



## RADIOFREQUENCY NEUROTOMY AT X-RAY & IMAGING

This procedure is also known by other names eg. Radiofrequency Ablation RFA and occasionally by rhizolysis.

All these terms mean much the same and are used to describe the procedure which is designed to coagulate the nerve sheath and disable those nerves which transmit pain signals.

RFN is generally performed with CT guidance but sometimes ultrasound is used to guide the electrodes.

RFN is used to treat certain types of neck pain, thoracic pain and lower back pain. It is also used to treat certain types of headache including occipital neuralgia (Greater and Lesser Occipital nerves) and post whiplash neuralgia. Sacro-iliac joint pain (SIJ) can also be treated as can Morton's neuroma in the foot, plantar fasciitis, stump neuromas in amputees; and a number of other conditions.

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### **Transportation**

Patients having any spinal procedures ***must not*** drive a motor vehicle for at least 8 hours after the procedure.

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### **Tests Prior to RFN**

Various tests are performed to determine the suitability of this procedure. In the spine nerve blocks with local anaesthetic are generally performed on two separate occasions. These are termed "Medial Branch Blocks" (MBB's). More peripheral non-spinal lesions are also blocked with local anaesthetic to determine suitability for RFA, on at least one occasion.

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### **Risks**

These are very rare, and every precaution is taken to avert this possibility. Risks include ***infection*** which may very rarely require antibiotics or hospital admission.

Bleeding may occur at the entry site, or into deeper tissues but is rarely of any consequence. If the patient is on ANTICOAGULANTS including ASPIRIN, WARFARIN and those used to treat atrial fibrillation (AF) the risk of bleeding is increased.

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### **RFN-**

The procedure is performed by a radiologist who is trained and experienced in the procedure. These doctors are sometimes called Interventional Radiologists.

The skin is anaesthetised with local anaesthetic and then deeper local anaesthetic is used to infiltrate around the target area of the electrode pathway. The electrode is a fine needle through which a fine probe is passed and then connected to the RF generator to produce heat and radiofrequency energy at the distal 5mm of the electrode tip.

Long acting local anaesthetic at the tip enables a pain-free procedure.



## **Duration of the Procedure**

Most spinal RFN procedures take about 30 minutes, while more peripheral procedures may take longer.

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## **Following the Procedure**

Walk-in, walk-out is the general rule. Most patients have some localised discomfort in the area treated, but generally can be pain free following the procedure. Occasionally some patients need to rest in the department for 15 to 30 minutes after the procedure but generally most patients walk away pain free.

Patients should not drive for at least 8 hours after the procedure due to the lasting effects of local anaesthetic near spinal nerves.

Most patients return to work the following day, but maximum pain relief may not occur for up to three or four weeks.

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## **Duration of Response**

Average response time is around 9 months but some patients have up to 2 years of good pain reduction or complete pain relief.

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## **Nerve Fibre Recovery Time**

The nerves that have been treated will eventually grow back and when this happens the pain will probably return, at which time the procedure can be repeated without the need for more test procedures.

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## **Patients who are not suitable for RFN.**

- 1.) Some, but not all, patients who have pacemakers may not be able to have RFN. Generally, this only applies to patients with complete heart block and others who are totally pacemaker dependent.
  - 2.) Patients who are unable to stop their anticoagulant for a few days **may** not be suitable but this is rare.
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## **Follow-Up**

### **1.) Reports**

Generally, the radiologist will send a report to the referring doctor or your GP on the day of the procedure.

### **2.) After-Care**

The nurse or other qualified personnel will conduct a phone interview with the patient, as follows:

- a.) After MBB's, you will receive a phone call the day following the procedure or, for cervical MBB's, a week later.
  - b.) After RFN, you will receive a phone interview at 3 weeks, 3 months and 6 months to monitor your progress. This information is documented.
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## **Notes**

- 1.) If you have any queries our nurses and qualified staff are available to discuss the procedure.
- 2.) Bring your previous relevant imaging with you.
- 3.) We will endeavour to keep to your appointment time, but occasionally, emergency situations arise which can cause inadvertent delays. Also, some procedures on elderly patients may be complex so we ask you to be tolerant of such circumstances which are generally beyond our control.