

## Epidural Steroid Injection

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Epidural steroid injection is the placement of a cortisone-like medication, (a potent anti-inflammatory agent), into the epidural space, which is in close proximity to the spinal elements, i.e., intervertebral disk, spinal canal, and nerve roots that exit the spinal canal.

Epidural steroid injection has been used for over 60 years as non-surgical treatment option for discogenic back pain. It involves the use of deposit steroids and in some instances local anesthetic agents, allowing excellent and prompt benefits with minimal risk factors.



The main goal of an epidural steroid injection is to “shrink” the swelling in bulging or herniated discs, and to decrease the intense tissue inflammatory response that surrounds a disc herniation, and or bulging, and which may be pressing/irritating a nerve root or spinal nerve.

This is fairly common procedure. Because of the low risk and low incidence, this is felt to be a reasonable option to follow when traditional conservative therapy for discogenic pain has failed to provide improvement.

A large number of patients whom undergo this procedure will obtain complete resolution of their symptoms; however, a small percentage may experience no significant improvement at all.

It is generally an accepted practice to repeat up to three times these epidural steroid injections, typically within two week intervals to achieve maximum benefit; however in some cases, additional injections may be required to be administered. As mentioned above, these injections may be given as a single dose, or once every two weeks, for up to three times. Additional injections have additive effect.

In experienced hands, side effects and adverse reactions are very rare. Some of these potential (uncommon) side effects include steroid induced fluid retention, some weight gain, and rarely, behavioral changes.

An additional risk is the possibility for “spinal tap” which occurs when the epidural needle nicks a small rent or hole in the dura (a membrane which cover the spinal cord).

Should this occur, there would be a leakage of cerebrospinal fluid, which could cause an intense “spinal headache” only as the patient is sitting, or standing, but which will be gone as he or she lies down. Should this happen, bed rest and an increase in fluid and caffeine intake frequently will alleviate the headache completely. Should this not resolve the problem, it could be necessary to do what is called a “blood patch,” in which (under sterile, aseptic conditions) blood is removed from a vein in the arm and placed into the same epidural space. This completely resolves symptoms of the headache. The incidence of a spinal headache is approximately 1 in 1,000, and occurs in a patient about once every year.

As you can see it is very rare. Since this is the most common adverse event that may occur from epidural injections, the remaining potential complications should not scare you, but make you more informed.

Other potential risks include: worsening of symptoms, bleeding, infection, backache, steroid side effects, bowel or bladder dysfunction, hematoma, cord compression, paralysis, neurological damage or impairment. One of the most serious side effects (which is extremely rare) is the development of an epidural infection or abscess. In order to avoid these complications, the procedure is done under strict sterile conditions, utilizing fluoroscopy to localize the epidural space and guide the needle.

If there is improvement from the epidural steroid, it will likely occur over the next several days to two weeks after the procedure. The improvement should not be expected immediately. Patients are advised to rest on the day of the epidural, although bed rest, while preferable, is not required. By the next day, previous activities can be resumed. An occasional patient will feel such significant relief that they are tempted to resume various strenuous activities. They are cautioned not to do this, however. It is generally advised to pursue a course of gradual increase in activity, often coordinated with physical therapy or other training once the injections have been completed.

Patients are usually seen again 8-10 weeks following the completion of the treatment to evaluate their response.