

Pain Management

Genicular nerve (knee) denervation procedure

What is a genicular nerve denervation?

A denervation (neurotomy) is a procedure that aims to change the way pain is transmitted from the nerves to the brain. The nerve is interrupted by heating / cauterising it with an electrical current from a special device, called a radio-frequency machine.

By selectively applying radiofrequency to the nerves (genicular nerves) surrounding the knee, one can effectively relieve pain in the knee.

Benefits

If you had temporary pain relief, with the local anaesthetic and steroid injections it is possible that after genicular nerve denervation you may experience long-lasting pain relief.

Risks

Unfortunately, no pain procedure can be risk free. There are also no guarantees that this procedure will relieve your pain.

Common short term side effects include:

- Increased pain and discomfort at the site of the injection which may last up to three weeks
- Infection, bruising and bleeding
- There is a possibility that you may have an allergic reaction to the medicines used



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- The procedure can cause some numbness in the knees. This is temporary and will usually resolve

Long term effects are uncommon and include:

- The possibility of a sustained increase in pain
- The possibility of permanent neurological problems such as persisting numbness and weakness

Before the procedure

- You will have the treatment as a day case at the Day Surgery Unit
- You should arrange for someone to drive you home after your injection
- Your stay may vary between two and four hours
- Please bring a list of your current medications with you
- You will be asked to undress and put on a theatre gown. You can keep your underwear on
- Your doctor will discuss the procedure with you and ask you to sign a consent form. As the procedure involves the use of X-rays female patients will be asked for details of their last menstrual period. If there is any possibility that you may be pregnant please inform the doctor or nurse

The procedure

- The procedure is carried out under X-ray screening. This allows the doctor to identify the specific nerves to be treated
- A self adhesive foil plate will be placed on your body; this is connected to the radiofrequency machine to make an electric circuit
- Once you are lying in the correct position the doctor will clean your knee with an antiseptic solution which may feel cold
- A local anaesthetic is injected at the site of the procedure. This may sting initially, before the skin goes numb
Four injections are given, three above and one below your knee joint
- It important that you keep still during the procedure as a special hollow needle will be carefully inserted under X-ray control into the correct position. Three needles are used for this procedure which may be quite

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uncomfortable during insertion. A very thin wire will then be threaded down the needle

- 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 tip of the needle is in the right place
- The machine settings will then be set to cauterise/ burn the nerve by heating it for about a minute. During this period, you may experience some pain at the site of the procedure
- A small dressing will be placed over the injection sites. This can be removed in the evening

After the procedure

- After the procedure you will be taken to an area to recover
- The nursing staff will observe you before going home
- Please be careful when you first get off the trolley – make sure you are steady on your feet
- Take your regular medication and pain killers as normal
- There may be an initial increase in discomfort before you start to experience pain relief. During this period, you may need to increase your pain killers or need stronger pain killers. Please see your GP if your current pain killers are not working

Please make sure that you have arranged for someone to drive you home after this procedure

The information in this leaflet is not intended to replace your doctor's advice. If you require more information or have any questions, please speak to your doctor prior to the consent for the procedure.

The Trust has access to interpreting and translation services. If you need this information in another language or format please contact the pain management secretaries on 024 7696 5880 and we will do our best to meet your needs.

The Trust operates a smoke free policy.

Patient Information

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