

WHAT TO KNOW:

Epidural Steroid Injections

ABOUT THE PROCEDURE

What is an epidural steroid injection (ESI)?

An ESI is an injection of a dose of anti-inflammatory medication into the neck (*cervical*), upper back (*thoracic*), lower back (*lumbar*), or tailbone area (*sacrum*). ESIs are injected into the spine underneath the bone and outside the spinal nerves and fluid, which is known as the *epidural space*.

Why might an ESI be performed?

An ESI can help reduce pain caused by diseased discs and/or compressed nerves going to the arms or legs by reducing inflammation stemming from the narrowing of passages where the nerves pass down or out of the spine. ESIs are often *not* helpful for isolated neck or back pain (i.e., where no arm or leg pain is present).

WHAT TO EXPECT

What to expect *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. These types of medications sometimes must be stopped prior to performing an ESI in order to prevent serious bleeding. It is important to tell your pain specialist which type of blood thinner medication you take, as this is important for determining when exactly to stop the medication. This may need to be coordinated with whoever prescribed the blood thinners.
- If you think it is at all possible you might be pregnant (e.g. late or missed period, or a female of child-bearing age not on birth control with any sexual activity within the last 2 weeks) please let your doctor know. A urine sample may be requested for pregnancy testing.

What to expect *during* the procedure

- This procedure will take about 10 to 30 minutes.
- You will lie face down for this procedure. Your doctor will first clean the area and place sterile coverings around the area. After confirming where to insert the needle, they will numb the skin with a local anesthetic (numbing medicine).



- Contrast (a special dye visible on X-ray) will be used to confirm that the needle is in the correct location. Let your doctor know if you are allergic to contrast prior to the procedure.
- Once needle position is confirmed, anti-inflammatory steroids (often with numbing medicine and or saline) are injected in one or more areas.
- Sometimes pressure or increased numbness/tingling can be felt. Please let your doctor know if that occurs.

What to expect *after* the procedure

- The steroid will usually start working within one to three days, but it can take up to a week or more to notice benefits. If it works, an ESI can provide pain relief lasting from weeks to months, and it can be repeated up to every 3 months, as needed.
- An ESI may not be effective in all cases. Although uncommon, some patients may experience a temporary 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, a temporary increase in blood pressure, blood sugar, swelling, mood swings, irritability, anxiety, and/or trouble sleeping.
- Prolonged or steroid overuse can result in a weakened immune system, bone weakness/fractures, and cataracts. On rare occasions, steroid injections can interfere with the body's normal steroid production (approximately 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, the tissue covering the spinal nerves and fluid can be punctured, which can cause a spinal fluid leak. This occurs less than 1% of the time. If this occurs, the steroid injection may be attempted at another level or postponed to another day.
 - In the case of a spinal fluid leak, some patients may experience a very painful headache. In most cases, this headache resolves in about a week and is not life-threatening. If needed, this 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 they are serious complications that can result in permanent nerve damage and a surgical emergency. If you experience any of the following within 72 hours of your procedure, go to the nearest emergency room.
 - Early signs and symptoms vary depending on the level of occurrence and the amount of bleeding, but include:
 - New or worsening numbness, tingling and/or weakness
 - Loss of bowel and bladder control (worse than baseline)
 - Severe back pain or redness, swelling, or infection at the injection sites



VIDEOS ABOUT THIS PROCEDURE

Use the links or QR codes below to see videos explaining more about epidural steroid injections (ESIs).

[Cervical ESIs](#)



[Lumbar ESIs](#)



[Thoracic ESIs](#)

