



Pulsed radiofrequency of a thoracic nerve root

This leaflet outlines what to expect during pulsed radiofrequency of a thoracic nerve root treatment in the Pain Management Unit at the Royal Berkshire Hospital.

What is a pulsed radiofrequency of a thoracic nerve root?

Pulsed radiofrequency is a technique that uses a high frequency current at the thoracic nerve root to stun the origin of the nerve as it leaves the spinal cord in the middle of your back on its way to your front. It uses an electricity generator to deliver the treatment through a needle. An injection of steroid may be given to try and reduce inflammation caused by the procedure. The steroid we use is not licensed by the Medicines Control Agency for this procedure, but it has been used without any problems in millions of patients worldwide.

Why am I having this procedure?

You have already had a thoracic nerve root block that you and the doctor thought helped to a degree, but that has worn off. Pulsed radiofrequency is a longer-lasting alternative to standard local anaesthetic injections.

Is this the right treatment for me?

Other treatment options will be discussed with you before deciding to go ahead with the injection(s) and your consent is needed. The decision on whether or not to go ahead with the injection(s) is a shared decision between you and your doctor. Your doctor will be able to provide you with up-to-date information about the likelihood of this being a successful treatment for you and how this treatment fits into the best pathway of care. If you are undecided about whether or not to have injection(s) then further advice and information to make this informed decision can be provided. Please speak to your doctor for more information.

If your health has changed, it is important to let your doctor know:

- If you have an infection in your body or on the skin of your back, your doctor will postpone the treatment until the infection is cleared.
- If you have been started on anticoagulant or antiplatelet medicines that “thin the blood” such as warfarin, heparin, apixaban or clopidogrel, this may require extra preparation.
- If you suffer from diabetes, the use of steroids during injections may cause your blood sugar to change requiring monitoring and adjustment of your diabetic medication.
- If you have any allergies
- You must also inform the doctor if there is any chance that you could be pregnant.
- Finally, if you are planning to fly or travel abroad within two weeks after the injections, please let your doctor know.

Are there any risks?

The procedure may fail to provide you with the expected relief. Unfortunately, we don't know if this is going to be the case until we have done it.

Occasionally, you may develop a headache. If you take painkillers and drink lots of water it should settle on its own. If your headache persists beyond 24 hours, please seek medical advice.

Other risks are rarer and may include infection, bleeding, temporary worsening of the pain, nerve damage and lowering in blood pressure (with lightheadedness and nausea). There is a very small risk of puncture of the lung and infection around the heart and spinal cord damage. Your lower body may feel weak after the procedure. If there are any untoward complications we may need to admit you into hospital.

There is also a small risk that the steroid can temporarily lower your immunity and increase your risk of catching covid-19.

What will happen between now and the injection?

The doctor may have prescribed some painkillers for you to take and unless they are giving you side effects or not helping, you should continue to take them as advised.

What will happen on the day of the injection?

After you have been checked in by a nurse, your doctor will explain the procedure to you and offer you the chance to ask questions. Sedation is not normally required for this procedure, but if you feel particularly anxious, it may be offered after discussion with your doctor. Then you will be asked to sign a consent form.

After that you will be escorted into the treatment room. A small plastic needle may be inserted into the back of your hand. Then you will be asked to lie on your front on the procedures table. Your back will be cleaned with antiseptic solution and some local anaesthetic will be injected into your skin. This will sting. You may feel a pushing sensation as the needle is put into the right place. An X-ray machine and X-ray dye will be used during the procedure to help identify the correct position of the needle. Then the doctor will connect the needle to the generator to test the position of the needle. Once this is done, the treatment will start and will last 2-5 minutes. Then the needle will be removed, your back will be cleaned and a spray dressing will be applied to the area where the injection has been given.

You will be then transferred onto a trolley or a wheelchair and taken back to your ward where you can eat and drink. Your blood pressure and pulse will be checked. If your blood pressure and pulse remain within normal and safe limits you will be allowed to go home, once all discharge criteria are satisfied.

How will I feel afterwards?

Your front may feel: Warm / Tingly / Numb / Stiff / No different

You may develop: Lightheadedness / Nausea / Flushing / Headache / Flu like symptoms

Important things to remember

- You will need a responsible adult who will take you home and stay with you overnight.
- If you have any special requirements, please contact the Pain Management Unit at least 48 hours in advance.
- Please bring your regular painkillers with you.
- Bring a dressing gown and slippers with you.
- If you are on any blood thinners then you need to discuss this with your doctor regarding stopping it, before your procedure.

Can I drive afterwards?

You should not drive for 24 hours after the injection, as your insurance may be void if you are in an accident.

When can I shower/bathe?

Usually, the day after the procedure.

When can I return to normal activity?

The procedure may take up to 3 days to fully settle despite a possible initial improvement. Your back may take up to 2 weeks to recover. You may do gentle physical activity for 24 to 48 hours following the procedure. If your job is physical, up to 5 days of gentle activity is advisable. If your job is sedentary, you may return within 48 hours. However, each individual's response may vary following the procedure.

Any queries?

If you have any concerns regarding this treatment please contact:

During working hours: Pain Management Unit 0118 322 8261.

Out of hours / weekends: please contact your GP or the out of hours service for advice.

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

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

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Next review due: June 2026.