

# Lumbar Epidural Injections

Diagnosis and Treatment  
to Help Reduce Pain

# Lumbar Epidural Injections

*Your provider may have suggested* **you have a lumbar epidural injection. This procedure can help relieve pain from problems in the low back. It does this by reducing inflammation (swelling and irritation). Injecting certain areas of your back can also help your provider diagnose the source of your pain.**



## Relieving Your Pain

A lumbar epidural injection won't stop all low back, buttock, and leg pain. But it can reduce pain and inflammation and break the pain cycle. This cycle may begin when pain makes it hard to move. Lack of movement can then slow down healing and cause muscles to weaken. By getting you moving again, the injection may help speed your recovery. However, some people feel more relief from an injection than others. Also, more than one injection may be needed for relief.

## Using Injection for Diagnosis

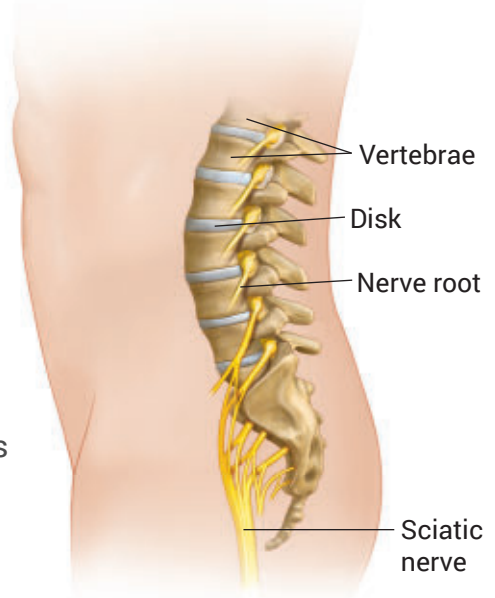
An injection (called a **selective nerve block** or a **selective epidural**) can help locate the source of pain. It briefly numbs specific spinal nerves. If you feel relief, the injection may identify the pain source. If you don't feel relief, the pain may be coming from another part of your spine or from somewhere else in your body.

## Understanding Your Back

Learn more about your back anatomy. That way, you can understand how an injection can help relieve or locate your pain.

- **Vertebrae** are the bones that stack up to form the spine.
- **Disks** are “cushions” that provide padding between the vertebrae. A damaged disk can lead to inflammation and pain.
- **The spinal canal** is a tunnel formed within the stacked vertebrae. In the lumbar spine, nerves run through this canal. The nerves are surrounded by a thin layer of tissue.
- **A nerve root** is the part of a nerve that leaves the spinal canal. Inflamed nerve roots can lead to back, buttock, and leg pain.
- **The sciatic nerve** is a large nerve formed from several lumbar nerve roots. The sciatic nerve extends down the leg. Inflamed sciatic nerve roots can lead to buttock and leg pain.

Side view of lumbar spine

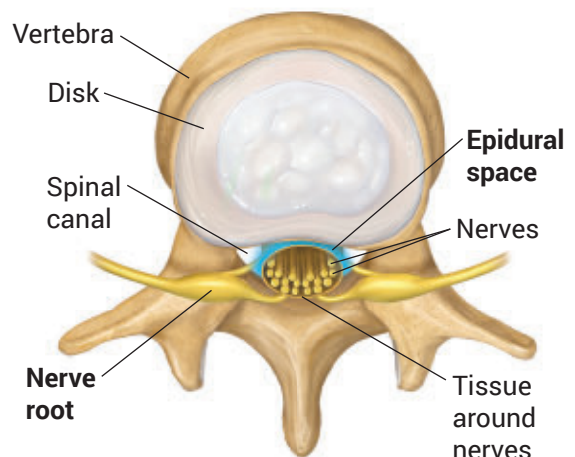


## Possible Injection Sites

The spot where the medication is injected into your spine depends on the goal of the injection.

- For pain relief, the injection is done in the **epidural space**. This is the area that surrounds the nerves in the spinal canal.
- To locate the source of the pain or treat the cause of your pain, your provider may target a specific spinal nerve. Medication is then injected around that **nerve root**.

Top view of a lumbar vertebra and disk



# The Injection Procedure

*A lumbar epidural injection is an outpatient procedure. It may be done in an office, hospital, or a surgery center. You and your provider will discuss preparing for the procedure and what to expect afterward.*



Put all your medications into a bag. Show the bag to your provider before your procedure.

## Getting Ready

To prepare, follow instructions carefully. These include:

- Telling your provider what medications you take, including all prescription and over-the-counter medications and supplements. Be sure to mention if you take aspirin or other blood thinners or anti-inflammatories. You may need to stop taking some or all of them before the injection.
- Asking your provider if you should stop eating and drinking before your procedure, and for how long.
- Arranging for an adult family member or friend to drive you home afterward.
- Bringing any requested x-ray, CT, or MRI images from other healthcare providers with you.

## Checking In

When you check in, you'll be asked to sign certain forms. These may include surveys about your pain. Your provider also may give you a brief exam. You may receive an IV (**intravenous**) line to provide fluids and medication.



## Risks and Complications

Risks and complications of lumbar epidural injections are rare, but may include:

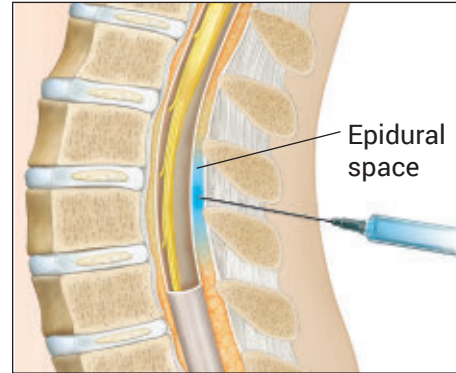
- Infection
- Bleeding
- Spinal fluid leak
- Spinal headache
- Nausea
- Nerve injury, possibly leading to paralysis
- Other risks or complications as discussed by your provider

**Spinal headache:** This is a headache that can occur after a spinal injection. Lying flat can help relieve the pain.



## During the Procedure

- To begin, you may be given medication through the IV line to help you relax.
- Monitoring devices may be attached to your chest, arm, or finger. These devices measure your heart rate, breathing, and blood pressure.
- You'll lie on your stomach or side. (This depends on where the injection will be given.)
- Your back is cleaned and may be covered with sterile towels.
- Medication is given to numb the skin at the injection site.
- The epidural needle is carefully inserted into the target location.
- If **fluoroscopy** (x-ray imaging) is to be used, a contrast “dye” may be injected into your back. This helps ensure that the medication is delivered to the appropriate area.
- A **local anesthetic** (for numbing), **steroids** (for reducing inflammation), or both are then injected into the epidural space or around the nerve root.



Medication is injected into the epidural space.



## After the Procedure

You'll spend up to an hour in a recovery area. Before going home, you may be asked to fill out another survey about your pain. You may also have some side effects. They should go away in a few days. Side effects can include:

- Briefly increased pain
- Headaches
- Trouble sleeping
- Blood sugar issues (your blood sugar may be monitored after the injection)

# Back at Home

*You don't need to stay lying down* when you get home. In fact, it's best to walk around if you feel up to it. Just be careful about being too active. Even if you feel better right away, avoid activities that may strain your back. If you feel increased pain at first, keep in mind that it most often goes away within a few days.



## The First Few Days

An injection to help locate the source of pain may give only brief pain relief. When it wears off, you'll feel the same as you did before the injection. An injection to reduce inflammation may take up to 2 weeks to work. You may feel even more pain at first. Whether you were injected for pain relief or diagnosis, these tips can help:

- Take walks when you feel up to it.
- Rest if needed, but get up and move around after sitting for half an hour.
- If needed, a cold gel pack or bag of ice can help relieve pain or discomfort. Wrap the cold source in a thin towel—don't apply it directly to bare skin.
- Don't exercise vigorously.
- Don't drive until your provider says it's okay.
- Return to work or other activities when your provider says you're ready.



## When to Call Your Provider

Call your provider right away if you notice any of the following:

- Redness or swelling around the injection site
- Severe pain or headache
- Fever of 100.4°F (38°C) or higher, or as directed by your provider
- New or increasing weakness, numbness, or paralysis in the legs
- New bowel or bladder problems

# Improving Strength and Motion

*Exercises and good body mechanics* (how you stand, sit, lie, and move) may help keep pain from returning or worsening. The exercises below help build strength and flexibility. Get your provider's permission before beginning back exercises. Stop and call your provider if you feel any new or lasting pain during or after exercising.

## Pelvic Tilt

- Lie on your back with your knees bent and your feet flat.
- Tighten your stomach and buttocks, and gently press your low back into the bed. This tilts your pelvis.
- Hold for 5 seconds. Repeat 10 times. Do this twice a day.



## Partial Sit-Up

- Lie on your back with your feet flat, your knees bent, and your arms crossed over your chest.
- Slowly raise your head and shoulders off the floor.
- Hold for 5 seconds. Repeat 10 times. Do this twice a day.



## Lifting Safely

No matter how strong your back is, lift safely to prevent injuries. Make it a rule to follow these steps:

- Stand close to the object.
- Bend at the hips and knees. Keep your ears, shoulders, and hips in line.
- Hold the object close to your body.
- Press down with your feet and lift using your legs, not your back.
- Avoid twisting while lifting.

## Work Together with Your Provider

Whether your injection was for relieving pain or locating its source, you can take steps toward a healthier back. Talk with your provider. Learn the best way to treat your pain. If it worsens, let your provider know. But often, your back health is under your control. Exercise and good body mechanics help. Other lifestyle choices can also make a difference.



## Choosing a Healthy Back

Making the lifestyle choices below can play a role in maintaining back health.

- **Quit smoking.** Smokers have a higher risk for pain due to problems in the low back.
- **Eat healthy.** A low-fat, high-fiber diet can help control weight and improve back health.
- **Manage stress.** Keeping stress in check can ease and may prevent back pain.
- **Stay active.** Physical activity, even walking, can help reduce pain and increase flexibility and strength.
- **Practice good posture.** At home or in the workplace, practice good body mechanics. Think of your back when doing everyday activities, such as reaching or lifting.

Also available in Spanish

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