

# RADIOFREQUENCY ABLATION FACT SHEET



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This fact sheet aims to answer some general questions about radiofrequency ablation. Please read the following information carefully. If you need further information about your particular procedure, please ask your doctor or pain nurse.

### What Is Radiofrequency Ablation?

Radiofrequency ablation is an interventional procedure consisting of electromagnetic waves that generate heat to target specific nerves to interrupt their ability to send pain messages to the brain. It is designed to provide longer term pain relief.

### Why Perform Radiofrequency Ablation?

For various reasons, specific nerves may become injured or sensitised, which result in pain as well as numbness, weakness, or tingling in the affected area. These nerves are commonly nerve roots branching off from the spinal cord, and when injured, cause neck, back or hip pain. Some common conditions in which specific nerve roots may be affected include spinal tumours and chronic pain syndromes.

Patients can require strong medication, such as opioids, and other medications that target nerve pain, in order to control this pain. However, these medications can also cause unwanted side effects like drowsiness, fatigue and constipation.

Radiofrequency ablation destroys the nerve tissue, which in turn reduces pain. It is important to remember that the procedure usually does not stop all pain, but it may lessen the need to use pain medication.

Most patients feel some, although not total, relief from pain after the procedure. The benefit of radiofrequency ablation varies from patient to patient, but it may last up to a year or even longer. It is important to note that

even though the procedure destroys nerve tissue, some recovery of the nerve tissue may occur and pain may return with the passage of time. In such cases, repeat radiofrequency ablation can be considered.

Generally, the pain is initially targeted by performing a nerve block. Please refer to the specific nerve block fact sheet for further, detailed information on what a nerve block entails. A nerve block serves dual purposes of both identifying successfully the specific nerve causing the pain, as well as providing pain relief. If a nerve block is successful in providing pain relief, radiofrequency ablation can be considered for a longer form of pain relief.

### What Happens Before and After the Procedure?

It is recommended that blood-thinning products be stopped prior to the procedure. You will be advised on the recommendation for your specific circumstances when we confirm your procedure. You will be able to continue taking all your other medications with a sip of water on the day of your procedure.

Please refer to the *Interventional Procedure Pre-Admission Fact Sheet* for further, detailed information.

### What Happens During the Procedure?

Radiofrequency ablation is performed under imaging guidance in the operating theatre or radiology department. The whole procedure usually takes 30 - 60 minutes. You may be sedated prior to the procedure.

Local anaesthetic will be injected under your skin to numb the discomfort of the radiofrequency electrode needle. The radiofrequency electrode needle will then be directed into the body under imaging guidance and positioned next to the target nerve. Electromagnetic waves are then passed through the electrode needle, which generates heat at the needle tip. The heat that is generated destroys the nerve tissue.

Following this, in many cases, a local anaesthetic will be injected around the nerve to numb the area. In some cases, the local anaesthetic solution will also contain a steroid. The steroid acts to reduce any inflammation or swelling around the nerve.

### **What Are Possible Side Effects?**

Any invasive interventions, including radiofrequency ablation, may cause complications that can be serious. By

performing the procedure under imaging guidance and sterile conditions, we aim to minimise the risk of serious complications.

Common side effects include:

- Pain, tenderness, swelling or bruising around the injection
- Weakness, numbness, heavy sensation in affected areas

Less common, but also possible complications:

- Infection (around the injection site internally or externally)
- Bleeding (around the injection site internally or externally)
- Allergic reaction to the dye or medicines injected
- Surrounding nerve or spinal block
- Injury to surrounding nerves
- Injury to surrounding organs
- Local anaesthetic toxicity