The Royal Wolverhampton NHS Trust

Facet Joint Radiofrequency (Denervation) for Chronic Pain Management

What is Radiofrequency denervation?

Radiofrequency facet joint denervation is a safe and effective day case procedure for the treatment of back or neck pain arising from the lumbar or cervical facet joints. It is also known as radiofrequency ablation, neurotomy, lesioning or rhizolysis.

Radiofrequency denervation is a procedure in which nerve fibres supplying painful facet joints are selectively destroyed by heat produced by radio waves delivered through an electrode.

Facet joints connect the bones of the spine. These small joints at the back of the spine provide stability and flexibility to the spine and can become painful with age, wear and tear or with injury. The facet joints are the source of pain in up to 40% of older patients with back pain and over 50% of patients with neck pain after whiplash injuries. Medial branch nerves, located near the facet joints, transmit the pain signals from the facet joints to your brain.

If the lumbar or cervical facet joints have been confirmed as the source of your pain, usually by diagnostic facet joint or medial branch blocks (see facet joint injections and medial branch blocks leaflet), then it is likely that radiofrequency facet joint denervation will be an effective treatment for your back or neck pain. Radiofrequency energy is used to disrupt the function of a medial branch nerve, so that it can no longer transmit pain signals from a facet joint.

Consent

We must seek your consent for any procedure or treatment beforehand. Your doctor will explain the risks, benefits, and alternatives where relevant before they ask for your consent. If you are unsure about any aspect of the procedure or treatment proposed, please do not hesitate to ask for more information.

What are the benefits of Radiofrequency denervation?

Our own experience shows that about 60% of patients with facet joint pain experience significant pain relief from this procedure provided they have had some limited pain relief from simple facet joint injections. The relief can last up to a couple of years and can be repeated if symptoms return.

The prevention of infection is a major priority in all healthcare and everyone has a part to play.

- Please decontaminate your hands frequently for 20 seconds using soap and water or alcohol gel if available
- If you have symptoms of diarrhoea and/or vomiting, cough or other respiratory symptoms, a temperature or any loss of taste or smell please do not visit the hospital or any other care facility and seek advice from 111
- Keep the environment clean and tidy
- Let's work together to keep infections out of our hospitals and care homes.



Repeat Radiofrequency denervation procedure is only performed at a minimum interval of 12 months and must be part of a comprehensive treatment pathway by a multidisciplinary team (see physiotherapy). This procedure will not work in all patients.

Are there any side effects / risks to this procedure?

Facet Joint Radiofrequency denervation has been subject to several clinical trials and evaluations over the years and has proved to be safe and effective. With x-ray guidance the chances of harm are small. The facet joint nerves are not required for any other purpose but to transmit pain signals from the facet joint. This procedure does not affect any other structure. Following radiofrequency denervation, there may be soreness in the area where the needles were placed. Patients may also have some numbness of the skin around the injection site. Cold compresses applied to the area immediately following the procedure, will relieve some of the discomfort. There is, however, a very small risk of infection, nerve damage and neuralgic pain associated with this procedure (0.01%). Neuralgic pain tends to settle down in 2-3 weeks.

If you take Aspirin, Warfarin or Clopidogrel there is a risk of internal bleeding / haematoma with Radiofrequency denervation, generally the procedure should not be done without stopping these medications. Please seek advice from your GP regarding the safety of stopping these medications. There is a small risk that the pain will be increased permanently. Steroids may cause short term fluid retention with weight gain. Steroids may affect the menstrual cycle for 1-2 cycles.

What are the alternatives to facet joint radiofrequency?

Alternatives will have been discussed with you at your consultation. Depending on your particular situation these can include measures such as medications, physiotherapy and acupuncture. There may be no alternatives.

What happens before the procedure?

- You will be seen by your Consultant and given information about the procedure. You will be able to ask questions and then sign a Consent form. You will be placed on the waiting list
- You will have your procedure as an outpatient at The Appleby Suite, New Cross Hospital. This will be confirmed beforehand at your clinic appointment
- You will be sent a letter confirming the date and time of your appointment. It may be a morning or an afternoon appointment. You will be informed if you need to stop any medications
- If you take Aspirin, Warfarin, or Clopidogrel you will need to stop these for five to seven days before the procedure. However, you must seek advice from your GP if you are allowed to do so.
- Your stay may be between two to six hours so please bring something with you to keep yourself occupied. Before any treatment begins you will be asked to provide assurance that someone is able to drive you home and monitor you (be contactable) overnight in case of emergencies
- You will be contacted a few days before to ensure you are well enough to attend for your procedure. This is to make sure infection control policies are adhered to
- You will be admitted by a nurse and asked to change into a theatre gown and your blood pressure and pulse will be recorded
- Prior to the procedure, your Consultant will explain the procedure again You will be able to ask questions about your treatment. When you are completely satisfied that you would like to continue, we will ask you to sign the consent form again to confirm your understanding

It is important you tell the doctor if:

- You are taking Aspirin, Warfarin or similar drugs
- You have a bleeding problem
- You are allergic to local anaesthetic / medications
- You have any other serious medical problems
- Or if you are unwell on the day.

What happens during the procedure?

- You will be escorted from your bed space to the treatment room
- You will be assisted to move into an appropriate position on the X-ray table to expose a small area of your back
- The skin of the lower back is then sprayed with antiseptic. This may feel very cold
- The skin over the area to be injected is frozen with local anaesthetic; this may sting a little.
- A fine insulated needle is passed under X-ray guidance to a point near the spine where the appropriate facet joint nerve lies. Once in position a small current is passed down the needle. This stimulates the nerve and causes some mild tingling in the back or mild muscle tightness. This indicates that the needle is lying right next to the nerve
- After some local anaesthetic is injected, the needle tip is heated by radio waves (a bit like microwaves) to just below boiling point for 60 to 160 seconds. This is not painful but you may experience some discomfort at the time of burning nerves and is repeated on all the affected joints

What happens after the procedure?

- You will be taken to the recovery area where the nursing staff will observe you
- You may feel a little drowsy and wish to sleep
- You will remain lying down for 30 minutes and then be assisted to sit up. We will offer you some light refreshment
- Your blood pressure and pulse will be monitored frequently. You may be in hospital for up to six hours
- Before you leave, the Consultant will see you again and ask a few questions about your pain and any affects the injection may have had
- You will be sent a follow-up appointment through the post

How will I feel?

You may experience low back discomfort and a 'bruised' feeling for anything up to two weeks after the procedure. We normally suggest taking things gently during this time. After a one to two week period, it is essential that you undertake regular back exercise and stretches. The combination of facet joint radiofrequency denervation and structured graded exercise has been proven to give longterm benefits and overall improved results.

Importance of attending the physiotherapy

Following your procedure you will be referred to the chronic pain management physiotherapy service. This appointment maybe with an individual physiotherapist or in a group setting. Attending physiotherapy and taking an active role in the treatments recommended is an essential part of the process to achieve the best outcome from your procedure.

Failure to attend your physiotherapy appointment may result in you being discharged from the chronic pain management service entirely.

When will I be able to drive?

We don't recommend that you drive yourself home after the procedure, so please arrange to have someone with you or to collect you. You should be able to resume driving as soon as you feel you have recovered fully from the procedure.

What are the follow up arrangements?

You will be sent an appointment for a review consultation. This appointment will take place approximately four to six months after your injection and will be either your Consultant or the Pain Nurse depending on clinic availability. It would be helpful if you kept a diary of your experiences following injection as this helps with reviewing its effectiveness.

What to remember for your appointment?

- Please bring your glasses if you need them for reading
- Always bring a list of all current medications
- If there is any possibility you may be pregnant please inform the doctor or nurse

Additional information

Further information about chronic pain conditions and treatments you may wish to search the following website:

The British Pain Society available at: www.britishpainsociety.org.uk

If you require any further information or have any further queries, please discuss this with your consultant before starting the treatment.

Pain Management Helpline (01902) 695122

English

If you need information in another way like easy read or a different language please let us know.

If you need an interpreter or assistance please let us know.

Lithuanian

Jeigu norėtumėte, kad informacija jums būtų pateikta kitu būdu, pavyzdžiui, supaprastinta forma ar kita kalba, prašome mums apie tai pranešti.

Jeigu jums reikia vertėjo ar kitos pagalbos, prašome mums apie tai pranešti.

Polish

Jeżeli chcieliby Państwo otrzymać te informacje w innej postaci, na przykład w wersji łatwej do czytania lub w innym języku, prosimy powiedzieć nam o tym.

Prosimy poinformować nas również, jeżeli potrzebowaliby Państwo usługi tłumaczenia ustnego lub innej pomocy.

Punjabi

ਜੇ ਤੁਹਾਨੂੰ ਇਹ ਜਾਣਕਾਰੀ ਕਿਸੇ ਹੋਰ ਰੂਪ ਵਿਚ, ਜਿਵੇਂ ਪੜ੍ਹਨ ਵਿਚ ਆਸਾਨ ਰੂਪ ਜਾਂ ਕਿਸੇ ਦੂਜੀ ਭਾਸ਼ਾ ਵਿਚ, ਚਾਹੀਦੀ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

ਜੇ ਤੁਹਾਨੂੰ ਦੁਭਾਸ਼ੀਏ ਦੀ ਜਾਂ ਸਹਾਇਤਾ ਦੀ ਲੋੜ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

Romanian

Dacă aveți nevoie de informații în alt format, ca de exemplu caractere ușor de citit sau altă limbă, vă rugăm să ne informați.

Dacă aveți nevoie de un interpret sau de asistență, vă rugăm să ne informați.

Traditional Chinese

如果您需要以其他方式了解信息,如易读或其他语种,请告诉我们。 如果您需要口译人员或帮助,请告诉我们。

> Designed & Produced by the Department of Clinical Illustration, New Cross Hospital, Wolverhampton, WV10 0QP Tel: 01902 695377.