Epidural Injection Procedure

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The epidural steroid injection procedure takes place in a surgery center, hospital, or a physician’s clinic. Many types of physicians can be qualified to perform an epidural steroid injection, including an anesthesiologist, radiologist, neurologist, physiatrist, and surgeon.

Preparing to Receive an Epidural Steroid Injection

Patients may be asked to change into a hospital gown, which allows for access to clean the injection area and to allow the physician to easily visualize the injection site. An epidural steroid injection usually takes between 15 and 30 minutes and follows a relatively standard protocol:

- The patient lies flat on an X-ray table or with a small pillow under their stomach to slightly curve the back. If this position causes pain, the patient can be allowed to sit up or lie on their side in a slightly curled position.
- The skin in the low back area is cleaned and then numbed with a local anesthetic similar to what a dentist uses.
- Using fluoroscopy (live X-ray) for guidance, a needle is inserted into the skin and directed toward the epidural space. Fluoroscopy is considered important in guiding the needle into the epidural space, as controlled studies have found that medication is misplaced in many (> 30%) of epidural steroid injections that are done without fluoroscopy.

Once the needle is in the proper position, contrast is injected to confirm the needle location. The epidural steroid solution is then injected. Although the steroid solution is injected slowly, most patients sense some pressure due to the amount of the solution used (which in lumber injections can range from 3mL to 10mL, depending on the approach and steroid used). The pressure of the injection is not generally painful.

Following the injection, the patient is monitored for 15 to 20 minutes before being discharged home.

Sedation is available for patient anxiety and comfort. However, sedatives are rarely necessary, as the epidural steroid injection procedure is usually not uncomfortable. If a sedative is used, some patient precautions should be taken, including not eating or drinking for several hours prior to the procedure and having a guardian available for discharge. A patient should contact his or her doctor for specific instructions.

Tenderness at the needle insertion site can occur for a few hours after the procedure and can be treated by applying an ice pack for 10 to 15 minutes once or twice an hour. In addition, patients are usually asked to rest for the remainder of the day on which they have the epidural steroid injection. Normal activities (those that were done the week prior to the epidural injection) may typically be
resumed the following day. A temporary increase in the pain can occur for several days after the injection due to the pressure of the fluid injected or due to local chemical irritation.

In addition to understanding the general protocol and time involved in the procedure, patients should discuss with their clinician and physician whether pain medications (or certain other medications) can be taken on the day of the injection.

**Number and Frequency of Epidural Steroid Injections vary**

There is no definitive research to dictate how many epidural steroid injections should be administered or how frequently they should be given. In general, the consensus is to perform up to three epidural injections per year, which is about the frequency that many arthritis patients receive cortisone shots for shoulder and knee pain. Different strategies are used:

- Some doctors will space the injections out evenly over a year.
- Others take a different approach and administer two or three epidural steroid injections at 2-4 week intervals, if the first shot results in significant pain relief.

There is no general consensus in the medical community as to whether or not a series of three injections should be performed. If a patient does not experience any back pain or leg pain relief from the first epidural injection, further injections may not be beneficial.