



Lumbar Rhizolysis or Radiofrequency Lesioning (RFL)

Information for patients



**New Hall
Hospital**

Part of Ramsay Health Care

What is a **Lumbar Rhizolysis**?

If you have had a change in your back pain symptoms following a diagnostic injection called a Medial Branch Block (MBB), this confirms that the structures supplied by the nerve called the Medial Branch of the Posterior Ramus are, at least in part, responsible for your symptoms. A special needle is attached to a radio frequency machine. The tip of the needle is then applied to your Medial Branch of the Posterior Ramus. The Consultant checks that the needle is in the correct place by placing a current through the tip of the needle. You may feel a tingling sensation. Sometimes the muscles supplied by the nerve twitch if the needle is in the right spot. The Consultant then heats the tip of the needle using the radio frequency waves, which deliberately damages (denervates) your nerve so that it can no longer send pain messages from your joint. Usually several levels in the low back are treated in one sitting. The procedure can be done on one side, or both sides, depending on your symptoms. This technique is called Rhizolysis or Radio frequency Lesioning (RFL). It can also be called Frequency Nerve Ablation or Denervation.



Why do I need this injection?

Lumbar Rhizolysis/RFL

- The nerve that supplies the facet joints and some of the muscles in your lower back (lumbar spine) is called the Medial Branch of the Posterior Ramus. By deliberately damaging this nerve using heat from radiofrequency waves, we aim to stop the nerve carrying the pain signal from the joints in your lower back.
- Sometimes the facet joints in your back can refer pain into the top part of your leg, but usually the back pain is worse than the leg pain. Rhizolysis may reduce or eliminate this leg pain, especially if it reduced, even temporarily, following your Medial Branch Block injection.

Giving you a window of pain relief from your low back, buttock or pain, enables you to gradually return to increased levels of activity and exercise. In the long term, exercise has been shown to be the best way to manage chronic low back pain.

Consent

Your Spinal Consultant will explain the risks and benefits to the procedure. These are also outlined in this leaflet. You will be asked to sign a Consent Form prior to the injection. If you have any questions, then please feel free to ask any member of the Spinal Team. There is also a patient information leaflet on consent, that you can read for more information - please ask if you would like a copy.

What are **the risks?**

Common

- Pain and bruising at the injection site. This will improve after a few days and not everyone experiences it.
- Discomfort and a local buzzing sensation during the procedure.
- A temporary worsening of back pain while the structures recover.

- Feeling faint as you may have a temporary reduction in blood pressure

Rare

- Allergic reaction to the local anaesthetic, antiseptic or plasters used. If you have any known allergies, then please advise your spinal medical team prior to the procedure.
- Infection at the needle site.

Very Rare

- With Lumbar Rhizolysis/RFL, there is a rare chance of damage to the nerve root, which sits in front of the joint, via trauma from the needle or a bleed around the nerve. Any of these complications could put more pressure on the nerve. This could lead to an increase in leg symptoms. This is rare as the injection is done under X-Ray guidance so the Consultant can accurately place the needle.

What are the benefits?

- By reducing your pain, you may then be able to engage with other beneficial activities such as exercise or manual therapy.
- Your day to day function, sleep and ability to return to normal activity of daily living may improve as pain reduces.
- You may be able to reduce your current pain medication under advice from your GP, if your symptoms improve.

How do I prepare?

Please advise us if any of the following apply:

- You have tested positive for MRSA.
- You are feeling unwell or have a temperature.
- You have been admitted to hospital since being placed on the waiting list for the injection.
- There is any possibility you might be pregnant. The procedure is done using an X-Ray.

- If you have a blood clotting disorder.
- If you are taking any medication that thins your blood.

Please ensure that a responsible adult accompanies you to the hospital and is able to drive you home afterward. This is because you will be unsafe to drive after the procedure due to the potential numbing effect of the local anaesthetic on your leg. We do not recommend that you use public transport. By the following day the numbness should have worn off.

What happens **during the procedure?**

You will be sent an appointment to come to the hospital to have your injection. Expect to be in the hospital for 3-4 hours, although often you may be able to go home more quickly than this. You will be asked to change into a hospital gown. Your back will be cleaned with antiseptic solution. The injections are done under X-Ray guidance. Local anaesthetic will be injected to numb the skin which can sting. A fine needle is then introduced into your back down to the nerve to be blocked and more anaesthetic will be introduced around it.

The needle is attached to the radio frequency machine via an electric cable. The Consultant will check that the needle is in the right place by sending a small electrical signal down the needle. You may feel some local buzzing or tingling. The muscle in your back that is supplied by the nerve may also twitch. This is often a good indicator that the needle is in the right place. The tip of the needle is then heated using the radio frequency waves. This deliberately damages the nerve, to stop it carrying a pain signal. The same procedure is done to several levels in your back, usually in the same place as you had your medial branch block procedure. This can be done on one side, or both sides, depending on your symptoms. The whole procedure takes on average 20-40 minutes, depending on how many levels you have treated.

What happens **after the procedure?**

You will be transferred to a recovery area. When you feel sufficiently well enough and staff are satisfied with your vital signs, you will be discharged. The person accompanying you can then drive you home. Make a note of any changes in your back or leg pain, for the first 6 hours after the Rhizolysis. You may choose to use the pain diary at the end of this leaflet to record the change in pain levels as they occur.

It's common for the pain in your back to be temporarily worse after Rhizolysis/RFL. This can last for several days, but sometimes several weeks as the structures recover. We therefore recommend that you continue with your usual pain relief medications. The following day you can gradually and gently return to normal day to day activities. We would advise you to avoid strenuous activity for 48 hours after the procedure.

Will I have a **follow up appointment?**

A follow up appointment is not usually required after this procedure. If successful, you can get pain relief from anywhere between weeks and years. The nerve that has been damaged, will try to regenerate and can grow back and re-establish a connection again with the lumbar facet joint. It is really important, therefore, to use any window of pain relief that this procedure provides to pace a gentle return to regular exercise. It is the ongoing exercise that lubricates your joints and strengthens your muscles. People who are active and regularly exercise get less episodes of back pain. They are generally able to cope better with these episodes and the pain tends to settle more quickly. Rhizolysis/RFL does not work for everyone. If you do not respond, then there may be other pain mechanisms at work driving your symptoms. This short and clear video helps to explain why you can have ongoing pain symptoms, despite treatment. Tame The Beast: <https://www.youtube.com/watch?v=ikUzvSph7Z4>

A referral to Pain Clinic may be useful if this procedure does not help. It is rare to have surgery for back pain alone, due to the limited benefits. You will be left on a Patient Initiated Follow Up (PIFU) appointment for 3 months after rhizolysis, which means you can contact your spinal specialist if required.

Who do I contact **if I have concerns?**

If you are worried about any symptoms after your injection you can contact the Spinal Nurse Specialist Team.

Remember it is common to experience temporary increase in symptoms in the back and leg after the injection and you should manage this by taking pain relief as prescribed by your GP and adjusting your activities.

Contact us if:

- Your injection site shows signs of infection such as discharge or redness/swelling lasting more than the initial few days or if you have a fever or feel unwell.
- You experience unremitting severe pain, or new pain, weakness or altered sensation in a different place or limb from your symptoms prior to the injection.

If you are unable to reach the Spinal Nurses or you have an urgent query outside of the hours the Spinal Nurses are available, contact your GP or local Out of Hours Service.

Useful Contact Numbers:

Spinal Nurse Specialists: 01722 435 175. Leave a message on the answering machine. Messages will be reviewed between **Monday - Friday 8:00am - 3:30pm**. Please leave your telephone number and details and we will call you back.

For follow up appointments, contact your Spinal Team's Secretary:

Mr Hilton	01305 257 096 / 01722 435 164
Mr Stenning	01305 257 096 / 01722 435 686
Mr Chapple	NHS 01722 435 183 / Private 01722 435 167
Mr Dabke	01722 435 176
Mr Davies	01722 435 682
Mr Fowler	01722 435 176
Mr Evans	01722 435 697
Dr Park	01305 257 096
Elaine Robinson	01722 435 168
James Beck	01305 257 096
Main Switchboard	01722 422 333

Pain **Diary:**

Pain score: 0 is no pain, 10 is very severe pain.



	Back Pain	Leg Pain
Prior to injection		
First 6 hours after injection		
24 hours after injection		
Two weeks after injection		
One month after injection		
Two months after injection		

References:

1. Royal College of Anaesthetists (2019) Anaesthesia Explained: Side Effects and Complications <https://www.rcoa.ac.uk/documents/anaesthesia-explained/side-effects-complications>

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