Cervical Interlaminar Epidural Steroid Injection
For neck and Arm pain

A cervical epidural steroid injection is an outpatient procedure for treating neck, upper back, shoulder, head, and arm pain shown on MRI to be due to a herniated intervertebral disc. This information page will explain what it 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 cervical interlaminar epidural injection:

The cervical area of the spine has seven 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 inflaming nerve roots or the dura. Bone spurs and loss of disc height through degeneration may cause pressure on nerve roots.

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

If you have pain in your neck or upper back when you move your head or neck you may have cervical disc and dural inflammation. If pain travels to your arm when you move your head or neck 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. Cervical interlaminar epidurals may provide relief if disc problems, or dural, or nerve root inflammation are causing your pain.

What is an interlaminar cervical epidural steroid injection?

In this type of injection a powerful corticosteroid (anti-inflammatory medication) is injected into the epidural space. A local anesthetic is also injected. The medication is injected midline typically at the C7-T1 spinal level. The medication can be injected here or a catheter can be placed through the needle and advanced under x-ray into close proximity to the offending disc level.

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 an epidural 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 or a catheter advanced through 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.

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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 will be helped by a single injection. The cervical epidural space is smaller than other areas of the spine so only one injection per visit is needed for maximum relief.