

FACT SHEET

Pulsed Radiofrequency (RF)



WHAT IS IT?

Pulsed radiofrequency (RF) is a well-established treatment for joint and nerve pain. The procedure differs from radiofrequency neurotomy (RFN) treatment where the probe is heated. Pulsed RF treatment applies an intermittent electrical pulse to the probe, thereby avoiding heating the nerve. This in turn, minimises further nerve damage.

RF treatment doesn't cause weakness or loss of normal sensations, and has been shown to reduce pain.

WHAT CONDITIONS DOES IT TREAT?

Pulsed RF can be used to treat

- Radicular pain (neuropathic pain from the spine)
- Occipital neuralgia (pain in the back of the head or base of the skull)
- Post-surgical neuropathic pain
- Suprascapular nerve for shoulder pain
- Medial branch nerves for facet joint spinal pain.

HOW SHOULD I PREPARE FOR THE PROCEDURE?

You should avoid eating or drinking for six hours prior to the procedure. We also advise that you have a responsible adult to look after you for the 24 hours following the procedure. During this 24 hours, you shouldn't drive, or make important decisions.

If you are diabetic or take or blood-thinning medications, you should discuss this with the doctor.

WHAT HAPPENS DURING THE PROCEDURE?

RF treatment is performed under sterile conditions in an operating theatre using mild sedation and / or local anaesthetics. Fluoroscopic x-ray guidance allows the operator to accurately position a needle (probe) near the site of the affected nerve or joint.

HOW WILL THE RF HELP?

A number of studies have been performed on the efficacy of RF treatment.

REFERENCES

1. Lifford R, Ghazi A, Cosman ER Jr. A Novel Technique to Deliver Epidural PRF for the Management of Persistent Lumbar Radicular Pain in Failed Back Surgery Syndrome. Presented at: *7th WIP World Congress*. May 7-10, 2014. Maastricht.
2. Bhaskar A, Cosman ER Jr. A Novel Technique to Deliver Epidural PRF for the Management of Lumbar Radicular Pain. Presented at: *1st WIPF Word Pain Symposium*. November 14-17, 2013. Kolkata, India.
3. Shamov, T. (2014). Epidural Pulse Radiofrequency Treatment in Patients with Subacute Discogenic Radicular Pain. *Journal of Spine & Neurosurgery*, 03(05).
4. Cosman, E. and Cosman, E. (2005). Electric and Thermal Field Effects in Tissue Around Radiofrequency Electrodes. *Pain Medicine*, 6(6), pp.405-424.

For more information

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Epidural Pulsed RF (PRF) at the dorsal nerve roots and dorsal root ganglia (DRG) can be used to treat radicular neuropathy.^{1,2,3} Epidural placement enables treatment of multiple spinal levels via a single needle, and targeting of nerves inaccessible due to normal anatomy, foraminal stenosis, or hardware.^{1,2,3} Temperature control at 42°C limits thermal effects and ensures safety.^{1,2,3,4}

The average duration of pain relief is between four and 26 months, depending upon which nerve is being treated. However, pain relief may range from anywhere between four weeks to 18 months. In some cases, there is no benefit.

WHAT TO EXPECT AFTER THE PROCEDURE

Generally, you will be discharged from the hospital within two hours and may resume normal activities on the following day. Simple analgesics are often required for a few days. If you've been using stronger analgesics, you may require stronger analgesia for a few days.

ARE THERE SIDE EFFECTS?

Like all procedures, RF treatment carries some risks, including:

- Allergic reaction to the medications used in the procedure or sedation is possible but can be treated on the day: nausea is not uncommon following sedation.
- Infection is extremely unlikely with the possibility minimised by the use of sterile techniques in an operating theatre. The needles are all disposable.
- It is uncommon for even a day of work to be lost; however, if there was an infection or excessive pain, there is a possibility of some time off work.

DISCLAIMER

Please note the contents contained in this Patient Fact Sheet are not intended as a substitute for your own independent health professional's advice, diagnosis or treatment. At Metro Pain Group, we assess every patient's condition individually. As leaders in pain intervention, we aim to provide advanced, innovative, and evidence-based treatments tailored to suit each patient. As such, recommended treatments and their outcomes will vary from patient to patient. If you would like to find out whether our treatments are suitable for your specific condition, please speak to one of our doctors at the time of your consultation.