

RADIOFREQUENCY NEUROTOMIES (DENERVATIONS)

In this procedure, pain relief is achieved by heating the small nerves in the back or neck with a small electric current that is passed down a thin needle adjacent to the nerve.

Pain from the spine may come from the intervertebral discs, facet (zygapophysial) or sacro-iliac joints or related structures. The facet joints may be causing all, part or none of the pain you are experiencing. The facet joints may be damaged in car accidents, falls, lifts involving twisting and accompany disc injuries as a slowly progressive condition. Pain from the facet joints can refer into different areas. In the neck the pain can spread to the head, the shoulders, the arm and the area between the shoulder blades. In the back, the pain can spread to the chest, the buttocks, the groin and the legs.

Radiofrequency Facet Denervation (RFD) is used when there is a high degree of suspicion that the facet joints are the cause of pain and is usually recommended after consistent short term pain relief is obtained with 2 sets of diagnostic injections. If these joints are the sole cause, the RFD usually produces total pain relief. If they are a contributing cause you will feel a bit better. If they are not causing any pain, a RFD will make no difference

It is best to investigate and treat pain coming from facet joint and related structures before having disc injections/surgery, as the RFD is safe, usually gives 6-9 months pain relief (range 3-36 months), can be repeated, is minimally invasive & allows a rapid return to normal duties.

The definitive test for pain arising from the intervertebral disc is the discogram and this requires an injection into the disc. Pain from symptomatic intervertebral discs is best managed conservatively with a graded reactivation. The role of other options like strong pain killers, intradiscal treatments or back surgery is still being decided and should be discussed with your treating doctor.

PREPARATION

Hospital - You will usually spend 4-6 hours in hospital. Report to the hospital at the scheduled admission time.

Drugs - Please take your normal medications with a sip of water (except blood thinners or diabetic on tablets or insulin - your doctor will give you specific instructions).

Food – Please have nothing to eat or drink for 4 hours before the treatment.

THE PROCEDURE

A small needle may be placed into a vein in your arm. You will be asked to lie on your stomach. The target area will be cleaned with antiseptic and covered with sterile drapes (which you must not touch). Your head will be in a padded frame under the drapes for head and neck treatments or turned to one side on a pillow outside the drapes for all other areas.

After local anaesthetic is injected, using fluoroscopic (and sometimes ultrasound) guidance, the RF needle is placed onto the small nerves in the back/neck - the dorsal rami or its branches. Nerve stimulation may be used to locate the target nerves. You may feel a tingle, ache or a twitch - please tell the doctor if this is where you feel your usual pain.

During the procedure you may experience some discomfort or pain as the needle tip is heated to 80-85°C that is usually well controlled by the injected local anaesthetic and sedation if administered. Your feedback is important, if you feel strong pain, additional local anaesthetic and/or intravenous or inhaled sedation will be administered.

The number of nerves to be treated will be similar to the number of diagnostic blocks required to relieve your pain.

AFTER TREATMENT

Ice packs, TENS, paracetamol, ibuprofen or tramadol are usually sufficient to control the post procedure soreness, which usually settles within 1-2 weeks. Even if pain is prominent after the RFD you should resume normal activities, as you cannot alter the outcome of the RFD. If the pain has a burning quality, tramadol or amitriptyline may be helpful. Repeat treatment may be required for missed nerves or segments.

RESULTS

It is reported that about 60 - 75% of patients undergoing this procedure experience some long term pain relief. This does not mean total pain relief and does not guarantee success for you.

What are the effects of burning a nerve?

Within the nerve that is heated there are many small nerve fibres. The pain carrying fibres (A delta and C fibres) are among the smallest and most sensitive to heat lesions. These fibres recover slowly and the pain relief can last at least one year. The pain relief can allow for improved mobility and the resumption of normal activity. This may enhance the recovery of the back/neck and diminish the need for a repeat procedure or other treatment.

The nerves that supply the limb muscles and skin are not touched by RFD. These large nerves - the ventral rami – do not signal pain from the posterior structures. Thus, the limb muscles/skin should not ordinarily be affected by RFD.

Adverse effects from RFD are uncommon other than needle site pain and bruising. Lumps from deep bruises (haematoma) may occur and usually settle quickly. Other rare side effects include infection, allergic reactions, about 1:100 patients may have more pain. The risk of serious long term problem is very small.

Exercising/Activity/Work

You may be seen by the physiotherapist after the procedure for an update on exercises and for guidelines about returning to normal activities. You may be commenced on a stabilisation program, requiring two return visits.

It is important to maintain mobility and strength after a RFD. Usually a graded return to normal activities/duties is all that is required. Resume normal activity and work as soon as possible. However, do not plunge straight into vigorous activity, increase activities by 10% every 4-7 days. Increase slowly, but steadily to avoid flare-ups. Frequent low intensity activity is just as good as maximum effort and there is much less chance of aggravating the pain.

ASSESSMENT:

Please note any changes in pain intensity at night, rest and with activity from the RFD, especially the ability to work, perform tasks or activities that had previously been limited by pain.

DISCHARGE INSTRUCTIONS:

Avoid strenuous exercise for 2 hours, then gradually increase range of normal activity.

Report fevers >38°C, unexpected redness or severe pain, new numbness or weakness.

Apply ice to painful areas for 24 to 48 hours and use analgesics as required.

Do not drive a car, operate machinery, drink alcohol or make important decisions for 12 hours.

Please make an appointment to be reviewed in 4-6 weeks.

More information is available at <http://www.fpmx.com.au/frankston-pain-management-services.html>