

# **EPIDURAL STEROID INJECTION**

## **Frequently Asked Questions**

### **1. What is an Epidural Steroid Injection?**

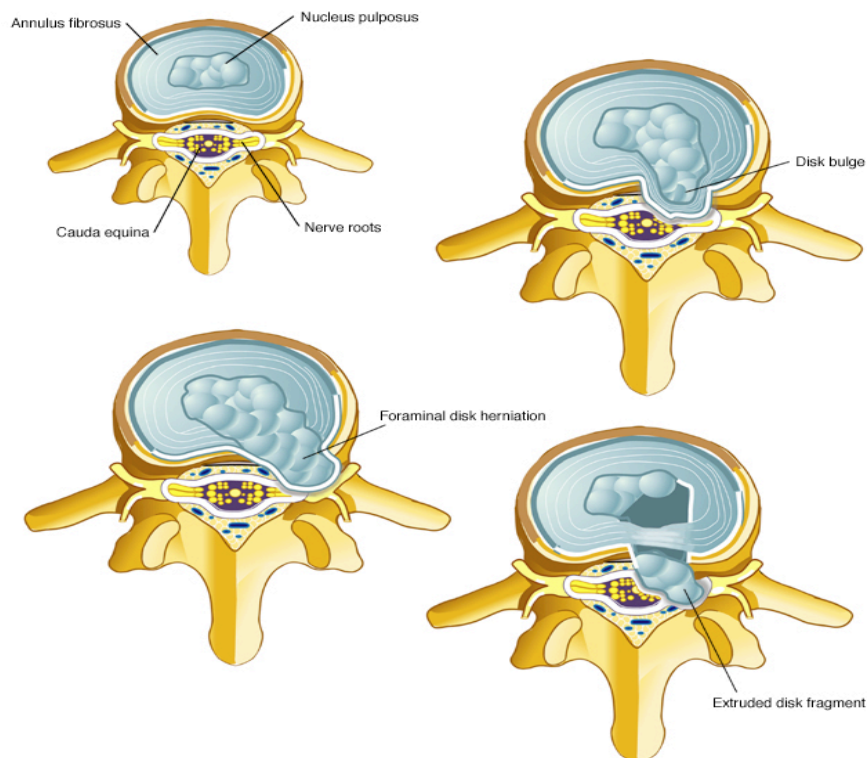
An Epidural Steroid Injection (ESI) is a simple, safe, and effective non-surgical treatment that involves the injection of a steroid medication like cortisone into the **Epidural Space** of the spine. The epidural space is the area of the spine where inflamed nerves are located. The intent of this procedure is to **REDUCE INFLAMMATION** and relieve pain. Performed by an anesthesiologist or specialist in interventional pain management, ESI is a minor 5 – 10 minute procedure used to relieve a variety of painful conditions, including chronic pain anywhere in the spine.

### **2. About the STEROIDS used during ESI:**

The medication that is injected into the epidural space during ESI is a CORTICOSTEROID and is similar to the steroids that are produced naturally by your adrenal gland. In contrast, an anabolic steroid is used illegally by individuals to build and repair muscle and is never injected into the spine. Corticosteroids are relatively harmless when properly utilized for spinal injections in non-diabetic patients. **Dr. Siegel's practice utilizes BETAMETHASONE that is purchased from a major pharmaceutical manufacturer and never from a compounding company.**

### **3. How does inflammation in the spine cause pain?**

Studies of the intervertebral disc have shown that it contains a number of chemicals that are very potent mediators of inflammation. With injury or disc degeneration, the outer layer of a disc (annulus fibrosis) can develop a rent or tear allowing inflammatory chemicals in the center of the disc (nucleus pulposus) to leak out and reach nerve roots and other pain-carrying nerves located behind the disc. When nerves are exposed to these inflammatory chemicals, they become swollen and painful and are much more active in transmitting pain signals. The diagrams below (left to right) are examples of a normal disc, bulging disc, foraminal disc herniation, and extruded disc herniation.



#### **4. Does the injection repair a damaged spine?**

As noted above this treatment works by reducing inflammation and does not actually repair a damaged disc. It will not push a ruptured disc back into place or otherwise change spinal anatomy. Studies have shown that up to 30% of healthy asymptomatic individuals have herniated discs in their spine. Therefore a disc herniation can in some cases be rendered painless by eliminating inflammation. The goal of treatment is therefore to reduce inflammation and strengthen the spine with spinal rehabilitation.

#### **5. If this treatment does not repair the spine, why have it done?**

The spine can heal. There are numerous case studies that demonstrate resolution of a disc herniation with time. The same mechanism that the human body uses to clean up damaged tissue elsewhere occurs in the spine. The process may take up to two years but certainly can occur. Therefore ESI may enable this process by reducing inflammation, reducing pain, facilitating rehabilitation, and allowing your body the time it needs to repair itself.

#### **6. How is this injection performed?**

ESI is performed with X-Ray guidance (fluoroscopy) while the patient lying on his or her stomach. The injection is performed under local anesthesia and, on occasion, with oral or intravenous sedation. Patients are **not** deeply sedated or completely asleep for this procedure because it is unnecessary and in some cases dangerous. The injection usually takes around 5-10 minutes, followed by a brief recovery before discharge home. Procedures are usually performed in an office or outpatient surgery center and occasionally in a hospital when patients are hospitalized with severe, intractable pain.

#### **7. What types of conditions will respond to Epidural Steroid Injection?**

For over fifty years ESI has been used to effectively treat chronic neck and back pain as well as a variety of other conditions. The most common problems treated with ESI include herniated or bulging discs, spinal stenosis, and recurrent pain following spine surgery. Patients who respond best are those with pain that radiates into an extremity due to nerve root inflammation. Other conditions that may also respond to ESI include spondylolisthesis (slippage of the vertebral column) and post-herpetic neuralgia (pain after shingles).

#### **8. Does the injection hurt?**

The injection of local anesthetic (numbing medicine) at the beginning of the procedure may sting some, but ESI is an otherwise minor procedure that is extremely well tolerated by patients ranging in age from the mid-teens to well over ninety years old. If you are anxious or concerned about pain during the procedure, please discuss with the doctor the possibility of your receiving oral or intravenous sedation.

#### **9. How many injections will I need during my treatment?**

Treatment starts with the first injection only. If the first injection provides significant pain relief ( $\geq 50\%$ ) it can be repeated 4-6 weeks later. However, if the first injection does not relieve pain or if relief is only brief in duration, ESI is not likely to be repeated. In this instance another intervention may be considered, including but not limited to treatments for facet joint or sacroiliac joint pain or even surgery. Alternately, if one has no pain following the first injection, additional injection therapy is not usually necessary. If you are not sure whether you should have an additional injection or if you feel that a different type of or treatment should be considered, please contact the doctor's staff well in advance of your next appointment to discuss your situation.

#### **10. What are the chances that this treatment will help my pain?**

In general ESI helps relieve pain for approximately half (50%) of the patients treated. The degree and duration of pain relief are variable and depend on many different factors, including the nature of the condition responsible for pain, duration of symptoms before treatment, whether previous back (neck) surgery has been performed and other factors.

### **11. Can these injections be repeated if my pain returns?**

YES! Epidural Steroid Injection can definitely be repeated if it was helpful for your pain in the past. Although there is some flexibility in the timing of repeat treatment, Dr. Siegel will probably want you to wait for at least a few months after your last injection. This issue should be discussed during a follow-up office visit.

### **12. What should I do to prepare for my injection?**

On the day of your injection, you should not have anything to eat or drink for at least four (4) hours before your scheduled procedure. **If you are scheduled to receive any type of sedation before or during the procedure, you must have someone available to drive you home.** If you take medication for high blood pressure or any kind of heart condition, it is very important that you take these medications at their usual times with some sips of water before your procedure.

If you are taking any type of **blood thinner medication**, you will need written permission from the prescribing physician to stop this medication before a procedure can be scheduled. Anticoagulants are usually prescribed to protect one against stroke, heart attack, or other vascular occlusion event. Therefore the decision to discontinue one of these medications is not made by the pain management physician but rather by the primary care or specialty physician (cardiologist / neurologist) who prescribes and manages that medication. Examples of blood thinner medications that could cause excessive bleeding inside or around the spine include **Coumadin, Plavix, Aggrenox, Effient, Pradaxa, Pletal, Ticlid, Lovenox, and Fragmin.**

### **13. What should I do after my injection?**

Following discharge home, you should plan on simple rest. If you have pain at the injection site, application of an ice pack to this area will be helpful. If you receive oral or intravenous sedation, you should not drive a car for at least eight hours. Patients are generally advised to go home and not return to work after this type of injection. Most people do return to work the next day.

### **14. What should I expect after the injection?**

You may notice some reduction in your pain for the first 1-2 hours after the injection if local anesthetic is injected with the steroid. When this anesthetic wears off, your pain will return as it was before the procedure. Pain relief with ESI may take up to four weeks to manifest, but many patients experience improvement before this time period.

### **15. Could there be side effects or complications?**

Minor side effects from the injected medications are not uncommon and can include nausea, itching, rash, facial flushing and sweating among other things. Some patients notice a mild increase or worsening of their pain for the first day or two after injection. Diabetic patients may note a rise in blood sugar due to the steroid contained in this injection. Fortunately Epidural Steroid Injection has an extremely good safety profile, and serious complications are quite rare. Your doctor will discuss these issues with you, and you will be asked to carefully read and sign a consent form before any procedure is performed.