

Spinal Injections

What is it?

A **spinal injection** is a procedure in which your doctor injects medication into a specific area of your spine. It is used to either diagnose the source of your back pain, or to reduce swelling and relieve your pain. The injection you will have depends on your symptoms, the location of your pain, and the goals of your treatment.

The most common types of spinal injection are listed below and are illustrated and described in more detail on the following pages.

- Epidural steroid (cortisone) injections near specific nerves or directly into the epidural space (the area that surrounds the nerves within the spinal canal)
- Facet joint injections and nerve blocks in or near the facet joints that connect the vertebrae
- Sacroiliac (SI) joint injections into the SI joint, located between the sacrum and pelvic bones

Other types of spinal injections — such as diagnostic discograms, neurotomies, and trigger point injections — are described on separate fact sheets.

Why do I need it?

Your doctor may recommend a spinal injection if you have back pain that has not responded to other treatments, such as physical therapy. Spinal injections are an alternative to back surgery. They can be used to both diagnose and treat back pain.

- To diagnose your pain: The doctor injects numbing medication (anesthetic) into one or more specific areas of your spine, blocking all feeling in those areas. If the injections relieve your pain, they can confirm the source of your pain and help the doctor know how to treat it. If you still feel pain after the injection, it may mean the pain is coming from somewhere else. You may need several injections or types of injections to find the source of your pain.
- To relieve your pain: Once the source of your pain is confirmed, the doctor can use spinal injections to relieve your pain, reduce swelling, or improve mobility. An anti-inflammatory medication such as cortisone is injected directly into the place the pain is coming from. Depending on the type of medication injected, you may feel pain relief right away, or it may take a few days or more to take effect. Pain relief may be temporary (lasting several weeks or months) or long lasting.

Potential Benefits	Risks and Potential Complications	Alternatives
 May relieve or diagnose pain Less invasive than surgery, and so have fewer risks Allow fast recovery Do not require hospital stay 	Different types of spinal injections carry different risks. Your doctor will explain the specific risks of your procedure. These potential risks are common to many spinal injections: Neurological changes, such as motor weakness Increasing numbness Briefly increased pain or severe increased pain Incontinence Spinal headache Bleeding, infection (rare) Stroke Spinal cord injury	Spinal injections are used after patients have experienced pain for several months and have already tried other approaches, such as: • Ice • Oral pain medication • Physical therapy • Watching and waiting If the spinal injection does not help, your doctor may recommend surgery.

How do I prepare for my injection?

These are things you can do to make your procedure go better:

- **Bring any x-ray films,** MRIs, or CT scans with you to your appointment.
- Bring a list of all your current medications.

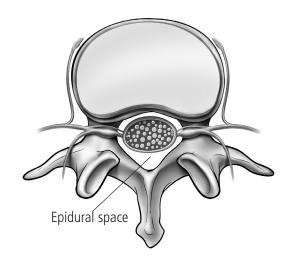
 Be sure to include everything, including over-the-counter medications and vitamins. And tell your healthcare providers if you have allergies to any medications. You may be asked to stop taking certain blood thinners such as Plavix and Coumadin before the procedure. Always check with your healthcare providers before stopping any medications.
- If the purpose of your injection is to diagnose, do not take your pain medication. Arrive at your appointment feeling your usual amount of pain. This will make it easier tell if the injection relieved your pain.
- Ask your healthcare providers about food and drink. You may be asked not to eat or drink anything for 4 to 8 hours before the procedure.
- Tell your healthcare providers if you are ill or pregnant. If you have a cold, flu, or other illness the day of the procedure, or if there is any chance you may be pregnant, be sure to tell your healthcare providers.
- **Wear loose clothing.** Wear clothing that won't rub against the site of the injection.

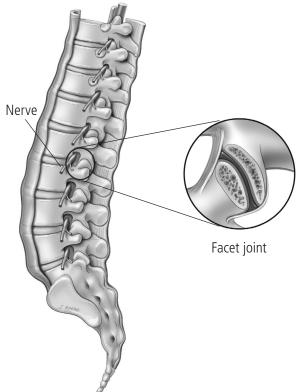
What happens during the procedure?

The actual injection takes only a few minutes, but plan on 30 to 60 minutes for the whole procedure You will remain awake and able to communicate the entire time. Your procedure will include the following:

- **Monitoring.** You may have monitoring devices attached to you to check your heart rate and breathing.
- **Sedative**. You may be given a sedative to help you relax.
- **Position.** You may lie face down, face up, or on your side.
- Local anesthetic. You'll be given a local anesthetic near the injection site to numb the skin. This usually feels like a pinprick with some burning, and only lasts a second.
- **Fluoroscopic x-ray guidance.** The doctor may inject a contrast dye. On a fluoroscopic x-ray, the dye helps identify specific parts of your spine and confirm the correct placement of the needle.
- **Injection**. Numbing medications or anti-inflammatory medications (steroids) will be injected into your spine.

Epidural steroid injections are given into the **epidural space**, the space between the covering of the spinal cord and the inside walls of the spinal canal. A needle is inserted between 2 vertebrae, or near a nerve. The steroid medication can then move up and down the spinal canal to coat the nerve roots near the area of the injection. Epidural injections can treat pain in a large region of the body.

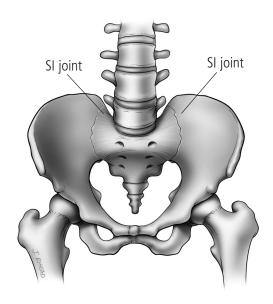




Facet joint injections are given into **facet joints**, the place where two vertebrae join together. These joints allow the spine to bend and twist. Facet joint injections can decrease inflammation caused by arthritis and joint degeneration.

Before having a facet joint injection, you may be given a diagnostic injection called a **medial branch block**. This injection is given near a nerve leading from the facet joint, and can help determine if the facet joint is the cause of the pain. If the medial branch block relieves the pain, your doctor may recommend a facet joint injection or neurotomy (described on a separate fact sheet).

Sacroiliac (SI) joint injections are given into the **SI joint**, located between the sacrum (at the base of the spine) and pelvic bones. The doctor injects an anti-inflammatory medication directly into the joint. The medication can reduce pain and inflammation in your lower back, buttocks, groin, and leg.



What happens after the procedure?

- You may stay in a recovery area and have your vital signs (heart rate, blood pressure, breathing rate) monitored.
- You should be able to walk immediately after the procedure. Some patients have leg weakness, numbness, or tingling for a few hours.
- You may be asked to fill out some paperwork before leaving.

What can I expect for pain relief?

- If your injection was meant to diagnose pain, you should feel relief right away from the anesthetic, but the relief will end in about an hour or so. You may need more than one injection for the doctor to diagnose the pain.
- If your injection was meant to reduce inflammation and relieve pain, it can take a few days, or even a week, to feel relief. Your pain will go away slowly and steadily. The injection may not relieve all your pain, but it may relieve enough of the pain to allow you to move around more easily. This can help you recover faster. How long you can expect pain relief to last depends on how many areas are injured and the amount of inflammation you have. Some people may need more than one injection to feel relief.

Going home

These are things to be aware of as you're recovering at home:

- **Driving home.** You may not be allowed to drive at all on the day of the procedure. Someone may need to drive you home. Your doctor will likely allow you to resume driving the next day.
- Possible side effects. You may experience briefly increased pain, headaches, or trouble sleeping. These should go away in the first few days.
- **Food and drink.** You may be asked not to eat or drink for a few hours.
- Activity. You may be asked to take it easy on the day
 of the injection. But it may help to get up and move
 around every hour or so. You should be able to resume
 normal activity the next day. Walk around if you feel
 up to it, but avoid activities that may strain your back.
- **Showering and bathing.** You can take a shower, but avoid baths or pools for 48 hours.
- **Returning to work.** Ask your doctor when you can return to work.
- **Follow-up.** Be SURE to follow up with your doctor in 2 weeks, or as otherwise instructed.

When to call the doctor

Call your doctor if you experience the following:

- Severe pain or headache
- Fever or chills
- · Loss of bladder or bowel control
- Redness or swelling around the injection site
- Weakness or numbness