Epidural Injection

Spinal injections are used for both treatment and diagnostic purposes. There are several different types of spinal injections that your doctor may suggest. These injections usually use a mixture of an anesthetic and some type of cortisone preparation. The anesthetic is a medication that numbs the area where it is injected. If the injection takes away your pain, this gives your doctor important information suggesting that the injected area is indeed the source of your pain. The cortisone decreases inflammation and can reduce the pain from an inflamed nerve or joint for a prolonged period of time.

Some injections are more difficult to perform and require the use of a fluoroscope. A fluoroscope is a special type of X-ray that allows the doctor to see an X-ray picture continuously on a TV screen. The fluoroscope is used to guide the needle into the correct place before the injection is given.
Epidural Steroid Injections are very useful procedures doctors use not only to alleviate pain, but also as a diagnostic tool. These injections allow doctors to inject many nerves at the same time when injection is placed “on-top-of-dura” or selectively, if a single nerve is chosen for injection. The later helps determining if a single nerve is the ultimate cause if pain and disability.

An epidural injection is one of many methods doctors use to relieve pain, along with physical therapy, nerve blocks, oral medications and surgery.

An epidural injection may be performed to alleviate pain caused by:

- A cervical or lumbar herniated or bulging disk
- Cervical or lumbar Spinal stenosis
- Other injuries to spinal nerves, vertebrae and surrounding tissues

The injection is delivered into the epidural space of the spine to provide temporary or prolonged relief from pain or inflammation. Steroids, anesthetic or anti-inflammatory medications are typically delivered in an epidural injection. The injection may reduce pain and swelling in and around the spinal nerve roots, as well as around damaged nerves, which in time may heal.

Our interventional radiologist utilizes guided imagery by fluoroscopy to help target the exact location of pain so the patient can receive the maximum benefit from the injection.

What is an Epidural Steroid Injection?
Epidural Steroid Injection is an injection of long lasting steroid in the Epidural space – that is the area, which surrounds the spinal cord and the nerves coming out of it.

What is the purpose of it?
The steroid injected reduces the inflammation and/or swelling of nerves in the Epidural space. This may in turn reduce pain, tingling and numbness and other symptoms caused by nerve inflammation / irritation or swelling.
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How long does the injection take?
The actual injection takes only a few minutes.

What is actually injected?
The injection consists of a mixture of local anesthetic (like lidocaine or bupivacaine) and the steroid medication (triamcinolone – Aristocort® or methylprednisolone – Depo-medrol®, Celestone-Soluspan).

Will the injection hurt?
The procedure involves inserting a needle through skin and deeper tissues (like a "tetanus shot"). So, there is some discomfort involved. However, we numb the skin and deeper tissues with a local anesthetic using a very thin needle prior to inserting the Epidural needle. Also, the tissues in the midline have less nerve supply, so usually you feel strong pressure and not much pain. Most of the patients also receive intravenous sedation and analgesia, which makes the procedure easy to tolerate.

Will I be "put out" for this procedure?
No. This procedure is done under local anesthesia. Most of the patients also receive intravenous sedation and analgesia, which makes the procedure easy to tolerate. The amount of sedation given generally depends upon the patient tolerance.

How is the injection performed?
It is done either with the patient sitting up or on the side, or on your stomach. The patients are monitored with EKG, blood pressure cuff and blood oxygen-monitoring device. The skin in the back is cleaned with antiseptic solution and then the injection is carried out. After the injection, you are placed on your back or on your side.

What should I expect after the injection?
Immediately after the injection, you may feel your legs slightly heavy and may be numb. Also, you may notice that your pain may be gone or quite less. This is due to the local anesthetic injected. This will last only for a few hours. Your pain will return and you may have a "sore back" for a day or two. This is due to the mechanical process of needle insertion as well as initial irritation form the steroid itself. You should start noticing pain relief starting the 3rd day or so.
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What should I do after the procedure?
You should have a ride home. We advise the patients to take it easy for a day or so after the procedure. Perform the activities as tolerated by you.

Can I go back to work the next day?
You should be able to unless the procedure was complicated. Usually you will feel some back pain or have a "sore back" only.

How long the effect of the medication last?
The immediate effect is usually from the local anesthetic injected. This wears off in a few hours. The cortisone starts working in about 3 to 5 days and its effect can last for several days to a few months.

How many injections do I need to have?
If the first injection does not relieve your symptoms in about a week to two weeks, you may be recommended to have one more injection. Similarly if the second injection does not relieve your symptoms in about a week to two weeks, you may be recommended to have a third injection.

Can I have more than three injections?
In a six month period, we generally do not perform more than three injections. This is because the medication injected lasts for about six months. If three injections have not helped you much, it is very unlikely that you will get any further benefit from more injections. Also, giving more injections will increase the likelihood of side effects from cortisone.

Will the Epidural Steroid Injection help me?
It is very difficult to predict if the injection will indeed help you or not. Generally speaking, the patients who have "radicular symptoms" (like sciatica) respond better to the injections than the patients who have only back pain. Similarly, the patients with a recent onset of pain may respond much better than the ones with a long standing pain. Also, the patients with back pain mainly due to bony abnormality may not respond adequately.

What are the risks and side effects?
Generally speaking, this procedure is safe. However, with any procedure there are risks, side effects, and possibility of complications. The most common side effect is pain – which is temporary. The other risk involve spinal puncture with headaches, infection, bleeding inside the Epidural space with nerve damage, worsening of symptoms etc. The other risks are related to the side effects of cortisone: These include weight gain, increase in blood sugar (mainly in diabetics), water retention, suppression of body’s own natural production of cortisone etc.

Who should not have this injection?
If you are allergic to any of the medications to be injected, if you are on a blood thinning medication (e.g. Coumadin, Plavix), or if you have an active infection going on, you should not have the injection.