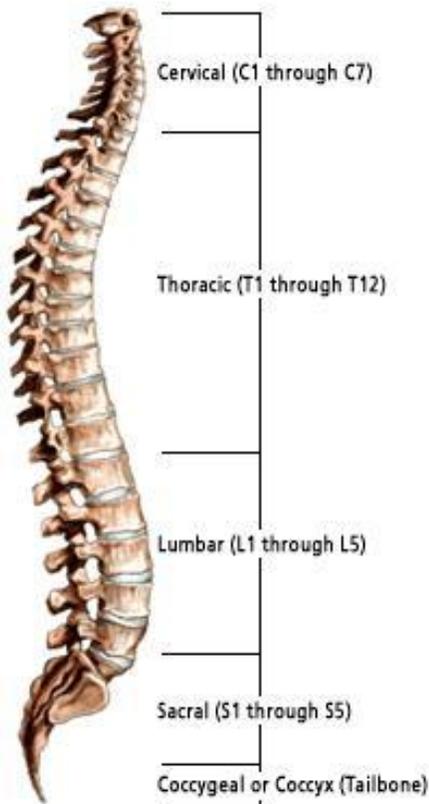




Radiofrequency Thermocoagulation (Neurotomy)



What is radiofrequency thermocoagulation (or radiofrequency neurotomy)?

Radiofrequency (RF) thermocoagulation is a safe, proven means of interrupting pain signals. Radiofrequency current is used to heat up a small volume of nerve tissue, thereby interrupting pain signals from that particular area. Radiofrequency techniques have been available for treating various pain disorders since the early 1970s. Since the 1980s physicians specializing in chronic pain diagnosis and treatment have found an increasing number of applications for this established technology. Some more common medical conditions which respond to radiofrequency techniques include chronic low back pain, thoracic spine pain, and sacroiliac joint dysfunction.

Traditional techniques to destroy painful nerves have used chemicals such as phenol or alcohol. Unfortunately, these techniques have significant side effects due to limited ability to control the spread of these liquids. Radiofrequency needles, accurately placed with the aid of fluoroscopic X-ray machines, generate local heat at the tip when electrical current is applied, which can be precisely controlled to thermocoagulate painful nerves with minimal tissue damage. The procedures can be

performed with little trauma using local anesthesia and intravenous sedation.

What is the typical procedure?

You will be asked to lie flat on your stomach. After the local anesthetic and IV medication for sedation are administered, the doctor will insert a small needle into the area where you experience pain.

Under the guidance of X-ray, the doctor will guide the needle to the exact target area. A microelectrode then will be inserted through the needle to begin the stimulation process. During this process, the doctor will ask you if you feel a tingling sensation. The object of the stimulation process is to help the doctor determine if the electrode is in the optimal area for treatment to produce the most relief.

Once the needle electrode placement is verified, treatment can begin. A small radiofrequency (RF) current will travel through the electrode into the surrounding tissue, causing the tissue to heat and eliminate pain pathways. You should alert the doctor if at any time during the procedure you experience discomfort, especially in the extremities. Otherwise, you may experience a slight burning or pressure sensation at the site of the injection.

What if the pain relief doesn't last?

Radiofrequency treatment of tissue usually blocks pain signals for a prolonged period of time. However, the human body may regenerate pain pathways over time. It is not unusual that the procedure may need to be repeated at some point in the future.

What are the risks of radiofrequency thermocoagulation?

As with any procedure, there are some inherent risks, although most of these are minimal. Common risks include but are not limited to bruising, bleeding, headaches, irritation of a nerve or nerve injury, including paralysis, numbness and weakness. Risks also include infection or reactions to the medications which may cause breathing difficulties and cardiac difficulties which may lead to death. Serious risks and complications are extremely rare, however.

