



Thoracic and lumbar nerve root block

This leaflet explains why this procedure is performed, what it entails and the benefits and risks. If you have any other queries please call the Radiology Department on 0118 322 8368.

General advice

IMPORTANT: Please contact the Radiology Department at The Royal Berkshire Hospital on 0118 322 8368 if you are taking any blood thinning medication (anticoagulants or antiplatelets) such as Warfarin, Heparin, Clopidogrel or Dabigatran, which may need to be discontinued before your facet joint injection.

It is essential you identify a responsible adult who can accompany you to the department and then escort you home and stay with you for 24 hours.

What is a nerve root block and why am I having one?

A nerve root injection (otherwise referred to as a nerve block or foraminal block) can help patients who suffer from back and leg pain (sciatica). A nerve root injection is a sterile procedure to inject local anaesthetic and steroid around an affected nerve in the spine. The aim is to relieve symptoms usually caused by pressure from a bulging or protruding disc.

The procedure is undertaken in the Radiology Department by a radiologist (specialist x-ray doctor) and a radiographer.

What happens during the procedure?

Following a brief discussion with the doctor performing the procedure to check you understand the reason for the procedure, the possible complications and to confirm that you agree to go ahead, we will ask you to lie face down on a special X-ray table or CT scanner. Your back will be cleaned with antiseptic solution and local anaesthetic injected into your skin, which usually stings for a few seconds. The very thin 'spinal needle' is then inserted and carefully positioned under imaging guidance. A small amount of X-ray dye is first injected to prove the needle is correctly lying next to the nerve. This is followed by the injection of the local anaesthetic and steroid. The needle is then removed and a dressing applied.

Is a nerve root injection painful?

Nerve root injections are usually performed under local anaesthetic (you are awake but numbed), and are generally well tolerated. However, if, inadvertently the targeted nerve is directly touched by the needle (the nerves cannot be seen under X-ray, just their approximate position), you may feel a severe pain, similar to an electric shock, in your leg. The needle will be immediately withdrawn and this pain will rapidly ease off,

When the anaesthetic and steroid mix is injected next to nerve some patients may feel a slight pain and numbness in the back and leg. This is common and usually means the needle is correctly positioned.

Are there any risks with this treatment?

Nerve blocks, although generally safe, are not risk-free. There is an extremely small chance of infection and the procedure is carried out under sterile conditions to minimise this. Bleeding is extremely unlikely as the needles used are very fine, but as a precaution, we ask patients taking Warfarin, Clopidogrel or any other blood thinning agents other than aspirin, to contact the Radiology Department on 0118 322 8368 to discuss how these can be safely stopped. Aspirin can be taken as normal.

There are very rare reports of the injections causing serious nerve damage resulting in the permanent loss of leg function. This complication is estimated to occur only once in every million injections. More commonly, patients may experience a 'dead leg' which may last for several hours and very occasionally persists with minor loss of sensation or numbness.

What happens after the nerve root injection?

We normally ask patients to wait in the department for 10-20 minutes following the procedure to make sure there are no adverse effects before going home with their family member or friend. If you are feeling light-headed or your leg is severely numb, then you may be observed for longer. There is no guarantee that your pain will be relieved by the injection. In some patients where there is uncertainty as to which nerve is causing the pain, the injection is used to identify the painful nerve, as well as to improve the symptoms. Occasionally, if the first injection is ineffective, the procedure is repeated, targeting a different nerve, usually at an adjoining level in the spine.

All patients undergoing a nerve block are usually reviewed in the spinal pain clinic approximately 6-8 weeks after the procedure and are asked to keep a diary of the symptoms after the injection to assess their response and guide further treatment.

Further information

Royal College of Radiologists www.rcr.ac.uk

To find out more about our Trust visit www.royalberkshire.nhs.uk

Please ask if you need this information in another language or format.

RAD_0025

RBFT Radiology, September 2025

Next review due: September 2027