



Radiofrequency Ablation Procedure Patient Education

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WHAT IS RADIOFREQUENCY ABLATION?

Radiofrequency ablation (RFA), also commonly known as radiofrequency neurotomy (RFN), is a procedure that uses a specialized machine and needles that generate radiofrequency current and heat in order to disrupt pain signaling. The current is passed through a conductive probe that is strategically placed adjacent to a target nerve. The nerve is thus ablated and unable to carry pain signals. Prior to RFA, the patient undergoes diagnostic blocks of the nerves or joint of interest. This procedure is commonly performed for the medial branch nerves (spinal facet joint), lateral branch nerves (SI joint), and genicular nerves (knee joint). It is also performed for pain in the hip and shoulder, though the evidence for efficacy is not yet as robust as the aforementioned procedures.

HOW IS THE PROCEDURE PERFORMED?

The patient is positioned in such a manner to provide optimal access to the target nerves. The skin is cleansed with antiseptic solution and a sterile field is created. A generous amount of local anesthetic is used to numb the skin and underlying tissue. Under X-ray guidance (fluoroscopy), an introducer needle is advanced into the targeted nerve. In some select instances, stimulation testing is performed to ensure that the ablation will not affect the nerves that innervate the limbs. The radiofrequency probe is then placed through the introducer needle and the target nerves are numbed. Radiofrequency ablation is then performed, which typically lasts from 90-150 seconds. The procedure takes about 30 minutes to complete.

HOW LONG DOES THE EFFECT LAST?

The effect will hopefully last for an extended period of time. While the duration of effect is different for everyone, majority of patients get 1-2 years of relief.

WHAT IS THE NEXT STEP AFTER THE PROCEDURE?

You should minimize strenuous activity on the day of the procedure, but after that you may return to your normal activity level as tolerated. You may have increased pain for the first few days after the procedure and occasionally patients experience a “sunburn” sensation for a few weeks after the procedure. The full extent of the pain relief is typically realized by 6 weeks.

WHAT ARE THE RISKS AND SIDE EFFECTS?

Serious side effects and complications are rare. The most common problem after the injection is having pain in the area of the procedure for a few days to weeks. Sometimes, steroid is used to minimize post-procedure pain and some individuals may temporarily develop headaches, facial flushing, higher than normal blood pressure, and high blood sugar due to the steroid. The other

potential complications are infection, bleeding and nerve injury. These complications are minimized by using sterile technique and fluoroscopic (x-ray) needle guidance.