

Nerve Root Sleeve Injection

A guide for patients

What is nerve root?

At each spinal level, a nerve branches out from the spinal cord to supply different regions of the body. The region where the nerve emerges from is called the nerve root. Connective tissue surrounds each nerve root and this is known as the nerve root sleeve. The nerve root sleeve connects with the epidural space so injections into this space can produce a transforaminal epidural injection. There are 8 cervical, 12 thoracic, 5 lumbar, 5 sacral and 1 coccygeal nerves that branch out from the spinal cord.

Can nerve root irritation cause pain?

Nerve roots can become irritated when they are compressed. Common causes include a herniated disc, facet joint hypertrophy, foraminal stenoses, or central canal stenoses. This often results in a shooting pain from your spine to a different area of your body (ie arm or leg). There may be an associated tingling and numbness sensation.

When is a nerve root sleeve injection performed?

A nerve root sleeve injection is often performed for radicular pain. Injection of local anaesthetic and steroid often helps to reduce the inflammation surrounding the nerve root, and subsequently reduces pain.



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 10-20 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. Contrast will be injected to confirm correct needle placement and spread of solution. Local anaesthetic and steroid is then deposited around the nerve root to reduce inflammation and provide 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.

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

Other rare complications include vascular trauma, particulate embolism, epidural haematoma and postdural puncture headaches.

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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