

Epidural Steroid Injection

What is an epidural steroid injection (ESI) and why is it performed?

- An ESI is an injection of a small dose of anti-inflammatory medication into the neck (cervical), upper back (thoracic), lower back (lumbar), or tail bone area (sacrum). ESIs are injected into the fatty tissue surrounding the spinal nerves – this area is known as the epidural space.
- An ESI can also be used as treatment to help reduce neck related arm pain or back related leg pain by reducing inflammation stemming from the narrowing of passages where the nerves pass down or out of the spine. ESIs are not helpful for isolated neck or back pain (e.g., where there is no arm or leg pain experienced).

What to do before the procedure

- Review the handout called 'Pre-Procedure Instructions for Fluoroscopy'.
- If you take any anticoagulant/antiplatelet (blood thinner) medications, you must discuss this with your pain specialist well before the procedure date because these types of medications have to be stopped prior to performing an ESI in order to prevent serious bleeding from occurring. There are several types of blood thinner medications and when exactly to stop the medication depends on the type of blood thinner medication taken.

What to expect during the procedure

- This procedure will take about 10 to 30 minutes and is often done using x-ray guidance.
- The patient will need to lie face down for this procedure. Local anesthetic will be used to numb the skin before the injection. Once the needle is confirmed to be in the correct position, the medication is injected.
- X-ray dye (also known as contrast dye) may also be used to confirm that the needle is in the correct location. Be certain to let the physician know if you are allergic to this material before it is injected.

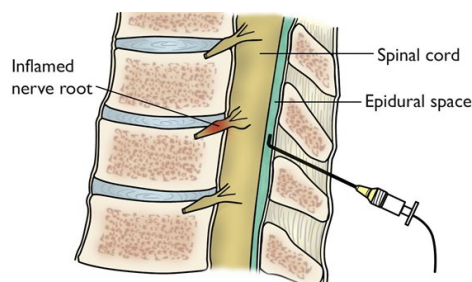


Image source : <https://orthoinfo.org/en/treatment/spinal-injections/>

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What to expect after the procedure

- The steroid will usually start working within 1-3 days but, in some cases, it can take a week to notice benefit. The duration of pain relief from an ESI is upwards of 6 to 8 weeks. If the ESI helps achieve the goals of therapy/functional improvement, it may be repeated.
- In other cases, it may be that no pain relief is obtained.
- Although uncommon, some patients may experience an increase in pain.

Side effects and risks

- Steroid injections are generally well tolerated; side effects are usually mild and resolve in a few days. Some patients may experience flushing of the face that can last a few days, increased blood pressure or blood sugar, fluid retention, mood swings, irritability, anxiety, and/or trouble sleeping.
- Prolonged steroid use can result in a weaker immune system, bone weakness/fractures, and cataracts. On the rare occasion, steroid injections can interfere with the body's normal steroid production (1 in 10, 000 cases). Very rarely, steroid use can cause severe hip arthritis that can require a replacement.
- Cerebrospinal fluid (CSF) leak
 - If the needle goes too deep, a tissue layer known as the dura can be punctured and this can cause a spinal fluid leak. This has been quoted to occur in less than 1 out of 100 procedures. If this occurs, the steroid injection must be postponed.
 - A very painful headache results in up to 50% of patients experiencing a spinal fluid leak. In most cases, this headache resolves in 10 days. This headache can be treated with a similar epidural injection using your own blood to patch the hole.
- Bleeding or infection in the epidural space are rare but serious complications that can result in permanent nerve damage. This may result in a surgical emergency. **If you experience the following, you must seek immediate medical attention by contacting the pain clinic (519-646-6100 ext. 61786) or going to the nearest emergency room.**
 - Early signs and symptoms vary depending on the level of occurrence and the amount of bleeding, but include:
 - **Numbness and weakness**
 - **Loss of bowel and bladder function**
 - **Severe back pain**
 - With infection, fever, nausea, or headaches may occur. This can also result in permanent nerve damage and you should immediately contact the pain clinic or go to the nearest emergency room if you develop these symptoms.