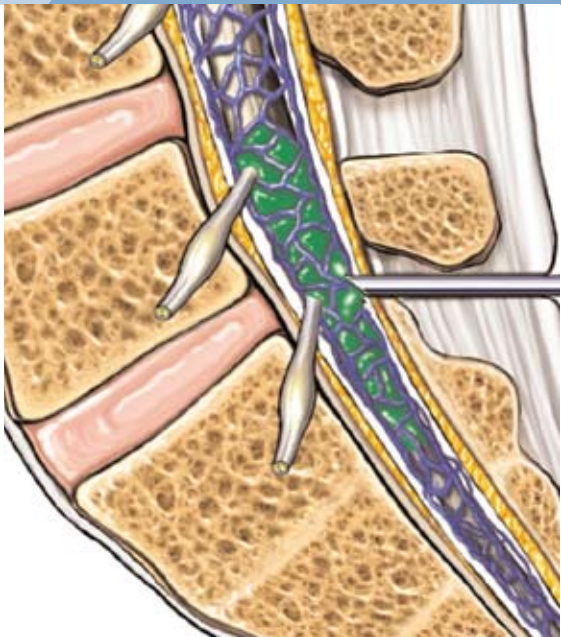


# Spinal Injections



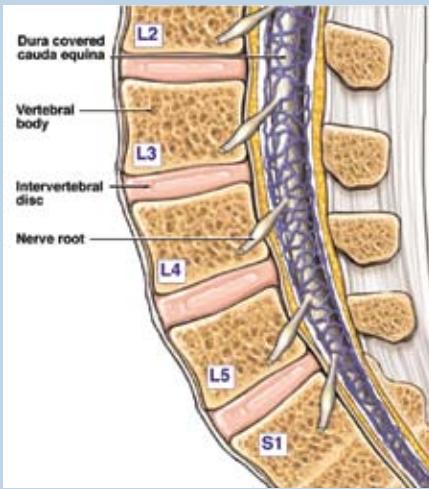
**North American Spine Society  
Public Education Series**

# What Is a Spinal Injection?

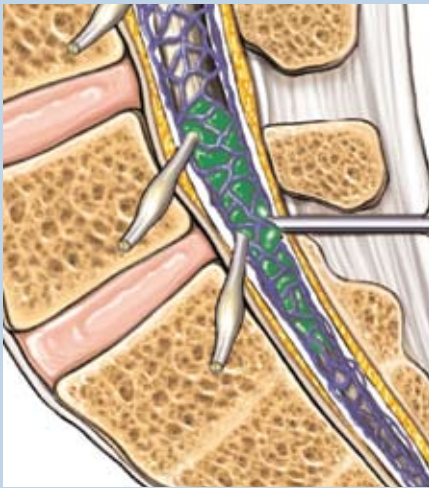
Your doctor has suggested that you have a spinal injection to help reduce pain and improve function. This procedure can help relieve pain by reducing inflammation (swelling and irritation). An injection can also help your doctor identify the source of your pain. The type of injection you receive is based on your specific symptoms and the findings of your physical examination.

## Spine Anatomy & Injections

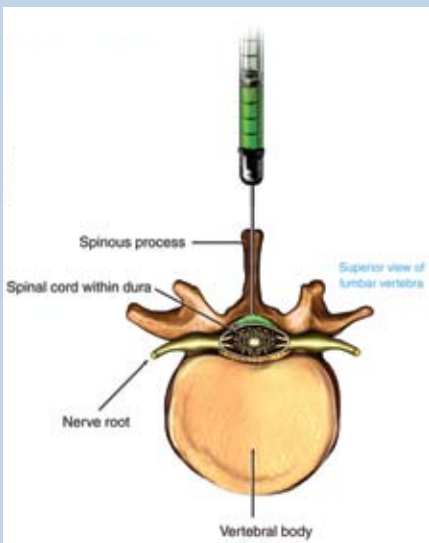
- Vertebrae are block-shaped bones that form your spinal column. Cervical vertebrae are located in the neck, thoracic vertebrae are located in the mid to upper back, and lumbar vertebrae are in the lower back.
- Discs are spongy shock absorbers between each of the vertebrae. A herniated disc or a disc with “wear and tear” may cause inflammation and pain.
- Spinal nerves are branches from the spinal cord exiting the spinal column. They transmit signals that control the movement of your muscles and provide sensation in your arms and legs. These nerves can be irritated or inflamed and cause pain.
- The epidural space is the space around the sheath (dura) covering the spinal nerves. Placing anti-inflammatory medicine in epidural space can help reduce spinal nerve inflammation.



Side view of lumbar spine in the lower back.



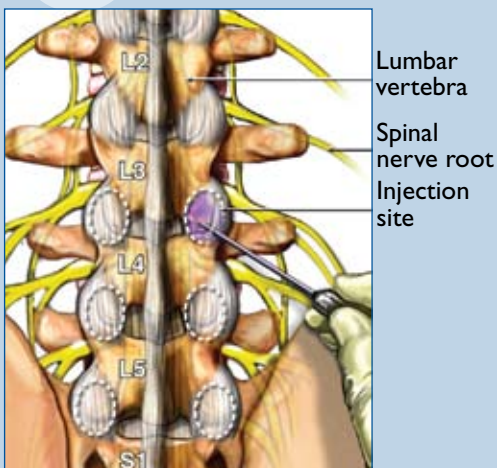
Anesthetic-steroid solution is injected through a catheter into the epidural space.



Top View of Injection. A needle is inserted from the back into the epidural space in the lumbar spine.

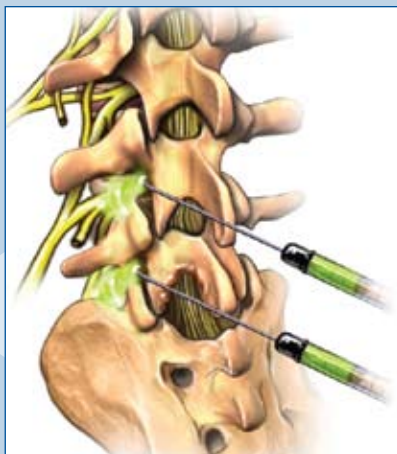
# Spine Anatomy & Injections

- Facet joints are small joints in the back of each vertebra. These joints can be irritated or inflamed and cause pain.



- ▲ Facet injections may be performed at one or more levels in the lower back.

- Nerve roots pass through side openings between vertebrae called intervertebral foramina. Irritation or inflammation of the nerve roots can cause pain.

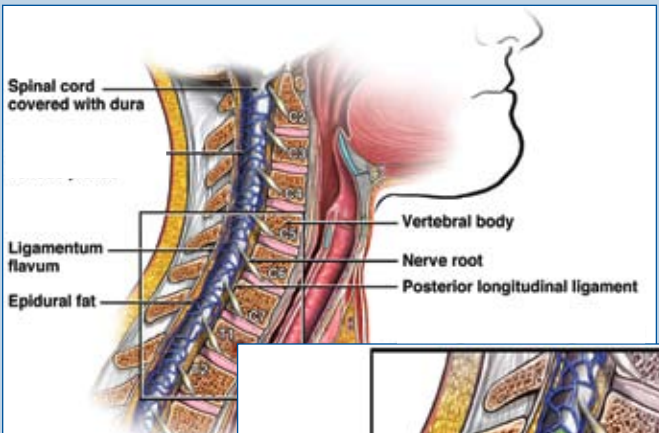


- ▲ Transforaminal epidural steroid injections may be performed at one or more levels in the lower back.

- Sacroiliac joints (SI joints) are formed by your lower spine (sacrum) and pelvic bone (ilium). Inflammation in these joints can cause low back, buttock and other pain.

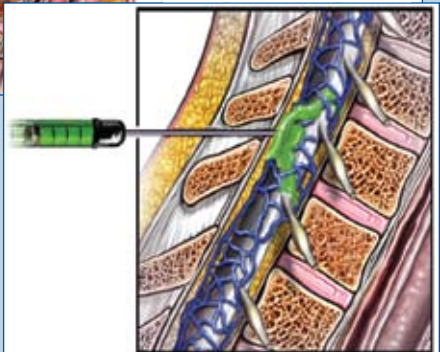


- Pain originating in the neck may be treated with injections.



⤴ Anatomy of the neck.

➤ A needle is inserted from the back between vertebrae into the epidural space.



# Preparing For Your Injections

A spinal injection is an outpatient procedure. Before your injection, you will be asked questions about your health and given instructions on how to prepare for the procedure, for example:

- Provide a list of the medicines you take, including blood thinners, aspirin, anti-inflammatory medicines such as ibuprofen, and over-the-counter and herbal medicines and supplements. You may need to stop taking some of these before the procedure—please ask your health care provider. Generally, you should continue to take medicines necessary to your health such as blood pressure or thyroid medicines. It is safe to take products containing acetaminophen (such as Tylenol™).
- Provide a list of any allergies you may have to medicines, latex or contrast dye.
- It is a good idea to arrive at your appointment with some of your usual pain present. This will make it easier to tell if the injection blocked your pain. This is why spinal injections are sometimes called “blocks.”
- Have someone available to drive you home after the procedure.
- It may be necessary not to eat or drink for six hours before the procedure—check with your health care provider. If you are taking medicine for diabetes, tell your doctor. Your medicine may have to be adjusted both before and after the injection.

- Bring any X-ray films and CT or MRI scans with you on the day of the procedure.
- If your health changes—if there is the possibility that you have a cold, flu or other illness—it is important that you tell your health care provider. He or she may want to reschedule the procedure.
- If you need to cancel your procedure, please notify your doctor as soon as you know.

## Checking In For Your Injection

- You should arrive a little early to fill out any necessary paper work before the procedure. Have your insurance information with you.
- For your benefit and safety, current medical information may be requested again. It is important to alert your doctor if you are experiencing any new or recent medical problems. Your doctor may give you a brief physical exam.
- You may receive an intravenous (IV) line before the procedure.

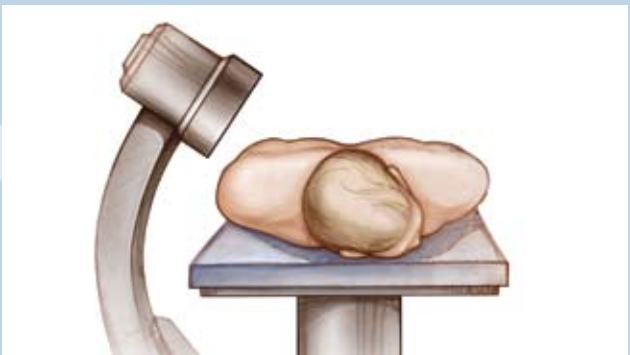
## Risks and Complications

All medical interventions have risks and benefits. Spinal injections have certain risks and complications that include:

- Spinal headache
  - Bleeding (rare)
  - Infection (rare)
  - Certain procedures may carry other risks.
- Your doctor will discuss these with you if it pertains to your situation.

## During the Procedure

- The procedure is usually brief, but your position during the procedure is important to make the injection go smoothly with the least discomfort to you. You may have monitoring devices attached to you during the procedure to check your heart rate and breathing.
- Your skin will be cleaned with a sterilizing solution and a sterile drape will be placed over your skin.
- Conscious sedation (use of a calming drug while you are awake) may be used if your doctor feels it is appropriate.
- Local anesthetic (lidocaine) is usually given near the injection site to numb the skin. This typically feels like a pin prick and some burning, like a bee sting.
- Fluoroscopy (X-ray imaging) is often used for precise placement of the injection. Contrast dye may be injected to confirm the correct placement of the needle.
- A local anesthetic for numbing (for example, lidocaine, bupivacaine) and/or steroids (to reduce inflammation) is injected.



▲ Patient undergoing fluoroscopic imaging.

## After the Procedure

- A small bandage may be placed at the injection site.
- You may spend time in a recovery area after the some injection procedures.
- You may be monitored to make sure you are doing well and your vital signs may be checked.
- You may be asked to fill out paper work before leaving.
- You should have someone drive you home.
- You may put ice packs on the injection site for 10–20 minutes at a time if there is soreness. Be careful not to burn your skin with the ice—place a towel between the ice and your skin.
- You may take a shower but avoid baths, pools or whirlpools for 24–48 hours following the procedure.
- You may be asked to relax on the day of injection, but usually can resume normal daily activities the day after the injection.
- You usually can start or resume your individualized exercise program or physical therapy program within one week of your injection.
- Side effects which may occur but go away in a few days include:
  - Briefly increased pain
  - Headaches
  - Trouble sleeping
  - Facial flushing
  - Hiccups







# After the Procedure

*Continued...*

- It takes a few days, even a week or longer, for the steroid medicine to reduce inflammation and pain.
- Your doctor may want to follow-up with you in 1–3 weeks.
- If you had sedation, you probably should not drive for 24 hours after the procedure.

Call your doctor or go to the emergency room if you experience any of the following:

- Severe pain or headache
  - Fever or chills
  - Loss of bladder or bowel control
  - Progressive weakness
  - Redness or swelling around the injection site
- 
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FOR MORE INFORMATION,  
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