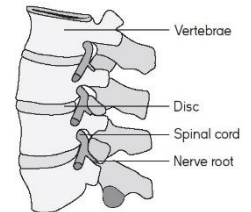


### What is a Nerve Root injection?

Your doctor or surgeon has referred you for a nerve root corticosteroid (steroid) injection as they believe that it may provide relief of your severe or prolonged (chronic) neck, back or leg pain. The injection can also be used to help to confirm the source of your pain. This information is beneficial for your doctors and can be helpful as a part of planning for future surgery. Steroid medication decreases inflammation. The injection is most suitable when the pain is caused by arthritis, such as disc degeneration or prolapsed disc (where the disc bulges) or scar tissue and swelling following spinal surgery.



The spine has many parts including the spinal cord, bony vertebrae, and spongy discs. On each side of the vertebrae is an opening called a 'foramen', through which a nerve exits on its way to the buttock or leg. A 'sleeve of fat surrounds the nerve'. Irritation and inflammation of the nerve can occur at this point, which causes pain. Under the guidance of a CT scanner, an injection of steroid medication and long-lasting local anaesthetic can be accurately made into the fat surrounding the nerve root. The procedure is performed by a specialist doctor called a radiologist.



### How long will the procedure take?



The procedure itself takes approximately 15 to 30 minutes. Our staff will monitor you for a few hours after the procedure to ensure that the sensation in your leg(s) or arm(s) is normal before you go home. You may be in our practice for up to 3 hours.

### Is there any special preparation required?

When booking your appointment, it is essential that you inform our staff if you have any allergies, take blood thinning medication, or are pregnant or breastfeeding.

Please list or bring all your prescribed medications, those medications that you buy over the counter, including herbal remedies and supplements.

If you take blood thinning medication, you may need to stop taking these for a few days or reduce your dose. **It is very important that you do not stop any blood thinning medications or change the dose without consulting with our radiology clinical staff and your own doctor.** They will give you specific instructions about when to stop and restart the medication. These drugs are usually prescribed to prevent stroke or heart attack, so it is very important that you do not stop taking them without being instructed to do so by your doctor or our clinical staff, or both. Aspirin is usually not stopped.

A blood test may be required to check your blood clotting on the day before the procedure. You should continue with pain medication and all other medications as usual.

### What do I need to do on the day of the procedure?

It is common to experience numbness or weakness in your leg(s) or arm(s) immediately following the injection. You, therefore, will need someone to drive you home after the procedure, and we advise you not to drive for the rest of the day.

The injection is performed with you lying on your stomach. If your stomach is 'too full', this can be uncomfortable. It helps to limit your food intake to a light meal in the 2 hours before your appointment.

On the day of your appointment, please ensure you bring:

- Your referral form (if you have it)
- All previous relevant scans or x-rays
- Medicare or and healthcare cards (e.g. DVA card or concession card)
- List of all medications

### What happens during the procedure?

A CT scan is used to assist the radiologist in identifying the site for the injection; this may be marked on your skin with a pen. An antiseptic solution is used to clean the skin, and a sterile drape applied to your back to reduce the risk of infection.

You will remain awake during the procedure. To prevent discomfort, the area where the nerve root injection will be performed may be numbed using local anaesthetic. Local anaesthetic causes a pinprick and stinging sensation that is uncomfortable for a few seconds.

Guided by the CT images, the radiologist will place a thin needle into the fat surrounding the nerve root, the correct location may be confirmed using a contrast medium (x-ray dye). After confirmation of the correct position of the needle, the corticosteroid and long-acting local anaesthetic are injected.

### Are there any after effects from the treatment?

You may notice an increase in your pain when the injection starts; this is most common if the nerve root is severely compressed. This pain eases off when the anaesthetic spreads around the compressed nerve root.

If some long-acting local anaesthetic leaks into the epidural space this can make your arm(s) or leg(s) feel numb for a few hours. This can be worrying; however, it is an uncommon complication, and it is important to be aware that the feeling and movement recovers quickly.

### What happens after the procedure?

Our staff will provide you with clear written instructions on ways to look after yourself following the injection. This includes information such as; avoiding strenuous activity for a few days, arranging a follow-up appointment with your referring doctor and how to look after the injection site.

### What are the benefits?

For patients with neck pain, the benefits of this procedure include relief of your usual arm or neck pain and avoidance of or delay in surgery. The pain relief provided by the injection is often not permanent, however the injections can be repeated if the pain returns. As long as no weakness develops in your arms because of the injection, the procedure can be repeated every 2 to 4 months.

For patients with back pain, the benefits include temporary or long-term pain relief. The injection may aid in your management by allowing you to undertake appropriate physiotherapy and may help in breaking the pain cycle. Pain relief also makes you more comfortable, allowing the disc protrusion to shrink. This may delay or remove the need for surgery.

### Are there any risks?

In referring you for this injection, your doctor believes that the benefits of this procedure for you are greater than the risks. There are some risks and complications associated with nerve root injection. The use of the CT scanner to guide the procedure minimises these risks.

- CT uses ionising radiation to produce the images. The radiation doses associated with guiding a nerve root injection are minimal, and the associated risks are negligible.
- Injection of the medication into a surrounding blood vessel may mean that the procedure does not work because the medication is carried away by the bloodstream.
- Inadvertent injection of the medication into the spinal fluid can result in temporary numbness of both limbs.
- Leakage of spinal fluid can occur and would cause a headache that lasts for a few days.

Nerve damage is possible; however, this is usually temporary and should improve over time. Permanent nerve damage is rare.

Less common risks and complications may include infection or damage to surrounding structures such as blood vessels, organs, and muscles. Some people may have an allergy to injected drugs, or the procedure may not be possible due to medical or technical reasons.

Before the injection the radiologist will discuss the procedure with you in detail, including any risks specific to you. You will be provided with the opportunity to ask questions. It may be necessary to do a formal consultation to make sure that the procedure is the most appropriate for you.

### **When do I get the results?**

The radiologist will send a report outlining the procedure to your referring doctor/ surgeon and your regular GP. It is important that you make a follow-up appointment with your referring doctor/ surgeon if the injection has not helped to ease your pain.

### **I still have questions; who can I ask?**

Medical information can be complex, and you may receive information that you do not fully understand. It is important for you to consider the risks and outcomes of the procedure as well as your personal needs before making a decision to undergo the procedure.

If you have read this online information and are still unsure if this is the correct procedure for you; before making a booking, you should discuss your questions or concerns with your referring doctor in the first instance. Your regular GP and/ or your family may also be a useful resource. Your referring doctor can answer questions about the risks and benefits of not having the procedure and other options for treatment.

If you have questions before your appointment about what is involved on the day, our staff would be happy to assist. Please contact the imaging centre where you have made your appointment.