A thoracic selective nerve root block is a target specific epidural steroid injection for diagnosing and treating upper and middle back pain. This information sheet will explain what it is. Your doctor can explain if it is for you.

**What is the epidural space?**

The dura is a protective covering of the spinal cord and its nerves. The space surrounding the dura is called the epidural space. In the upper back it is called the thoracic epidural space.

**What causes pain in the epidural space?**

The thoracic area of the spine has twelve bones, called vertebrae. Soft discs found between them cushion them, hold them together, and control motion.

If a disc tears, chemicals inside may leak out. This can inflame the dura or nerve roots and cause pain.

A large disc tear may cause a disc to bulge, inflaming the dura and nerve roots, and cause pain. Bone spurs, called osteophytes, can also press against nerve roots and cause pain.

**How do I know if I have disc and nerve root pain?**

If you have pain in your upper back when you move, you may have thoracic disc or dural inflammation. If pain travels to the front of your chest when you move your upper or mid back, you may have nerve root inflammation.

Common tests such as MRIs can show disc bulges and nerve root compression, but may not show a torn and leaking disc. A thoracic epidural injection may provide relief if disc, dural, or nerve root inflammation is causing your pain. A selective nerve root block can help determine if a specific nerve is causing your pain.

**What is a thoracic selective nerve root block?**

In a thoracic epidural injection a corticosteroid (anti-inflammatory medicine) is injected into the epidural space to reduce inflammation. A local anesthetic (numbing medicine) may also be injected. If the needle is positioned next to an individual nerve root, it is called a selective nerve root block. This technique puts medication directly along an inflamed nerve root.

**What happens during an injection?**

A local anesthetic will be used to numb your skin. The doctor will then insert a thin needle directly into the epidural space. Fluoroscopy, a type of x-ray, must be used to ensure the safe and proper position of the needle. A dye may also be injected to make sure the needle is at the correct spot.

Once the doctor is sure the needle is correctly placed, the medicine will be injected.
What happens after an injection?
You will be monitored for up to 30 minutes after the injection. When you are ready to leave, the staff will give you discharge instructions. You will also be given a pain diary. It is important to fill this out because it helps your doctor know how the injection is working.

It may help to move your upper and mid back in ways that hurt before the injection, to see if the pain is still there, but do not overdo it. Take it easy for the rest of the day.

You may feel immediate pain relief and numbness in your upper and mid back for a period of time after the injection. This may indicate the medication has reached the right spot.

Your pain may return after this short pain-free period, or may even be a little worse for a day or two. It may be caused by needle irritation or by the corticosteroid itself. Corticosteroids usually take two or three days to start working, but can take as long as a week.

You can usually return to work the day after the injection, but always check with your doctor.

How long can I expect pain relief?
The extent and duration of pain relief may depend on the amount of disc, dural or nerve root inflammation. Other coexisting factors may be responsible for your pain. Sometimes an injection brings several weeks to months of pain relief, and then further treatment is needed. Other times, a single injection brings long-term pain relief. If your pain is caused by injury to more than one area, only some of your symptoms may be helped by a single injection.

This pamphlet is for general education only. Specific questions or concerns should always be directed to your doctor. Your doctor can explain possible risks or side effects.