

## What is an epidural injection?

An epidural injection is a procedure in which a needle is placed in the epidural space (a space in the spine that sits around the sac that holds the spinal cord and nerves). The nerve roots that come off the spinal cord travel through this space. The intervertebral disk also sits adjacent to it.

In an epidural injection, the needle is passed through the skin, subcutaneous tissues and spinal ligaments, and into the epidural space. In a **lumbar** epidural injection, the needle is inserted between the vertebral bones of the lower spine. In a **transforaminal** epidural injection, the needle is inserted into the neuroforamen (the space where the nerve root exits). In a **caudal** epidural injection, the needle is inserted near the tip of the tailbone (the sacrum) into a small opening called the sacral hiatus. A caudal approach is usually used for patients with problems occurring in the lowest segments of the lumbosacral spine. After proper placement of the needle, a solution typically consisting of a corticosteroid (“cortisone”) and anesthetic (lidocaine) is injected.

## What is the purpose of an epidural injection?

The primary purpose is to reduce inflammation resulting from injury to the nerve root or disk, thereby decreasing pain in the back and legs. Additionally, by reducing inflammation and swelling, this will hopefully allow for a more rapid recovery.

## When will I notice improvement and how long will it last?

Patients will typically begin to notice improvement in their pain in two to three days – although it may take longer. In some instances, a patient may not have any noticeable improvement after one injection. Up to three injections may be required, and these are typically spaced two weeks apart in order to achieve maximum pain relief.

If the injection is effective, the duration of pain relief may be very long lasting, particularly if there is significant reduction in the inflammation. Typically, patients report improvement lasting anywhere from several days to months and longer.

## What are the risks?

There are minimal risks associated with any injection, but adverse effects are very uncommon. These effects include localized bleeding, infection, and very rarely, an allergic reaction to the medications. Some patients may have a temporary increase in back pain following the injection. A headache sometimes occurs and this is commonly relieved by lying down. Occasionally, patients will experience side effects from the corticosteroid, including changes in mood, appetite and sleep. These are temporary and usually last only a few days.