

RADIOFREQUENCY ABLATION

Radiofrequency ablation (or RFA) is a procedure used to help patients who experience severe chronic or long-lasting low back pain that is related to degeneration of the small (facet) joints of the spine due to arthritis. Radio wave is used to produce heat around specific nerves which innervate the facet joint(s) on either side of the lumbar spine. By generating heat around the nerve, the nerve loses its ability to transmit pain signals to the brain (thus ablating the nerve).

Before undergoing RFA, it is important that we evaluate whether it will be the right treatment for you. First, we will perform a *medial branch block (MBB)*, which is temporary and diagnostic. An anesthetic agent is used to temporarily block the nerves considered to be responsible for pain. The patient is asked to perform activities that typically produce pain to see if the block is effective. If it proves effective, the block is repeated for a second time. If both blocks are effective in relieving your pain (establishing cause and effect), then we can proceed with the RFA procedure. The chance of success with two effective blocks is about 90%. Another name for radiofrequency ablation is rhizotomy.

RFA is a minimally invasive procedure that can be performed as an out-patient at a local surgery center. The patient can return home shortly after the completion of the procedure.

What About Safety? Are There Side Effects?

RFA is a safe and effective way to treat some forms of low back pain. As with any spine procedure, there are risks such as nerve damage, weakness, infection or bleeding which are rare. See the informed consent for details.

The more common side effect of RFA is discomfort and bruising at the treatment site lasting a few days.

During the RFA Procedure

An intravenous (IV) line will be started in your arm before the procedure. IV sedation can be given to induce mild sedation. Deep sedation will not be given for variety of reasons. You remain awake so you can assist in properly assessing the procedure.

Using x-ray guidance, your doctor will insert and direct the needles to the exact target area. This is usually the most painful part of the procedure.

An electrode is inserted through the needle to begin the stimulation process. During the procedure, your doctor will ask specific questions to optimally place the needle in the vicinity of the target nerves. Once the needle and electrode placement are verified, the radiofrequency current is sent through the electrode into the surrounding tissue, which heats the tissue. During the heating portion of the procedure, you may feel some discomfort.

How Long Do the Effects of RFA Last?

Results vary from patient to patient. Since the ablated nerves do regenerate over time, pain relief from RFA averages about 12 months but can last much longer. If relief lasts less than 6 months, the RFA is considered not successful.