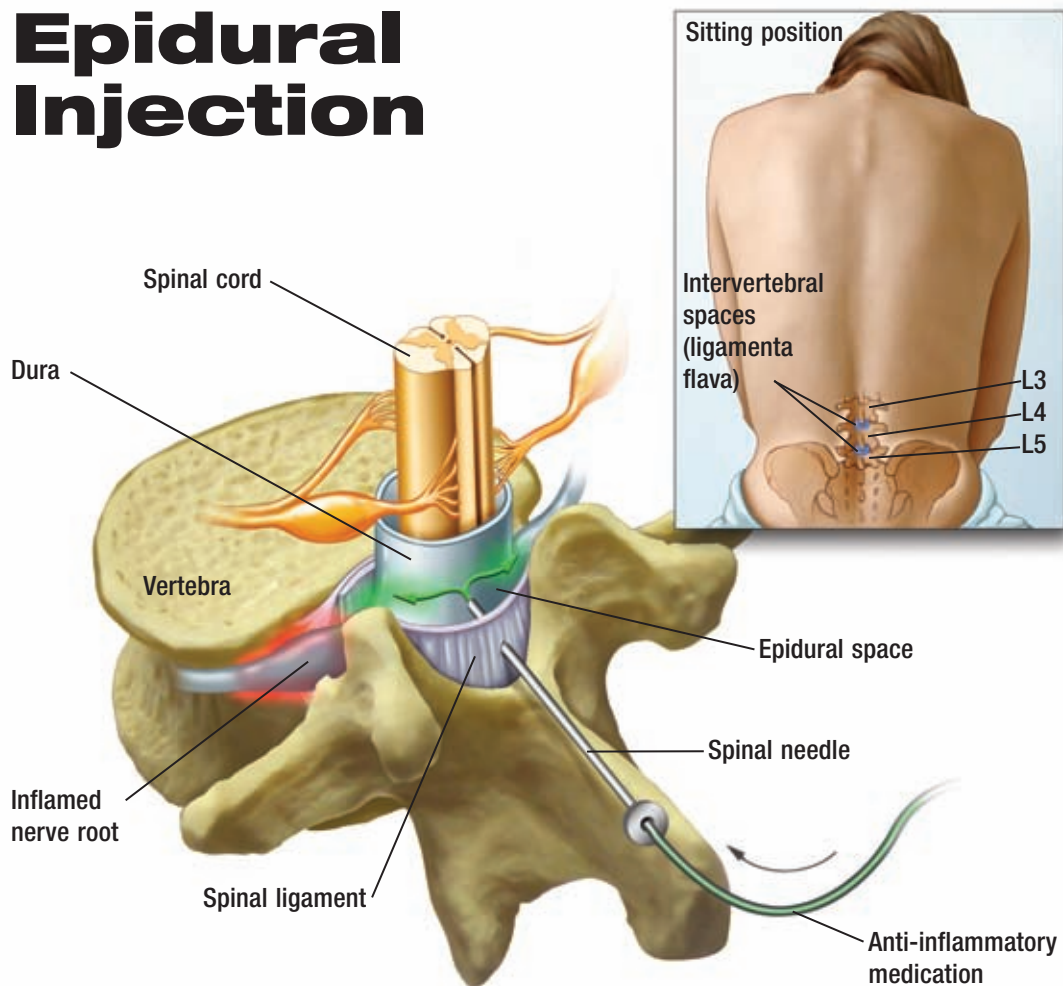


Epidural Injection



A Type of Spinal Block

Pain in the arms, neck, lower back, or legs may be the result of pressure on a spinal nerve due to inflammation. This pain can be treated with oral anti-inflammatory medications, but when these drugs are not effective, an epidural injection may be indicated. In this procedure, anti-inflammatory medication is injected into the epidural space, the area between the covering of the spinal cord and the bony vertebra of the spine. An epidural injection does not treat the cause of the pressure on the spinal nerves. The medication in an epidural injection relieves the swelling and inflammation, which reduces the pressure on the affected nerves and temporarily relieves the pain.

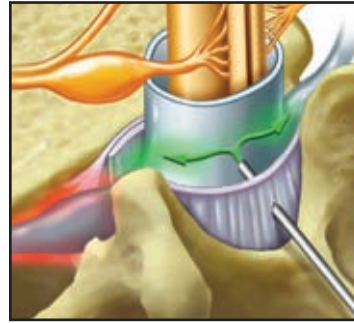
Typically, an epidural injection includes a corticosteroid, such as methylprednisolone, betamethasone, or triamcinolone, plus a small amount of a local anesthetic, such as lidocaine or bupivacaine. The corticosteroid acts over a period of time to reduce the swelling and inflammation, while the anesthetic provides quick pain relief.

Epidural injections are safe when performed properly, but no more than three epidural injections are recommended within a 12-month period. This limitation is due to the corticosteroid's side effects, including bone weakening, thinning of the skin, and water retention.

Epidural injections often successfully relieve pain for a period of weeks or even longer. The corticosteroid in an epidural injection works over a period of weeks to months, but it is not a cure. In many cases, the inflammation and swelling recur and the pain returns. However, an epidural injection can relieve pain long enough for the patient to begin a comprehensive rehabilitation program, including physical therapy, without pain.

One Component of Therapy for Chronic Pain Caused by Spinal Nerve Irritation

Pressure on the spinal nerves can occur for various reasons, including spinal stenosis (narrowing of the spinal passage), herniated disc, disc degeneration, or slipped disc (spondylolisthesis), among other conditions. Any of these conditions results in pressure on the nerves that control the arms or legs, depending on the nerves' location along the spinal cord. The result is pain, typically in the arms and neck (upper spine) or the lower back and legs (lower spine). Epidural steroid injections can help shrink inflammation and relieve pressure on the affected nerves, providing pain relief and allowing greater mobility during therapy.



Anti-inflammatory medication is injected into the epidural space, which surrounds the spine.

What to Expect

Epidural injections are administered in an outpatient facility. The procedure requires the patient to lie face-down on a table, and a local anesthetic is used to numb the area of the skin where the needle will be inserted. The patient can receive a mild sedative before the procedure, if so wished. A thin needle is placed as close to the irritated nerve as possible, so that the medication will reach the epidural space. A special x-ray is used to place the needle correctly, and contrast dye helps confirm needle placement before the medication is administered. There is a sensation of pressure as the injection is given, but usually there is no pain. The patient is allowed to walk around after a brief period of observation, and then may be driven home. Most patients can resume their normal level of activity the next day. There may be some mild soreness around the area of injection for a day or two, but this can be relieved with acetaminophen. Other immediate side effects of an epidural injection include a flushed feeling, nausea, insomnia, and water retention. Mild numbness or muscle weakness in the affected arm or leg may occur for a few hours after the injection.

Effectiveness of the Procedure

Pain relief may occur as early as the first week after the injection. If the pain is not relieved by the first epidural injection, a second and even third injection may be given, usually 2 weeks apart. However, no more than three injections can be administered over a 12-month period. About 50% of patients who find relief after epidural injections have a recurrence of pain by 12 months.

Epidural injections are effective for about two-thirds of patients who have had pain for 6 months or less. Pain that has been present for more than a year is relieved in about one-half of patients who receive an epidural injection.

Cautions and Complications

Patients with diabetes or heart disease must check with their physician before receiving an epidural injection because the corticosteroid can cause a rise in blood sugar and blood pressure. Patients on blood thinners must be able to discontinue this medication several days before the procedure. Epidural injections are not given during pregnancy, in the presence of active infection, or in patients with a bleeding disorder or an allergy to contrast dyes. Rarely, complications from epidural injections may occur, such as headache, infection, bleeding, paralysis, or allergic reaction. In general, epidural injections are safe and effective if administered in the proper facility by trained and experienced staff.

Epidural injections are just one part of a treatment plan for patients with chronic pain due to spinal nerve irritation. If appropriate, rehabilitation should also include weight loss or proper weight maintenance, psychological therapy for chronic pain, oral pain medications or anti-inflammatory medications, and physical or occupational therapy for conditioning.