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Patient information

Nerve blocks for surgery on the leg, foot and associated joints

Introduction

The pain after some types of surgery on the leg and its joints may be better controlled if a nerve block is performed by your anaesthetist or surgeon.

What is a nerve block?

A nerve block is an injection of local anaesthetic, sometimes mixed with other medications around the nerves that supply the area being operated on. The local anaesthetic stops pain signals being transmitted to the brain, making the area numb and you more comfortable. Nerves that supply and control your muscles often run with the pain nerves, so your leg, or parts of it may also be immobile.

A nerve block usually provides pain relief for up to 24 hours after it is performed. However, some of the effects may last up to 48 hours.

What are nerve blocks used for?

Nerve blocks can be used alone for some procedures but may need to be combined with either a spinal or general anaesthetic. Information about general and spinal anaesthetics is provided in separate leaflets. If your procedure is possible under a nerve block without a general anaesthetic, you may also be offered sedation. Sedation makes you relaxed and sleepy during the procedure. It can be light or deep and you may remember all, some or none of the procedure if you have had sedation.

If you are having a nerve block in addition to another form of anaesthetic it may be performed first or second.

Your anaesthetist on the day will be able to discuss the options with specific risks and benefits related to you and your operation.

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Putting you first

How are nerve blocks performed?

In the anaesthetic room, a small plastic tube (drip) will be inserted into the back of your hand on the opposite side to the operation. You will then be positioned so you're your anaesthetist can access the site where your nerve block injection will be given. The exact position will depend on the block being performed and the preference of your anaesthetist (there is often more than one way to block a given nerve)

Some examples of common nerve blocks performed at the West Suffolk Hospital, the surgery they are used for and possible positions to perform them are given in the table below:

Name of nerve block	Example of a surgery where this is used	Possible position for nerve block to be performed
Fascia iliaca block	Hip surgery, either fixing a fracture of the femur (thigh bone) or hip replacement surgery	Lying flat on your back or very slightly sat up
Femoral nerve block	Surgery on the hip or knee such as joint surgery	Lying flat on your back or very slightly sat up, with your leg slightly rotated towards the outside
Adductor canal block	Knee surgery such as joint replacement	Lying on your back with your leg slightly out to the side and your leg rotated to the outside
Popliteal sciatic block	Surgery below the knee	There are many positions for this, we need to access an area behind your knee. Your anaesthetist may ask you to lie on your front, side or back. If you are on your back, it is likely your anaesthetist will prop your foot up on a support whilst the block is performed
Ankle block	Ankle surgery	Lying on your back, you can be slightly sat up for comfort.

Routine monitoring of heart rate, blood pressure and blood oxygen levels will be started. If it is suitable for you, and you are having a nerve block without already being under general anaesthetic, a small amount of sedation may be given to make you drowsy.

The nerves that convey pain messages from the leg run through different parts of the leg. The type of block that is most appropriate for you will depend on the surgery you

are having. The most appropriate option for you will be discussed by your anaesthetist either in the pre-assessment clinic or on the day of your surgery.

Local anaesthetic is injected on the side of your body that you are going to have surgery. This will be confirmed with you before the injection is performed.

To help locate the correct position to inject the local anaesthetic in relation to the nerve, the anaesthetist uses an ultrasound scanning probe and/or a nerve stimulator.

After cleaning the skin, local anaesthetic is injected into the skin to numb the area. A special block needle is used that can be seen clearly with an ultrasound probe and can be connected to a small box (nerve stimulator) giving out an electric current. The needle is inserted through the numbed skin. The needle is then manoeuvred into the correct position. If a nerve stimulator is being used your anaesthetist will inform you and they will be expecting your leg to twitch. This twitching is not painful. Finally, the local anaesthetic is injected. If your leg was twitching, this may cause it to stop. If you feel any pain at this point please say so.

Your leg starts to feel warm and tingly quite soon after the injection. If your operation is being performed without a general anaesthetic, the extent of numbness will be checked before the start of the operation. This may not happen if you are also having a general anaesthetic.

Depending on the operation you can then stay awake, have light sedation or a general anaesthetic to supplement the nerve block.

You can choose to bring a personal device with headphones if you are not having a general anaesthetic and want to listen to music or podcasts during the operation.

What are the benefits?

In the majority of cases, the nerve block works really well and patients who have a nerve block usually have less pain after an operation than those who do not. This means that you need fewer painkillers in the period after your operation. As a result, you are less likely to experience the uncomfortable side effects associated with some painkillers, particularly those based on morphine. This includes reduced nausea and sickness.

A nerve block may allow you to avoid a general anaesthetic, which means avoiding the risks that are associated with them.

As patients are often more comfortable if they have had a nerve block, you may be able to get up sooner and therefore spend less time in hospital.

What are the complications and side effects?

Whilst most nerve blocks work very well, this is not always the case. If the block does not work properly, then we will offer you a general anaesthetic and give you other pain killers.

Following some nerve blocks for surgery in your leg, the strength in your leg may be temporarily reduced. This may mean it takes longer for you to get up after your surgery and you may require a longer stay in hospital.

There is a minor risk of bleeding due to damage to a blood vessel. This can be managed safely by applying direct compression to the site.

Nerve damage due to direct injection into a nerve or because of bleeding or infection is extremely rare. The best available studies suggest this risk to be between 1 in 15,000 and 1 in 30,000.

Temporary nerve damage occurs in 1 in 20 patients causing patchy areas of tingling or numbness. This usually resolves within 3 weeks but can occasionally last longer. Nerve damage can also happen due to the operation itself, pressure on nerves from swelling, or positioning during the operation, or from pre-existing medical conditions like diabetes.

For more information about risks of regional anaesthesia, follow this link: https://www.rcoa.ac.uk/patients/patient-information-resources/anaesthesia-risk/nerve-damage-after-peripheral-nerve-block

Discharge advice

Areas of your leg will be numb for about 12 to 24 hours and in some cases even longer. You should rest as much as you can with the leg raised up to avoid swelling.

You should pay special attention not to damage the leg while it is numb. Be careful with hot drinks and food. If you spill anything hot on your numb leg, you may get a burn without realising it.

When the local anaesthetic starts to wear off, you may start feeling some pain from the operation site. Take the painkillers as prescribed so that you have good pain relief as the block wears off.

If you have any questions, please ask your anaesthetist, your surgeon or your nurses on the ward.

When to ask for help

Whilst nerve blocks performed with modern techniques are generally very safe, as described above, there are complications. There are symptoms that give an indication of possible complications and should be treated seriously.

You should seek emergency medical assistance if you have had a nerve block and experience new severe pain that is not controlled with painkillers.

If the block has not fully worn off two days after the operation, then contact the anaesthetic department as described below.

Further information

Information about nerve blocks in general is available from the Royal College of Anaesthetists (RCoA) at the following address: https://www.rcoa.ac.uk/patients/patient-information-resources/leaflets-video-resources/peripheral-nerve-blocks.

RA-UK, the UK specialist society for regional anaesthesia has produced an information video for patients that you may find useful. It is available at: https://ra-uk.org/index.php/component/allvideoshare/video/nerve-blocks-an-information-video-for-patients.html?Itemid=533

If you have questions or concerns, you can speak to an anaesthetist at your pre-assessment unit appointment or on the day of surgery.

If you would like to speak to an anaesthetist again after your pre-assessment discussion before the day of surgery, you can contact the anaesthesia department through the main hospital switchboard on 01284 713000. The phone will be answered by one of the departmental secretaries, who should be able to arrange for an anaesthetist to call you back.

West Suffolk NHS Foundation Trust is actively involved in clinical research. Your doctor, clinical team or the research and development department may contact you regarding specific clinical research studies that you might be interested in participating in. If you do not wish to be contacted for these purposes, please email info.gov@wsh.nsh.uk. This will in no way affect the care or treatment you receive.

If you would like any information regarding access to the West Suffolk Hospital and its facilities please visit the website for AccessAble (the new name for DisabledGo) https://www.accessable.co.uk/organisations/west-suffolk-nhs-foundation-trust

AccessAble
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References

1. Royal College of Anaesthetists (RCoA) patient information leaflet “Peripheral nerve blocks”. Available at: https://www.rcoa.ac.uk/patients/patient-information-resources/leaflets-video-resources/peripheral-nerve-blocks