For Upper & Mid Back Pain

A thoracic radiofrequency denervation (RFD) is an outpatient procedure for treating upper and middle back pain. It is also called thoracic facet thermal coagulation, radiofrequency denervation or rhizotomy. This information sheet will explain what it is. Your doctor can explain if it is for you.

What are thoracic facet joints?
Facet joints connect the vertebrae, the bones of the spine. They help guide your spine when you move. The section of your spine between your neck and low back is called the thoracic region. It contains twelve vertebrae.

Facet joints are found on both sides of the spine. Each is about the size of a thumbnail. Thoracic facet joints are named for the vertebrae they connect and the side of the spine where they are found. The right T4-5 facet joint, for example, joins the 4th and 5th thoracic vertebrae on the right side.

Medial branch nerves are found near facet joints. They communicate pain from the facet joint. They tell the brain when facet joints have been injured or inflamed.

What is thoracic facet joint pain?
You may feel pain if a thoracic facet joint is injured. Sometimes it feels like muscle tension. Other times it can be severe pain.

The cartilage inside the joint may be injured. Other times only connecting ligaments surrounding the joint are injured.

Facet pain also depends on which joint is affected. Thoracic facet joint pain can occur in an area from your upper back and shoulder down to your hips. The diagram shows areas of pain usually associated with thoracic facet injuries.

How do I know if I have thoracic facet pain?
If you have pain in one or more of these areas you may have thoracic facet pain.

Common tests such as x-rays or MRIs may not always show if a facet joint is causing pain. The best way to diagnose facet pain is to block the pain signal in a medial branch nerve.

What is a thoracic RFD?
RFD uses radiofrequency energy to disrupt nerve function. When this is done to a thoracic medial branch nerve, the nerve can no longer transmit pain from an injured or inflamed facet joint.

What happens during an RFD?
An RFD may start with an IV (medicine given intravenously) to help you relax and put you into a twilight sleep. A local anesthetic will be used to numb your skin.
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The doctor will then insert a thin needle near the facet joint. Fluoroscopy, a type of x-ray, will be used to position the needle. The doctor will then check to make sure it is at the correct nerve by stimulating it. This may cause muscle twitching and provoke some of your pain.

Once the needle is properly placed, the area will be numbed. Radiofrequency energy will then be used to disrupt the medial branch nerve. This is often repeated at more than one level of the spine.

What happens after an RFD?

You will be monitored for at least 30 minutes after the RFD. When you are ready to leave, the clinic will give you discharge instructions. Take it easy for the rest of the day.

You may feel sore for one to four days. This is normal. It may be due to muscle and nerve irritation. Your back may feel numb, weak, sensitive or itchy for a couple of weeks. Full pain relief normally comes in two to three weeks.

How long can I expect pain relief?

Nerves regenerate (grow) after an RFD, but how long this takes varies. Your pain may or may not return when the nerves regenerate. If it does, another RFD can be done.

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.