

Visited 10/05/2015

CENTER FOR
DIAGNOSTIC IMAGINGA NATIONAL PROVIDER NETWORK FOR
MEDICAL IMAGING & RELATED SERVICES

Radiofrequency (RF) Rhizotomy

Radiofrequency (RF) rhizotomy or neurotomy is a therapeutic procedure designed to decrease and/or eliminate nerve pain symptoms that have not responded to more conservative pain treatments. The procedure involves destroying the nerves causing the pain with highly localized heat generated with radiofrequency. By destroying these nerves, pain signals are prevented from being transmitted from the spine to the brain. A successful procedure reduces pain without reducing nerve function.

Preliminary Testing

Before an RF rhizotomy exam can be scheduled, it is important for our radiologists to identify where the pain originates. Exams required to determine these areas might include **MRI** ([/knowledge_center/the_mri_experience/](#)) of the spine, **nerve block injections** ([/knowledge_center/pain_management/nerve_root_block/](#)) with local anesthetic (numbing medication) and steroid (anti-inflammatory medication), and possibly **discography** ([/knowledge_center/pain_management/discogram/](#)).

Learn more about RF Rhizotomy:

Before your appointment

- We will contact you prior to your appointment to review medications you are currently taking, your medical history, potential risks and answer any of your questions.
- Contact your provider before you stop taking any medication.
- If you have films, reports or CD-ROMs of any MRI, CT or X-rays you have already had, please bring them to the appointment.
- The use of sedation during your procedure is at the radiologist's discretion. If prescribed, detailed instructions will be given to you.
- If sedated, you will need someone to drive you home and stay with you post-procedure due to the effects of the medications.
- At your appointment, women should always inform their provider or X-ray technologist if there is any possibility that they are pregnant or if they are breast feeding.

What to Expect During this Procedure

- Overall you should plan on approximately one and a half hours of your time for this procedure from check-in until you leave the clinic.
- It is important that you remain awake during the procedure to provide important feedback to the radiologist.
- Using X-ray guidance, our specialized radiologist will insert a thin needle and inject contrast solution. The contrast solution is designed to highlight your anatomy to make sure the nerve thought to be causing your pain is

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precisely targeted.

- To verify the needle position, the nerve may be stimulated using low voltage electricity. The stimulation will cause the affected muscles to rhythmically contract.
- A radiologist usually performs the procedure using a thin needle electrode placed adjacent to the degenerative facet joint.
- The radiologist will then use numbing medication (anesthetic) to desensitize the nerve.
- Then, the radiologist will apply heat to the nerve via the electrode. This heat is designed to create a lesion, causing the nerve to become cauterized or burnt, which in turn breaks the communication link to the brain.
- This procedure can be repeated at other levels including the levels above and below where the pain is originating.
- Throughout the procedure, a radiologist and nurse will monitor your condition and comfort level closely.

What to Expect After this Procedure

- If you are sedated, a nurse will review some guidelines that you will be asked to follow post-procedure (pertaining to driving, drinking alcoholic beverages, etc.).
- You may experience numbness and/or relief from symptoms after the procedure due to the anesthetic.
- Once the local anesthetic effects have worn off, your usual symptoms may return and may be more severe for up to five to seven days after the procedure.
- You may be asked to keep a record of symptoms following the procedure and report to the referring provider at your follow-up appointment.
- When the procedure is successful, improvement is usually noticed two to three weeks after the procedure. However, it may take up to four weeks before symptoms improve and the beneficial effects of the rhizotomy are realized. Every patient is different and your outcome may vary.

Risks or Negative Side Effects

Although complications are rare, we will review possible side effects and risks with you prior to your exam so you can ask questions and decide if this exam is right for you.

NOTE: This procedure is not performed in all of our centers. Please contact the **location or region (/services_near_you /services_near_you_results/)** nearest you for more information or to schedule an appointment. We are happy to help answer any questions you may have!

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