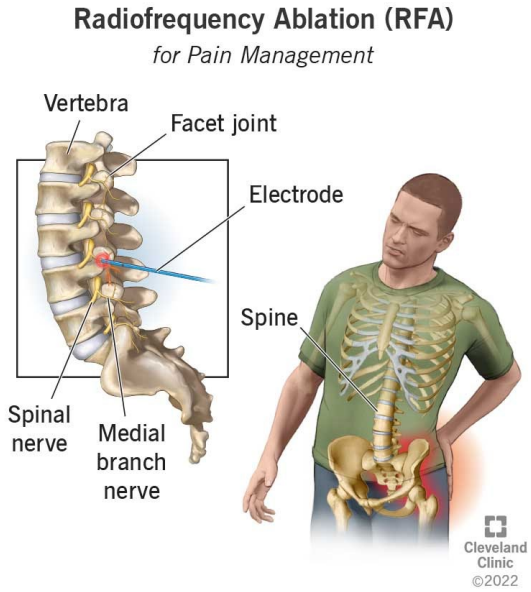
Radiofrequency Ablation for Pain Management

What is radiofrequency ablation (RFA)?

Radiofrequency ablation (RFA) uses radio waves to create a current that heats a small area of nerve tissue. The heat destroys that area of the nerve, stopping it from sending pain signals to your brain. RFA can provide lasting relief for people with chronic pain, especially in the lower back, neck and arthritic joints.



Why is radiofrequency ablation (RFA) done?

The goals of radiofrequency ablation are to:

- Stop or reduce pain.
- Improve function.
- Reduce the number of pain medications taken.
- Avoid or delay surgery.

What conditions can be treated with radiofrequency ablation?

Radiofrequency ablation is used to treat:

- Chronic pain caused by conditions including arthritis of the spine (spondylosis) and sacroiliac (SI) joint pain.
- Pain in your neck, back and knee.
- Facial pain caused by trigeminal neuralgia.
- Peripheral nerve pain

How does radiofrequency ablation work?

Radiofrequency ablation uses heat produced from radio waves to target diseased tissue. When radiofrequency is applied to nerve tissue, it damages nerves, which prevents or stops the pain signal from reaching the brain and results in pain relief.

During a radiofrequency ablation procedure, a small hollow needle is inserted into the targeted nerve that is causing pain. An electrode is inserted into the top of the needle, which sends the radio waves

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through the needle to the targeted nerve. The heat causes a lesion that prevents the nerve from sending pain signals to your brain. Nearby healthy nerves are not damaged during the procedure.

Pain management within your spine

Radiofrequency ablation is often used to manage pain originating from joints (such as your knee) and oftentimes related to pain from your spine, especially your neck and lower back (lumbar area of your spine).

Within your spine, nerves branch off from your spinal cord and travel to the facet joints and sacroiliac joints.

Facet joints are pairs of small joints between the vertebrae in your spine. These joints give your spine flexibility and allow movement of your back, such as twisting and bending. Two small nerves, called medial branch nerves, are connected to the facet joints and send a signal to your brain that there is pain coming from these joints.

Sacroiliac joints are found near the bottom of your spine, right above your tailbone. Lateral branch nerves that are connected to these joints send pain signals from the spine to your brain.

Using radiofrequency ablation to treat the targeted medial branch nerve in the facet joints or the lateral branch nerve in the sacroiliac joints decreases pain signals from reaching your brain.

What happens during a radiofrequency ablation procedure?

First, you'll lie on your stomach on a special X-ray table. Your healthcare provider will use monitors to watch your condition during the procedure.

Your doctor will use a local anesthetic to numb the area of your skin where a needle will be inserted. Then:

- A thin needle is inserted into the area where you feel pain.
- Needle placement is guided by a special kind of real-time continuous X-ray called fluoroscopy.
- Once the needle has reached the intended site, your doctor will do a test to confirm it's in the proper position.
- A local anesthetic is injected through the needle to numb the target area.
- A radiofrequency current is sent through the needle to heat the identified portion of the nerve.
- The current destroys that area of the nerve, stopping it from sending pain signals to your brain.
- More than one nerve can be treated during the procedure (if needed).

How long is the radiofrequency ablation procedure?

Radiofrequency ablation takes from 15 minutes to 1 hour to complete, depending on the treatment location and number of treatments performed.

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What happens after a radiofrequency ablation procedure?

- You'll go home shortly after your procedure. Someone must drive you home.
- Rest when you get home. Don't drive or do anything strenuous for 24 hours after the procedure. After a day or two, you can return to your normal activities, including bathing or showering.
- You may still feel soreness, pain or muscle spasms at the treatment site for a few days. Your healthcare provider may have prescribed pain medication for the soreness and pain. You can also apply an ice pack to the injection site, off and on for 20 minutes a few times during the first day of your recovery at home.

What are the advantages of radiofrequency ablation?

- Pain relief.
- No surgery.
- Little to no recovery time.
- Decreased need for pain medications.
- Improved function.
- Return to regular activities after a day or two of rest.

What are the side effects and risks of radiofrequency ablation (RFA)?

During the procedure, you may experience some pain or burning sensation at the site, similar to what you experienced before the procedure. The pain may last for a week or two after the procedure. Applying an ice pack at the site, 20 minutes off and on, may help relieve the pain.

You may feel some temporary numbness where the needle entered your skin.

The risk of complications from RFA is very low. On very rare occasion, permanent nerve damage or pain can occur. In some people, their original pain may get worse. Other complications, including infection and bleeding at the needle insertion site, are uncommon.

How effective is radiofrequency ablation?

Most people have some pain relief after radiofrequency ablation, but the amount varies by cause of pain and location. Pain relief can be immediate in some people, occur within 10 days in other people or may take up to three weeks in others.

Pain relief can last from six months to 12 months. For some people, the relief lasts a few years. Others may have only limited pain relief.

The treated nerve can regrow. If this happens, it usually happens about six to 12 months after the procedure. Radiofrequency ablation can be repeated if needed.