

DIAGNOSTIC TRANSFORAMINAL EPIDURAL STEROID INJECTION

What is a diagnostic transforaminal epidural steroid injection (diagnostic TF)?

A diagnostic TF is the injection of a local anesthetic medication into the epidural space, targeting one or two specific levels/nerve roots.

What is the purpose of a diagnostic TF?

Pathologic changes of the SI joint can often lead to inflammation of the surrounding structures: bones, discs, ligaments, muscles, and nerves. Diagnostic TFs are important diagnostic procedures to identify the underlying cause of pain and the primary levels involved. This information will confirm that injection of steroid (to decrease the inflammation) is the best treatment option. It will also confirm where the steroid should be injected in order to produce the best results. The diagnostic TF itself does not produce any long-term benefit. It is only a test, and is expected to alleviate pain for a few hours, at the most. A good, short-term response, however, will allow your doctor to proceed with appropriate treatment in order to produce long-term pain relief.

How is the procedure performed?

You will be placed on the procedure table. The injection site is sterilized with either iodine or chlorhexadine. The site to be injected is numbed with a local anesthetic, and a needle is directed to the target area. X-ray guidance is used to ensure proper placement and positioning of the needle. Contrast (x-ray dye) may be injected to be sure the needle is in the proper position. Once proper needle placement is confirmed, the local anesthetic solution is slowly injected. The procedure may be repeated at each targeted level/nerve root.

Will the procedure be painful?

The injection can be painful and we therefore provide the option of receiving IV sedation. IV sedation, combined with local anesthetic, can make the injection nearly pain free. It allows you to remain very still during the procedure, which can also make the injection easier, faster, and more successful. If you decide to have IV sedation, you must have a driver to get you home safely afterwards. In addition, you cannot have anything to eat or drink within 6 hours of your appointment (clear liquids are allowed until 2 hours before the procedure). If you take medications for



diabetes, these medications may need to be adjusted the morning of the procedure. Your primary care physician can help you with this adjustment.

What are the discharge instructions?

If you received IV sedation do not drive or operate machinery for at least 24 hours after the procedure. You may return to work the next day following your procedure. You may resume your normal diet immediately. Do not engage in any strenuous activity for 24 hours. Do not take a bath, swim, or use a hot tub for 24 hours (you may take a shower). Call the office if you have any of the following: severe pain afterwards (different than your usual symptoms), redness/swelling/discharge at the injection site(s), fevers/chills, difficulty with bowel or bladder functions.

What are the risks and side effects?

The complication rate for this procedure is very low. Whenever a needle enters the skin, bleeding or infection can occur. If the bleeding accumulates inside the body, it forms a hematoma. If the hematoma pushes against structures of the spine, surgery may be required to evacuate it. Another potential complication is a “spinal headache”, which can occur when attempting a TF. If this occurs, it usually resolves on its own within three to five days. Alternately, there is another procedure that can be performed to cure the headache within a matter of minutes. Some other serious but extremely rare risks include paralysis and death.

You may have an allergic reaction to any of the medications used. If you have a known allergy to any medications, especially x-ray contrast dye or local anesthetics, notify our staff before the procedure takes place.

You may experience any of the following side effects up to 4 hours after the procedure:

- Arm or leg muscle weakness or numbness may occur due to the local anesthetic affecting the nerves that control your arms or legs (this is a temporary affect and it is not paralysis). If you have any leg weakness or numbness, walk only with assistance in order to prevent falls and injury. Your arm or leg strength will return slowly and completely.
- Dizziness may occur due to a decrease in your blood pressure. If this occurs, remain in a seated or lying position. Gradually sit up, and then stand after at least 10 minutes of sitting.
- Mild headaches may occur. Drink fluids and take pain medications if needed. If the headaches persist or become severe, call the office.
- Mild discomfort at the injection site can occur. This typically lasts for a few hours but can persist for a couple days. If this occurs, take anti-inflammatories or pain medications, apply ice to the area the day of the procedure. If it persists, apply moist heat in the day(s) following.



The side effects listed above can be normal. They are not dangerous and will resolve on their own. If, however, you experience any of the following, a complication may have occurred and you should either contact your doctor. If he is not readily available, then you should proceed to the closest urgent care center for evaluation:

- Severe or progressive pain at the injection site(s)
- Arm or leg weakness that progressively worsens or persists for longer than 8 hours
- Severe or progressive redness, swelling, or discharge from the injections site(s)
- Fevers, chills, nausea, or vomiting
- Bowel or bladder dysfunction (i.e. inability to urinate or pass stool or difficulty controlling either)

How long does it take for the procedure to work?

The effect of the diagnostic TF should be felt within 15-30 minutes. Remember, however, that it may last as little as 60 minutes. It is a diagnostic test only and is not meant to provide long-term benefit. During the duration of effect, the targeted pain should improve by at least 75%. If the test is successful, then your doctor can arrange for you to receive a steroid injection in the same area. Steroid medication is a powerful anti-inflammatory medication. An injection of steroid can substantially decrease this inflammation and thereby lead to a significant reduction in pain.