Radiofrequency Denervation of the lumbar facet joints
Information for patients
What is radiofrequency denervation of the lumbar facet joints?

Radiofrequency denervation is a specialised injection, which uses heat to alter the function of the nerves that supply the facet joints in your back. These nerves transmit the pain signals from these joints to your brain. The procedure is carried out using X-rays to guide the injection, in a similar way to the diagnostic tests.

Radiofrequency denervation of the nerves is performed by placing special needles alongside the nerves to the facet joints, then passing an electrical current through each needle. This creates heat at the needle tip, which results in a change to the structure and function of the nerve. This can lead to a reduction of pain.

What are the risks and side effects of radiofrequency denervation?

The risks most commonly encountered with this procedure are:

1. pain after the procedure
2. no reduction in your pain
3. the risk of nerve injury – this is rare (a less than 1 in 10,000 chance).
4. a small risk of feeling faint during or after the procedure.
   We will be monitoring your heart rate and blood pressure throughout the treatment and, if necessary, we will give you intravenous fluids to help with this.
5. infection.
What to do on the morning of your radiofrequency denervation

You will need to have someone to bring you to hospital and take you home from the appointment. You should not go home on public transport after this procedure. You will need to be taken home by car. This will be more comfortable for you and also quicker for you to return to the hospital if there are any complications on the journey home. If you do not have someone to drive you home, we will need to cancel the appointment.

You will be at the pain clinic for about 3 hours in total. You will **not** be staying overnight in the hospital.

Please do not wear any jewellery, as this can affect the X-ray images that we see on the screen.

It is important that you arrive at the pain clinic at the appointment time. Due to the number of people we need to see each day, if you are late we will not be able to carry out the treatment. Please allow plenty of time for your journey and to park, as the hospital car parks can be very busy.

It is possible that you will need to take time off work after the procedure, to recover. We will let you know how long you may need to take off work when you come for the procedure.
What happens during the radiofrequency denervation?

When you arrive at the department you will be taken upstairs to the treatment area by one of the nursing staff. The person who has accompanied you won’t be allowed in the treatment area, but they can wait in the waiting area.

One of the nurses will complete the pre-procedure assessment documentation with you. You will need to let the nurse or doctor know if:

• you are allergic to anything (e.g. local anaesthetic, steroids, iodine or sticking plasters)
• you are taking or have recently taken antibiotics for an infection
• you are taking any medicines to thin your blood, such as warfarin, aspirin, ticlopidine, sinthrone or clopidogrel
• you feel unwell on the day
• you have any other serious medical conditions
• you have had surgery for any other medical problems in the last 3 months
• you have any metalwork or electrical devices implanted in your body (e.g. joint replacement or pacemaker).

If you are a woman aged between 12 and 55 years old we will need you to fill in a form to confirm that you are not likely to be pregnant. This is because X-rays can harm unborn children.

One of the nurses will ask you to change into a theatre gown. When you are changed, you will be shown into the treatment room.

The doctor will ask you to sign a consent form to confirm you are happy with the procedure going ahead. If there is anything you are unsure about, or if you have any questions, please ask the doctor or nurse before signing the consent form.
We will put a cannula (small tube) into your hand, which will be used if we need to give you fluids or medication during the procedure. We will also connect you to monitors to check your heart rate and blood pressure throughout the procedure.

You will be asked to lie on your front on the treatment bed. The doctor will inject local anaesthetic into the area of your back that is to be treated, to numb your skin. You may feel a slight stinging when this is done, but your skin will soon go numb.

Once your skin has gone numb, the doctor will place the needles in position, close to the facet joints, using the X-ray images to guide them. When the needles are in place, the nerves to the facet joints will be stimulated by a light electrical current; this makes sure the needles are in the right place. You will feel a tingling sensation or a deep ache in your back when this is carried out. For this reason you need to be awake during the procedure, as you will need to tell the doctor when you can feel this sensation.

When the doctor is confident that the needles are in the right position, they will give you more local anaesthetic. The radiofrequency denervation will then be carried out. You may feel a little pain when this is done. Your pain will be assessed throughout the procedure, and we can give you additional pain relief if needed.

**How long will the procedure take?**

The procedure will take approximately 45 minutes. However, the total time you will be in the department will be approximately 3 hours. This allows us to book you in, check your details and for you to rest afterwards.
What happens after the procedure?

You may experience some pain in your back after the procedure. Take your usual painkillers and use an ice pack. Ice packs should not be placed directly in contact with your skin as this can cause a ‘burn’. Place a flannel or towel between the ice pack and your skin. Please check the colour of your skin 5 minutes after applying the ice pack. If it is bright pink or red, remove the ice pack. If it is not pink, the ice pack can be applied for a further 5-10 minutes. This can be repeated every 2-3 hours. Please do not use an ice pack for more than 20 minutes at a time, as it is unlikely to have any benefit and may cause damage to your skin.

Do not be concerned if the pain continues for up to 2 weeks after the procedure, this is normal. There is a small chance that your original back pain may increase for this period of time.

Although this treatment can give you a good level of pain relief, it is not likely to completely relieve your pain. If the treatment is successful, you are likely to experience a 50-80% reduction in your pain. The success rate for this procedure is between 60-65% (60-65 people out of 100 will have a good level of pain relief).

We will arrange a telephone appointment with one of the nurses, approximately 8 weeks after the procedure. They will ask you a series of questions to work out how effective the procedure has been.

Signs and symptoms to look out for

If you notice any redness or swelling around the area where the needles were inserted, or you have any other concerns after you return home, please contact your GP.
What if my pain improves?

The effects of the procedure can last from 8 to 24 months. If, after this time, your pain returns, we may be able to repeat the procedure.

If you start to experience pain relief, you can gradually increase your activities.

Please note:
- If you experience pain relief, it is important to remember that you still have the underlying problem that caused the pain. We have treated many people who have felt better and have returned to activities such as moving furniture, painting the house, etc. These people have had their pain return very quickly – sometimes within days of feeling better.
- **Do not** start off by doing all of the activities that you have been unable to do because of the pain. It is important to take part in a physiotherapy and/or gradual exercise program, to strengthen the surrounding and supporting muscles that have not been used while you have had pain.

What if the procedure does not help my pain?

Unfortunately, this procedure does not work for everyone, despite the diagnostic testing procedures carried out beforehand. If the procedure doesn’t work for you, we will have to think carefully of the next step, but it may be there is nothing more that we can offer you. The doctor who referred you for this procedure will be notified of the results, and you will be reviewed by one of the consultants in clinic.
How to contact us

If you have any questions or need any further information, please contact:

**Pain Relief Unit Nurse Advice voicemail**
Tel: **01865 857 107**
Please leave a message and one of the nursing staff will return your call within two working days. For urgent advice please contact your GP or NHS 111 (dial 111 freephone from mobiles and landlines).
Email: painreliefteam.ouh@nhs.net

**For appointment enquiries**
Tel: **01865 572 079**
(Monday to Friday, 8.30am to 5.00pm)

If you have a specific requirement, need an interpreter, a document in Easy Read, another language, large print, Braille or audio version, please call **01865 221 473** or email **PALSJR@ouh.nhs.uk**