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Genicular Nerves Denervation (Radiofrequency Ablation) for the management of pain

The aim of this leaflet is to give you information about Genicular Nerve Denervation (Radiofrequency Ablation) and to answer some questions that you may have. Please note that different places may do things differently. Your doctor will be able to explain fully what to expect.

What is genicular nerves denervation?

A denervation (neurotomy) is a procedure that aims to change the way pain is transmitted from the nerves to the brain. The nerves are treated by heating them using a special device, called a radio-frequency machine. By selectively applying radio-frequency to the nerves (genicular nerves) surrounding the knee, one can effectively relieve pain in the knee.

Is this the right treatment for me?

If you had temporary pain relief, with the local anaesthetic and steroid injections, it is possible that after genicular nerve denervation you may experience longer-lasting pain relief. Other treatment options will be discussed with you before deciding to have the procedure and your consent is needed. The decision on whether or not to have the procedure is made together by your doctor and you. Your doctor will be able to provide you with up-to-date information about the chance of this treatment working for you and how it fits in with other care. If you are undecided about whether or not to have the procedure then more advice and information can be given. 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 over the knees, your doctor may wait until the infection is cleared before giving the treatment.
- ▶ If you have been started on anticoagulant or antiplatelet medicines that "thin the blood" such as warfarin, heparin, apixaban, rivaroxaban or clopidogrel, extra preparation may be needed before you have the treatment.
- ▶ If you have any allergies.
- ▶ If you have a pacemaker or other electrical implants.

You must also tell the doctor if there is any chance that you could be pregnant.

What will happen to me during the procedure?

Before the treatment, your doctor will discuss the procedure with you. Your doctor will either ask for your consent before the treatment or ask you to confirm that you have already given consent and are still happy to have the treatment. The treatment

will take place in a dedicated area with a trained person. Not all doctors do these treatments in exactly the same way but this is what usually happens:

- ▶ The procedure is carried out under Ultrasound guidance and/or X-ray screening. This allows the doctor to identify the targets to be treated.
- ▶ A healthcare professional will get you ready for the procedure. Your blood pressure and pulse rate will be checked.
- ▶ A small self-adhesive foil plate will be placed on your body.
- ▶ You will be carefully positioned and the skin around the treatment site will be cleaned with an antiseptic solution or spray; this can feel very cold.
- ▶ A local anaesthetic is injected at the site of the procedure. This may sting initially, before the skin goes numb.
- ▶ It is important that you keep still during the procedure as a special needle will be carefully inserted into the correct position. This may feel a bit uncomfortable.
- ▶ The doctor may ask you to say when you can feel a mild pain in your knee or a twitch in your foot as the machine settings are adjusted. This is very important as it makes sure that the needle is in the right place.
- ▶ The machine settings will then be set to treat the nerve by heating it for about two minutes. During this period, you may experience some pain at the site of the procedure.
- ▶ A small dressing will be placed over the treatment sites.

What will happen to me after the procedure?

After the treatment you will be taken to a recovery or ward area where nursing staff will check on you. Your blood pressure and pulse may be checked. You will be given further advice when you are ready to go home.

When will I be able to go home from hospital after my procedure?

You will usually be able to go home within 30 minutes to a few hours after the procedure, depending on how many treatment sites are needed and how long your doctor or nurse want you to stay. Please make sure that you have someone to collect you after the procedure. It is unsafe for you to drive home immediately after the procedure. If you do so your motor insurance will be invalid.

What can I do after my procedure?

Ideally, you should arrange for someone to stay with you for 24 hours but, if you can't, you should at least have access to a telephone. You should not drive, operate machinery, sign legal documents, provide childcare without help or drink alcohol until fit to do so. If you are not sure, please ask your doctor for more advice.

When can I return to work after the procedure?

This will be different for different people and may depend on the type of work you do. It is difficult to give general advice and so you should discuss this with your doctor.

Will I experience any side-effects?

As with any procedure, there may be side effects. However, these are usually very minor and there is little risk of serious harm.

Side-effects may include:

- ▶ Mild local tenderness and/or bruising at the site of the procedure, that usually gets better over the first few days.
- ▶ A prickling sunburn-like sensation over the skin around the knee, that usually gets better with time but may last a few weeks. Very rarely, this procedure can cause skin burns.
- ▶ Very rarely, you may feel numbness and/or weakness in your legs, because of the local anaesthetic spreading. If this happens, the feeling is temporary and will quickly get better over minutes or hours.
- ▶ Infection. This is rare. You should seek medical help if there is local warmth or redness over where you had your treatment with tenderness. Or if you feel hot and unwell. This may need antibiotic treatment.
- ▶ Serious nerve injury is very rare. Injury to nerves that supply muscles to your leg can lead to foot drop causing you to be unable to lift your foot up. Great care is taken during the procedure to avoid this complication by placing the needles carefully under ultrasound guidance and/or x-ray guidance and only treating the nerves when the doctor is confident that the needles are in the right position.
- ▶ Serious complications such as allergic reactions, significant bleeding or infection are very rare. The consequences of infection/bleeding in patients on anti-coagulants or with previous knee replacements or diabetes could be significant. Please discuss with your doctor, if any concerns.
- ▶ Radiofrequency denervation treatments do not always work and may not help your pain.



People vary in how they interpret words and numbers.
This scale is provided to help.



What can I expect in the days afterwards?

You may feel some soreness or aching at the treatment site. Please keep the area of the treatments dry for 24 hours after the procedure. Do not worry if your pain feels worse for a few days as this sometimes happens. Take your regular pain killers and medications as normal and this should get better. Try to keep on the move about the house while avoiding anything too difficult.

What should I do in the weeks after the procedure?

As your pain decreases, you should try to gently increase your exercise. It is best to increase your activities slowly. Try not to do too much as you may have more pain the next day. Your doctor can give more specific advice.

What follow-up will be arranged?

A letter will usually be sent to your GP and your doctor will advise on what to do after the procedure. You may be asked to make a call to the pain department, be given a form to fill in, or given a telephone review or other appointment.

Is there anything else I need to think about before the procedure?

- ▶ Please bring your glasses if you need them for reading.
- ▶ Bring any other devices you may need, such as hearing aids, mobility aids etc.
- ▶ Always bring a list of all current medication.
- ▶ Continue to take your medication as usual on the treatment day.
- ▶ Avoid vaccinations including COVID-19 jabs for 2 weeks on either side of the procedure.

Finally...

The information in this leaflet is not intended to replace your doctor's or health care team's advice. If you need more information or have any questions or concerns, please speak to your GP or contact your Pain Clinic.

After your procedure, if you have any questions or concerns, please contact
your GP/Minor Injuries Unit/Accident & Emergency
or
Contact the Chronic Pain Service at **01495-768699** or **01495-765701**
(09:00 to 16:00 Monday to Friday)

Adapted from Faculty of Pain Medicine (FPM) Patient Information Leaflet for Facet Joint Rhizolysis/ Radio Frequency Lesioning (Denervation) for the Treatment of Pain

**This document is available in Welsh/
Mae'r ddogfen hon ar gael yn Gymraeg**

