerve roots or produce pain through the bodies inflammatory response. Discs can also bulge, this can also inflame nerve roots. Bone spurs, loss of disc height through degeneration, slippage of one vertebrae over another (spondylolisthesis), spinal stenosis, and post surgical pain syndromes may also cause pressure on nerve roots.

How do I know if I have disc and nerve root pain?

If you have pain in your low back when you bend your back forward, you may have disc related inflammation. If pain travels to your legs when you bend your back you may have nerve root inflammation.



Common tests such as MRI's can show disc bulges, herniations, and nerve root compression, but may not show tears in discs. Lumbar epidurals may provide relief if disc problems, dural, or nerve root inflammation are causing your pain.

What is a lumbar transforaminal epidural steroid injection?

With a transforaminal ESI, often referred to as a 'nerve block', the needle is placed alongside the nerve as it exits the spine and medication is placed into the 'nerve sleeve'. The medication then travels up the sleeve and into the epidural space from the side. This allows for a more concentrated delivery of steroid into one affected area (usually one segment and one side). Transforaminal ESIs can also be modified slightly to allow for more specific coverage of a single nerve and can provide diagnostic benefit, in addition to improved pain and function.

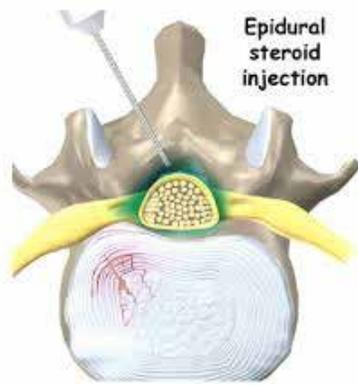
This technique in contrast to a midline (interlaminar) epidural injection puts a smaller amount of medication very close to the source of inflammation and is typically reserved for the lumbar spine. This approach is generally considered to offer superior relief for disc herniations causing unilateral radiculopathy (pain shooting down leg). It may be performed in up to two injured levels per visit if necessary.



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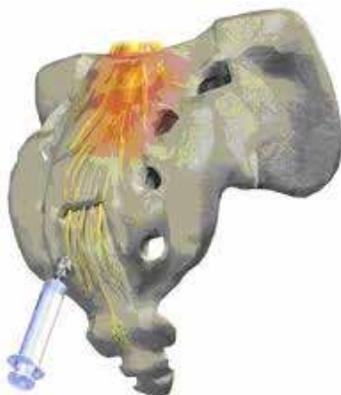
What is a lumbar interlaminar steroid injection?

An interlaminar ESI, often referred to simply as an 'epidural injection', involves placing the needle into the back of the epidural space and delivering the steroid over a wider area. With this approach the steroid will often spread over several spinal segments and cover both sides of the spinal canal. Due to this the medication is less concentrated but covers more area. Transforaminal epidurals have replaced interlaminar epidurals for many conditions but the interlaminar approach still has a place in pain management including bilateral and multilevel disease as well as spinal stenosis.



What is a Caudal Steroid Injection?

The caudal approach uses the sacral hiatus (a small bony opening just above the tailbone) to allow for needle placement into the very bottom of the epidural space. With this approach, the steroid will often spread over several spinal segments and cover both sides of the spinal canal. More steroid is administered and multiple lower spinal segments are covered. An older approach that is still useful for multilevel low lumbar and sacral spinal stenosis.



What happens during an injection?

You will arrive for the procedure and be given a hospital gown. You will then be taken to the procedure room where you will be asked to move to an x ray table where you will lie on your stomach. After a sterile prep and drape, local anesthetic will be used to numb your skin. The practitioner will then insert a thin needle directly into the epidural space. Fluoroscopy, a type of x-ray, must be used to ensure the safe and proper position of the needle. A dye is first injected to ensure the needle is in the correct spot to maximize safety and effectiveness. Once the needle is verified to be exactly where it needs to be the medication is injected. The needle is then withdrawn, a band aid is applied and you will be taken to a recovery area.

What happens after an injection?

You will be monitored for approximately 20 minutes after the injection. When you are ready to leave the staff will give you discharge instructions. Take it easy the rest of the day. You may feel immediate relief from the local anesthetic for a period of time. This may indicate the medication has reached the right spot.

Your pain may return after this short pain free period, or may even be a little worse for a day or two. It may be caused by needle irritation or by the corticosteroid itself. Corticosteroids usually take a few days to a week to start working. Often injections are repeated after a few weeks in a series to get the best results. You may return to work the day after the injection and resume your normal activity and exercise program.

How long can I expect pain relief?

Most disc related pain will eventually heal itself. An epidural helps reduce pain to help you through the process of disc healing. The extent and duration of pain relief may depend on the amount of disc, dural, or nerve root inflammation. Sometimes an injection brings several weeks to months of pain relief then further treatment may be needed (often epidurals are done in a series of three injections weeks apart). Other times, a single injection brings long term pain relief. If your pain is caused by injury to more than one spinal level, only some of your symptoms may be helped by a single injection.