

## Radiofrequency Ablation for Pain Relief

*How to prepare and what to expect*

*This handout explains radiofrequency ablation, a treatment to reduce pain.*

### What is radiofrequency ablation?

*Radiofrequency ablation (RFA)* is a treatment to reduce pain. It uses radio waves to create an electric current that heats a small area of nerve tissue. This decreases or blocks the pain signals from that area.

After RFA, pain relief usually lasts for 6 to 9 months. For some people, pain relief may last only 3 months. For others, pain may be reduced for 18 months or longer.

### When is RFA used?

Most patients who have RFA have already tried other treatments such as anti-inflammatory medicines, chiropractic therapy, or physical therapy.

RFA is most often used to treat neck or back pain caused by *facet joint* problems such as arthritis or an injury. RFA blocks the pain signals from the individual facet joints.

### What are facet joints?

Each *vertebra* (small bone) in your spine has flat surfaces called *facets*. The facets touch at facet joints, where the vertebrae fit together. Each facet joint has 2 nerves called *medial branch nerves*.

Before being considered for RFA, you must have a *medial branch nerve block injection*. This diagnostic test will tell your provider if RFA is a good option for you.



*Talk with your doctor if you have any questions about what causes your pain and how RFA can help.*

## **What are the risks of RFA?**

Risks linked to RFA include:

- Infection
- Nerve damage
- Electrical burn
- Ongoing increase in pain

Other rare but serious problems are also linked to RFA. Talk with your doctor to learn more.

## **Isn't it bad to destroy nerves? Don't I need them?**

RFA affects a minor nerve that serves only the one facet joint and a small muscle. You will not notice the loss of this one small nerve.

An injury to a large nerve, to many nerves, or to a nerve that serves the skin, would cause more pain. This does not usually happen after RFA.

## **Will the nerve grow back?**

Yes. The nerve usually grows back (*regenerates*) in 8 to 12 months. Since RFA does not cut the nerve, the nerve will not create a *neuroma* (a painful nerve scar) when it grows back.

When a nerve grows back, some of your pain may return, but it may not. This result depends in part on how well you have done with your physical therapy (PT) exercises since your RFA. PT increases muscle strength, and stronger muscles mean you are less likely to have pain when the nerve grows back. But, if your pain returns, RFA can be done again.

## **How is RFA done?**

- You will lie on an exam table. We will help you get into the position that will help your doctor get the best results.
- Your doctor will then use X-ray or ultrasound to guide a special needle to the right place.
- When the needle tip is in the right position, your doctor will do 2 types of electrical stimulation before the RFA is done:
  - The first electrical stimulation is done to make sure the needle tip is close to the nerve that causes your pain. You may feel a buzzing or tingling sensation, or a deep ache or pain.
  - The second electrical stimulation is done to make sure that the needle tip is not close to any nerves that affect movement. You may feel some twitching or throbbing, but your doctor will watch to make sure that the stimulation is not affecting any large muscles.

### How to Prepare for Sedation

- **Starting 6 hours** before your RFA, do not eat any solid food. You may drink clear liquids such as apple juice, black tea or coffee, or broth.

- **Starting 2 hours** before your RFA, do not take anything by mouth.

If you need to take medicines during this time, take them with **only** a small sip of water.

- Arrange for someone to take you home after your injection. You will not be able to drive, or take a taxi or bus by yourself.
- If you have diabetes, ask your provider about managing your diabetes medicines during the time you cannot eat.

- We may give you light *sedation* (medicine to help you relax). But, you will need to be able to talk and answer questions during your RFA, so we will not give you medicine to make you sleep.
- Your doctor will then numb the tissue around the needle tip with local anesthetic. An electric current is passed through these tissues. This heats the nerve and numbs (*ablates*) it.
- The needles are then removed and a small bandage is placed over the area.
- If needed, these steps will be repeated at other places along the nerve. This is decided by the results of your medial branch nerve block injection.

### How long does RFA take?

Plan to spend 3 hours at the clinic, from the time you are admitted until you can leave. The RFA itself takes about 45 minutes.

### How do I prepare for RFA?

#### 1 Week Before

- You must stop taking all blood-thinning (*anticoagulant*) medicines some time in the week before your RFA. Talk with your prescribing doctor as soon as you schedule your RFA to find out when to stop taking these blood-thinning medicines:
  - Coumadin (warfarin), Edoxaban (savaysa), Effient (prasugrel), Eliquis (apixaban), Lovenox (enoxaparin), Plavix (clopidogrel), Pletal (cilostazol), Pradaxa (dibigatran), Teclid (ticlopidine), Xarelto (rivaroxaban), or other

Please call the pain clinic if you have not been able to talk to your doctor about stopping your blood-thinning medicine. We may need to reschedule your RFA for a later date.

- If you take low-dose aspirin or anti-inflammatory medicines, you will be instructed on how to prepare for your RFA. We may or may not recommend stopping these medicines.
- Read “How to Prepare for Sedation” in the box on the left-hand column on this page.
- Arrange for a responsible adult to come with you to the clinic on the day of your RFA and drive you home. **If you do not bring a driver with you, we will need to reschedule your RFA for another day.**

## The Morning of Your RFA

- Wear loose, comfortable clothing.
- Follow your doctor's instructions for reducing your pain medicine before your RFA.
- **If you have diabetes:** Follow your provider's instructions for managing your diabetes medicines.
- Bring your driver with you to the clinic. If you arrive without a driver, we will need to reschedule your RFA.

## At the Clinic

- Arrive at least 45 minutes before your appointment time.
- Plan to spend at least 3 hours at the clinic.
- We will take your blood pressure before we begin your RFA. If your blood pressure is high, we may need to reschedule your RFA.

## Follow-up

- Because the sedative medicine will affect your response time, do **not** to drive or use machinery for 24 hours after your RFA.
- We may send you home with instructions to keep a pain diary. Please follow the instructions closely.
- Be sure you have set up follow-up visits as needed with your pain provider, primary care provider, or both.

### Questions?

Your questions are important. Call your pain clinic if you have questions or concerns.

- Harborview Pain Clinic:**  
206.744.7065
- UWMC-Roosevelt Center for Pain Relief:**  
206.598.4282