

# Epidural Injection

For certain types of pain, your doctor may suggest an epidural injection. An epidural injection can be performed anywhere along the spine. The level of the injection determines the name of the procedure. If the injection is done in the tailbone area, it is called a **caudal** block. The epidural space can also be injected in the neck (**cervical**), chest (**thoracic**) or the low back (**lumbar**).

## The Anatomy

The **vertebrae** are the bones that form the spine. Our **spinal cord** is located within a bony tunnel in the back of our spine. Nerves branch off of the spinal cord and exit between the vertebrae. Pressure on these nerves may cause inflammation to develop. An inflamed nerve in your spine may cause pain in the spinal area or in the area that nerve supplies, such as the arms, the chest or the legs.

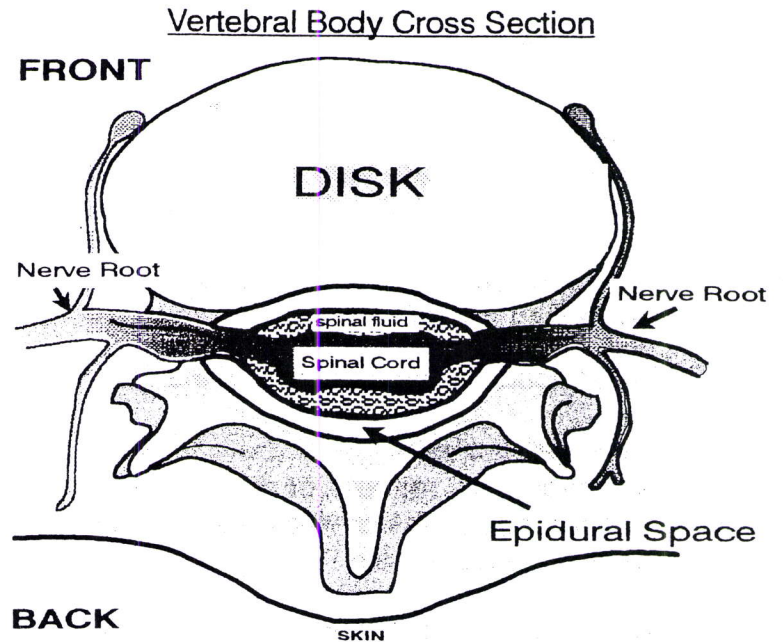
## The Epidural Injection

The spinal cord floats in a spinal fluid filled tube called the **dura**. Outside of the dura is a hollow space called the **epidural space**. An anti-inflammatory medication injected into the epidural space will bathe the inflamed nerve or other tissues. This may shrink swelling and help to heal inflammation, allowing pain to diminish or stop.

## The Procedure

The treatment may be done in the office. In some instances, fluoroscopy (video x-ray) may be needed to visualize the spine during the procedure. In those situations, the injection is done as an outpatient at a hospital or surgery center. During the treatment:

- The skin over the injection site is cleaned with an antiseptic. A tiny needle the size of a hair is used to administer a local anesthetic which numbs the skin and underlying tissues.
- Using another small needle, the injection is given. It usually contains a local anesthetic and a corticosteroid (a medication that reduces inflammation).



## **After the Procedure**

Most patients are able to go home within 10 to 30 minutes after the treatment. The local anesthetic wears off in a few minutes. When it does, your neck or back may temporarily feel more uncomfortable than usual. This is normal. Take it easy for the rest of the day. The corticosteroid (anti-inflammatory medication) may take 2 to 5 days to begin to work. Usually one injection is sufficient. However, sometimes a second or even third injection is required for better pain relief.

## **The Corticosteroid**

The anti-inflammatory medication is a synthetic cortisone-type medication called Depomedrol. Despite rumors to the contrary, the synthetic cortisone-type medications, in the doses used for epidural injections, are very safe and are unlikely to cause any permanent problems. Aside from the first few minutes from the local anesthetic, the injection will not cover up or "mask" your pain.

## **When to Call Your Doctor**

Call your doctor if you have any of the following:

- Severe headaches
- Fever over 101°, redness or drainage at the injection site
- Increased numbness or weakness in your arms or legs
- Severe increase in pain

## **Risks and Complications**

Risks and complications are rare, but can include:

- Infection
- Headaches
- Prolonged increase in pain
- Nerve damage (very rare)
- Bleeding or fluid leakage in the spinal cord (very rare)

## **Precautions**

Because of the risk of bleeding, people who are on anticoagulants (Coumadin, Warfarin) should not receive an injection.