



Institute for Low Back and Neck Care

*Physicians dedicated to relieving pain
and improving function*



For any questions, please call your
physician's medical secretary at
952-814-6600.

Diagnostic & Therapeutic Injections

*Hardware Injections
Pars Injections
Sacroiliac Joint Injections
Trigger Point Injections
Trochanteric Bursa Injections*



Introduction

At times it is difficult for the doctor to determine what specifically is causing a patient's pain.

Diagnostic and therapeutic injections can help the doctor to identify the cause of pain; therefore, making the plan of treatment more focused and more effective. Finding a specific diagnosis leads to better treatment and better outcomes for the patient.

Injections can be performed for diagnostic and therapeutic purposes, but commonly they are done both diagnostically and therapeutically at the same time.

Diagnostic Injection

A local anesthetic is used to determine if the pain is coming from a specific location by temporarily blocking the pain. This pain relief only lasts until the anesthetic wears off.

Therapeutic Injection

A steroid (usually triamcinolone) is injected to decrease inflammation and swelling that may be present in a specific location. Hopefully, decreasing the inflammation will reduce the patient's pain. The steroid usually starts to work in 2-3 days, but the optimal effects are not known until 1-2 weeks after the

injection. The duration and extent of pain relief from therapeutic injections vary from person to person.

Preparing for an Injection

- There are no special dietary instructions for any of these procedures.
- While the procedure may take less than 30 minutes, you will need to allow for at least 1 to 2 hours at the procedure center.
- If you are taking prescription blood thinners such as Coumadin, Plavix, and Ticlid, please inform your doctor's secretary. These medications will need to be stopped before the procedure, *but only after you receive permission from the doctor who is prescribing these medications.*
- If you develop a fever, night sweats, or an active infection, your procedure will need to be rescheduled. Please contact our office at **952-814-6600** immediately to inform us of change in condition.

Hardware Injection

This injection is ordered if a patient's pain may be caused by hardware/instrumentation placed during a previous lumbar fusion surgery. In the prone (laying face down) position, with a pillow underneath the abdomen, the skin over the lumbar region is sterilely prepared. The skin is anesthetized and a thin needle is advanced under x-ray guidance on to the pedicle

screw heads or the region of hardware, if not pedicle screws. A small volume of contrast dye is injected to prove that the medication will flow in the region of the hardware and a small volume of anesthetic and/or steroid solution is then injected.

Pars Defect Injection

The purpose of this injection is to see if the patient's pain is coming from a small fracture in the area of the vertebrae called the pars. The patient is placed in the prone (laying face down) position with a small pillow under the abdomen. The skin over the lumbar region is sterilely prepared and then anesthetized. A thin needle is then advanced under x-ray guidance into the pars defect region. A small volume of contrast dye is injected to prove that the medication will stay in the pars defect region. A small volume of anesthetic and/or steroid is then injected.

Sacroiliac Joint Injection

The purpose of this injection is to reduce painful inflammation and swelling in this joint located between the sacrum and the pelvis. In the prone (laying face down) position, with a pillow under the pelvis, the lower aspect of the sacroiliac joint to be injected is imaged under x-ray guidance. The skin over the area is sterilely prepared and then the skin over the joint is anesthetized. A thin needle is advanced under x-ray guidance into the lower portion of the sacroiliac joint. A small volume of contrast dye is then injected to prove that the medication will flow within the joint. Then a small volume of anesthetic and steroid solution is injected.

Trigger Point Injection

Trigger points are an area of tenderness within muscles that can be caused by muscle abnormalities or irritation of the nerves that supply the muscles. The technique for these injections will vary depending upon the location of the trigger point. In general, the skin is sterilely prepared. A very thin needle is then introduced into the trigger point region, and a small volume of anesthetic and/or steroid solution is injected. Occasionally, dependent upon the location, x-ray guidance will be used to aid needle placement.

Trochanteric Bursa Region Injection

Trochanteric bursitis is the inflammation of the small fluid-filled sacs (bursa) that act as cushions on the outer part of the femur in the upper thigh. The bursitis may result from trauma to the hip, from arthritis to the hips, or lower back, or in some cases the cause is unknown. The purpose of this injection is to decrease the inflammation of the bursa, and then hopefully reduce the patient's pain. The patient is placed on their side with the painful hip region up. If both sides are to be done, occasionally the patient is placed in the prone (laying face down) position with a pillow underneath the hips. The skin over the trochanteric bursa region is sterilely prepared. The skin is then anesthetized. A thin needle is advanced under x-ray guidance to the trochanteric bursa region. A small

volume of contrast dye is then injected to prove that the medication will flow in the desired area. Anesthetic and steroid solution is then injected.

After the Injection

Follow the specific instructions given to you by the nurses at the procedure center.

- Resume activity as tolerated.
- For discomfort at the injection site, apply ice packs to the area for 15 minutes several times a day.
- Do not soak in a tub for 24 hours after the procedure. You may take showers.
- Observe for any signs of infection including redness and warmth at the injection site, increasing pain, swelling, drainage, chills, night sweats, fever above 100° F. Report any signs of infection or other unusual symptoms.
- Keep a record of your pain and symptoms after the injection and report your results as instructed by your doctor's secretary.

Remember that your usual pain may go away for a few hours, but after the local anesthetic wears off, it is normal for your pain to return. You may also have some temporary discomfort at the puncture site. For therapeutic injections, the full effects of the steroid may take 2 days to 2 weeks to work, and its lasting effects vary from person to person.

Potential Risks of Diagnostic and Therapeutic Injections

The risks are quite minimal, but are similar to any procedure involving a needle placement. These include, but are not limited to:

- Allergic reaction to the anesthetic, steroid, or contrast dye (be sure to inform us before the injection if you have any known allergies).
- Needle injury to a blood vessel which may bleed.
- Needle injury to a spinal nerve which may cause numbness or muscle weakness (very rare).
- Irritation of the injected structure, which could cause worsening pain.
- Inability to complete the injection due to technically or anatomically not being able to place the needle at the desired target.

Possible Side Effects of the Steroid

Possible side effects include facial flushing, fluid retention, insomnia, low-grade fever, temporary changes with menstruation, and headache. These side effects usually are minimal and resolve 1-3 days after the procedure. If you have diabetes, your blood sugar may be temporarily elevated.