

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

- 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.
- Please let either the doctor or the medical assistant know of any recent vaccinations. Typically, Integrated Spine and Pain Services recommends injections be 2 weeks before or after you get the vaccine.
- If you are taking any antibiotics up until the day of your procedure, please reschedule said procedure until after you have finished the course of antibiotics and be 3 days without symptoms (asymptomatic) of an infection.
- For injections in the lower back, please wear pants or shorts that can be pulled down easily to be able to access the lower back. The pants or shorts should preferably not have any metal or plastic in the front of the garments to make sure it does not get in the way of the X-ray view.
- For injections in the neck, please wear a shirt that can be taken off easily so a patient gown can be put on in its place. This is so that the physician can have enough room to perform the procedure without having to worry about the clothing of the patient.

What to expect during the procedure

- This procedure will take about 10 to 30 minutes and is often done using x-ray guidance.
- A “time out” will occur where a few questions will be asked before the procedure begins. The location(s) and side(s) of the injection will also be confirmed. The questions are as follows:
 - A. May I get your full name and date of birth?
 - B. Are you currently taking antibiotics or have an infection?
 - C. Are you currently taking any blood thinners?
 - D. Are you currently pregnant?
 - E. Are you allergic to Contrast/Iodine/Lidocaine/Shellfish?
 - F. Do you have any new medical concerns or conditions since you were last seen by us? (Us referring to the practice known as ISPS)

Epidural Steroid Injection

- A disinfectant will be used to clean the skin before the procedure commences. A drape will then be placed on the patient in order to create a sterile field for the physician to work in so the procedure can be done as cleanly as possible.
- The patient will be told what position to be in (face down, on their back or on their left or right side) based on the procedure being done. Local anesthetic (lidocaine) will be used to numb the area 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.

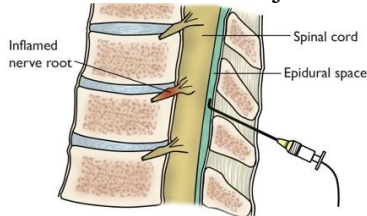


Image source : <https://orthoinfo.org/en/treatment/spinal-injections/> June 16, 2020

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 can vary from person to person and can be as short as 6-8 weeks or as long as lifetime. If the ESI helps achieve the goals of decreasing pain, symptoms and/or 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, increased excessive/ prolonged steroid use can cause severe hip arthritis that can require a replacement.
- Cerebrospinal fluid (CSF) leak
 - A. 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.
 - B. 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

Epidural Steroid Injection

experience the following, you must seek immediate medical attention by contacting the practice or going to the nearest emergency room.

- A. Early signs and symptoms vary depending on the level of occurrence, but include:
 - a. Numbness and weakness
 - b. Loss of bowel and bladder function
 - c. Severe back pain
- B. 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.