

Dorsal Root Ganglion Rhizotomy

A guide for patients

What is the dorsal root ganglion?

A ganglion is a cluster of nerve cells. The dorsal root ganglion contains the cell bodies of a cluster of nerve cells in the dorsal root. These relay sensory information such as pain signals to the brain. One dorsal root ganglion is associated with each spinal nerve. There are 8 cervical, 12 thoracic, 5 lumbar, 5 sacral and 1 coccygeal nerves that branch out from the spinal cord.

When is a dorsal root ganglion pulsed rhizotomy performed?

This is often performed for radicular pain, similar to a nerve root sleeve injection. By pulsing the dorsal root ganglion with radiofrequency waves, a longer period of pain relief may be achieved via modulation of the nerve fibres.



Before the Procedure

You will need to fast before the procedure. This means:

- No food 6 hours before
- No liquids (except water) 6 hours before. This includes coffee, tea, orange juice etc.
- You can drink water up to 2 hours before the procedure.

Take your usual medications with a small sip of water. Please contact us if you are taking any blood thinning medications, diabetes medication, pregnant, or unwell.

The Procedure

The procedure itself takes 15-30 minutes. It is a day case, meaning no overnight stay is required.

An Anaesthetist will provide sedation and monitor you during the procedure.

The procedure is performed in the operating room with fluoroscopy (X-ray) to ensure accurate needle placement. The needle is carefully placed into the nerve root where the dorsal root ganglion lies with contrast.

Sensory and motor stimulation may be used to further confirm correct placement.

Specialized equipment including the radiofrequency needle, probe and radiofrequency machine is used to heat the needle to a temperature of 42 degrees.

The nerve is pulsed with radiofrequency waves and local anaesthetic with steroid is injected following the nerve ablation.

The local anaesthetic provides immediate pain relief, whereas the pulsed radiofrequency and steroid may take several weeks to provide sustained pain relief.

Pain relief usually lasts between 6-12 months. The procedure can be repeated if your pain returns

After the Procedure

- You will be taken to recovery and monitored until you are ready for discharge.
- You will not be able to drive, so ensure someone can drive you home safely.
- Avoid over-exerting yourself immediately after the procedure.
- You may gradually return to your day-to-day activities.

If you develop any symptoms (fever, swelling, worsening weakness or numbness, bleeding, loss of bowel or bladder control) after the procedure or have any other concerns, please contact us, your GP, or your local Emergency Dept.

You will be reviewed by our pain nurse via telephone a few days after the procedure.



What are the risks?

No procedure is risk-free but the risks for this procedure are considered to be relatively low.

Possible risks include infection, bruising, haematoma, nerve injury and allergic reactions.

Infection is minimized with appropriate sterile and aseptic precautions.

Bleeding risk is minimized by stopping blood-thinning medications a few days prior.

If this applies to you, our pain nurse will remind you to stop your blood-thinning medications a few days prior to your procedure.

Risk of nerve injury is minimized as we use fluoroscopy to guide accurate needle placement.

Severe allergic reactions to the injectates (ie local anaesthetic, steroids) are very uncommon.

Steroids may produce side effects including stomach irritation, insomnia, mood swings, flushing, palpitations

Post-procedural flare is common after a rhizotomy and can be treated with painkillers.

Neurological complications including weakness, paraesthesia, numbness have been described but are extremely rare.

Radiofrequency treatment can produce patchy numbness on the overlying skin.

Patients need to be aware that the outcome of the procedure is variable between individuals and they may not receive the desired benefits. The therapeutic benefits of the procedure are transient, and repeat injections may be required.

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