

BACK NECK & JOINT

RADIOFREQUENCY NEUROTOMY (RFN)

RFN is a well established treatment for facet joint pain, which has been previously diagnosed where appropriate with diagnostic facet joint injections, or better, medial branch blocks. RFN is performed under sterile conditions in an operating theatre using mild sedation and local anaesthetics. Fluoroscopic x-ray guidance allows operators to accurately position the radio-frequency probe adjacent to the relevant medial branch nerves. The nerve is heated to 90 degrees centigrade using a radio-frequency generator. If facet joints are the sole cause of pain, RFN may produce total pain relief. If it is a contributing cause, RFN will provide some pain relief. If facet joints are not the cause of pain, an RFN will make no difference.

HOW ACCURATE IS THE DIAGNOSIS?

The confidence of the diagnosis by using medial branch blocks is increased when doing more medial branch blocks, each requiring an additional procedure session.

When diagnosing cervical (neck) facet joint pain, two positive blocks at the same anatomical level provide reasonably high confidence. When diagnosing lumbar (low back) facet joint pain, the diagnostic confidence is not high (due to a lower prevalence of lumbar facet joint pain - this is a statistical technical fact).

It is best to consider a positive block meaning that facet joint pain is possible, and a negative block as that the facet joint is not the source of pain.

CAN THE RFN BE REPEATED?

The treatment lasts for at least a year on average. After a year, around 60% of patients report a 90% pain reduction, and 90% report a 60% pain reduction. If pain returns after RFN wears off, RFN can be repeated multiple times.

WHAT HAPPENS TO THE NERVES?

Patients can be reassured that the nerve function recovers, generally in about 12 months. As the outer layer of the nerve, called the sheath, remains intact, the axons do regenerate so that normal function eventually returns. Note that most of these nerves do not have cutaneous distribution, and therefore persistent superficial sensory changes, including dysesthesias, are uncommon.

The muscles innervated by medial branches undergo atrophy following successful denervation, but patients never complain of weakness or instability following the procedure. In fact, patients have even playing AFL finals and grand slam tennis within weeks of these procedures.

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AFTER THE PROCEDURE

Generally patients are discharged from the hospital within two hours and may resume normal activities the following day. Simple analgesics are often required for the first few days, and patients who have been using stronger analgesics generally require stronger analgesia. Burning (neuropathic pain) or numbness after the procedure may be felt, and other medication may be required in this instance.

Neuropathic pain is best treated with neural conductivity-altering medications. If the pain is present mainly at night, low dose tricyclics, such as amitriptyline 5-25mg, is suitable. For pain during walking hours, anti-epileptics such as gabapentin (100-300 mg doses) are preferred. Note that neuropathic pain is less likely to respond to analgesics. We often recommend topical mixtures of these medications and the compounding pharmacist is available should this be required.

Patients are advised to keep mobile with gentle exercise and stretching. An appointment for a review is made with a doctor or physician associate, six weeks post procedure.

HOW WILL THE RFN HELP?

Many studies have been undertaken to observe the efficacy of RFN. Initial papers focussed on neck pain and headaches after motor accidents. In a randomised, controlled double-blind study it was demonstrated that the inter-quartile improvement of more than 50% of pain relief was in the order of 500 days in the treatment group, and a few days in the control group. Subsequently it has been shown that lumbar RFN is effective for proven facet joint pain



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Side effects

- Allergic reaction to medications used in the procedure or sedation + nausea is not uncommon following sedation
- Infection is extremely unlikely due to our use of sterile techniques and all needles are disposed
- Post-procedure soreness is variable: most people's pain eases in a few days, but some last up to two months. All patients can resume normal activities rapidly regardless. In cervical radio-frequency neurotomy, chance of short term neuropathic pain (tingling, burning pain and sensitivity) may last up to 8 weeks
- It is uncommon for even a day of work to be lost; however for infection or excessive pain, time off may be necessary

MORE ON THE PAIN CHART

You should rate your pain between 0 and 10 before your injection, and after for 6 hours, firstly in 30 minute intervals and then hourly intervals. Ratings should be conducted in terms of movements and how you feel doing the things that most aggravate the pain.

FOR MORE INFORMATION



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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 Back, Neck and Joint, 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 condition, please speak to one of our doctors at the time of your consultation.