



Radiofrequency Ablation/Denervation

Radiofrequency ablation (or RFA) is a procedure used to reduce pain. An electrical current produced by a radio wave is used to heat up a small area of nerve tissue (usually the dorsal medial branch nerve to a facet joint) which disrupts the nerves ability to send painful signals to the brain and spinal cord.

Which Conditions Are Treated With Radiofrequency Ablation?

RFA can be used to help patients with chronic (long-lasting) low-back, mid-back and neck pain from trauma, arthritis and other painful conditions affecting the facet joints.

How Long Does Pain Relief From Radiofrequency Ablation Last?

The degree of pain relief varies, depending on the cause and location of the pain. Pain relief from RFA can last from six to twelve months and in some cases, relief can last for years.

Is Radiofrequency Ablation Safe?

RFA has proven to be a safe and effective way to treat some forms of pain. It also is generally well-tolerated, with very few associated complications. There is a slight risk of infection and bleeding at the insertion site. Your doctor can advise you about your particular risk.

What Are the Side Effects of Radiofrequency Ablation?

The main side effect of RFA is some discomfort after the procedure, including swelling and bruising, at the site of the treatment, but this generally goes away after a few days. A small percentage of patients may see an increase in pain for a few weeks after the procedure that is often described as an “internal sunburn” sensation. There is no way of predicting which patients may experience the “internal sunburn” sensation, but should it occur, it usually resolves on its own in few weeks. Rarely, a cortisone injection is required to help expedite the burning sensation. Another risk that is extremely rare is the small nerve to the facet joint (dorsal medial branch nerve) sometimes has another nerve sprouting off of it that goes to the skin next to the injection sites. If you have this “nerve sprout” to the skin, a small numb or sensitive area may develop close to the injection sites that may not go away (i.e. the nape of the neck, angle of the jaw, buttocks, or side of the thigh-depending if your neck or low back is being treated). If this numb area does occur, it does not usually cause any problems, just one small patch of skin is not as sensitive as other areas.

Who Should Not Get Radiofrequency Ablation?

As with any medical procedure, RFA is not appropriate for everyone. For example, radiofrequency ablation is not recommended in people who have active infections or bleeding problems. Your doctor can tell you if you should not have RFA.

How Do I Prepare for Radiofrequency Ablation?

To prepare for radiofrequency ablation treatment, you should take a few precautions, including:

- Do not eat or drink within six hours of your appointment.



- If you have diabetes and use insulin, you must adjust the dosage of insulin the day of the procedure. Your primary care doctor will help you with this adjustment. Bring your diabetes medication with you so you can take it after the procedure.
- Continue to take all other medications with a small sip of water. Bring all medication with you so you can take it after the procedure. Please note: Do not discontinue any medication without first consulting with your primary or referring doctor.
- You will need to bring someone with you to drive you home after the procedure. You should not drive or operate machinery for at least 24 hours after the procedure.

What Happens During Radiofrequency Ablation?

An intravenous (IV) line may be placed in a vein in your arm before the procedure and a local anesthetic and mild sedative may be used to reduce any discomfort during RFA. A sedative is not required for all patients. You may be awake during the process to aid in properly assessing the procedure.

After the local anesthesia has been given, the doctor will insert a small needle into the general area where you are experiencing pain. Using X-ray, the doctor will guide the needle to the exact target area. A microelectrode is then inserted through the needle to begin the stimulation process.

During the procedure, your doctor will ask if you are able to feel a tingling sensation or thumping in your neck or back. The object of the stimulation process is to help the doctor determine if the electrode is in the optimal area for treatment.

Once the needle and electrode placement are verified, a small radiofrequency current is sent through the electrode into the surrounding tissue, causing the tissue to heat. You should not feel discomfort during the heating portion of the procedure.

What Happens After Radiofrequency Ablation?

Following radiofrequency ablation:

- You will stay in a recovery room for observation, where a nurse will check your blood pressure and pulse.
- A bandage will be placed over the injection site.
- Someone must drive you home.

Can I Resume My Normal Activities After Radiofrequency Ablation?

You will have a few restrictions immediately following radiofrequency ablation:

- Do not drive or operate machinery for at least 24 hours after the procedure.
- You may resume your normal diet.
- Do not engage in any strenuous activity for the first 24 hours after the procedure.
- You may remove any bandages in the evening before going to bed.

What Side Effects May I Have After Radiofrequency Ablation?



You may experience the following effects after RFA:

- **Leg numbness:** If you have any leg numbness, walk only with assistance. This should only last a few hours and is due to the local anesthesia given during the procedure.
- **Mild back discomfort:** This may occur when the local anesthetic wears off and usually lasts two or three days, if it occurs. Apply ice to the area the day of the procedure and moist heat the day after the procedure if the discomfort persists. You may also use your usual pain medications, if applicable.

If I have RFA done, will I still be able to feel my neck or back after the procedure? I do not want to hurt myself and not know it.

Yes. You should still be able to feel your neck or back after the procedure. If you hurt yourself or do too much, you should know it, provided no other medical problem(s) exist that affect your ability to feel pain.