



Oxford University Hospitals
NHS Foundation Trust

Peripheral Nerve Block

Information for patients



This leaflet is designed to give you information about peripheral nerve blocks.

What is a peripheral nerve block?

A peripheral nerve block is an injection of local anaesthetic around the nerves which “blocks” information (including pain signals) travelling along these nerves. This helps to reduce pain and often makes the area go numb, heavy and immobile for a certain period of time. You may still feel movement, pushing or pulling when the area is moved.

A nerve block can provide pain relief, usually for up to 24 hours, although some areas may have altered sensation for up to 48 hours. Depending on several factors including the type of surgery and your general health, peripheral nerve blocks may be done:

1. when you are awake
2. when you are under sedation, which means you have been given something to make you drowsy and relaxed, but are still aware of your surroundings
3. when you are already under general anaesthesia (unconscious).

Your anaesthetist will explain the risks, benefits and alternatives where relevant before asking for your consent to perform a nerve block. Whilst in most cases you can safely have surgery without a nerve block, many operations are accompanied by one routinely because the benefits outweigh the risks for most patients. Please note that not all anaesthetists will be able to perform these specialist nerve blocks.

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?

- Better pain relief afterwards.
- Less need for strong painkillers. These can make you feel sick and may cause constipation.
- Being able to get up and move around earlier and leaving hospital sooner.
- In certain cases, it may be possible for us to do your whole operation with the nerve block alone. This is of particular interest to people who might prefer not to have a general anaesthetic or have been advised that their surgery should be performed under a block due to underlying health conditions.
- In these cases, avoiding a general anaesthetic, including its risks and side effects. The common side effects of a general anaesthetic include sickness, sore throat and drowsiness.

How is a peripheral nerve block carried out?

You will usually be taken to a room near the operating theatre to have the nerve block. You will first have a thin plastic tube called a cannula put into a vein in your hand or arm. You may be offered sedation before the injection to help you relax and feel less anxious. If you are having a general anaesthetic as well, this may be given before or after the injection.

The skin over the injection site will be cleaned and a small injection of local anaesthetic will be used to numb a small area of your skin – it does sting a little as it goes into the tissues. The anaesthetist will use an ultrasound machine and/or a small machine that makes the area twitch to locate the nerves.

Most people find that this process is no more uncomfortable than having a cannula inserted into a vein.

Sometimes, your anaesthetist may place a very thin tube called a catheter through the needle before it is taken out. This can be secured on the outside of your skin and left in place for a few hours or days after your operation. We can use this catheter to continue to give you local anaesthetic drugs using a special pump, to help you have good pain relief.

After the injection, the area blocked will start to feel warm and tingly before finally feeling heavy and numb. This usually takes 20-40 minutes to occur. The anaesthetist will check the sensations you can feel. You will not be taken to theatre until the anaesthetist is happy that the block is working well.

If the block does not work fully, you will be offered more local anaesthetic, additional pain relief or a general anaesthetic.

During the operation

If you are conscious, a screen will be positioned in a way that you cannot see the surgery being done, unless you want to. You may be able to listen to your own music on your device with headphones during the surgery – ask if this is possible. An operating theatre is a busy place – there will typically be between five and eight people in theatre, each with their own role in helping look after you. A member of the anaesthetic team will be with you throughout the surgery and sometimes other members of the team may also speak with you and help with your care.

If you are having sedation, you will be relaxed and drowsy. You may be given oxygen through a light plastic facemask. You may have memories of being in the operating theatre, although these may be patchy.

If you have a general anaesthetic, you will not remember anything about the operation.

After the operation

During the time the block is working the area may feel very heavy. You may need someone to help you carry out everyday tasks.

As the block wears off, you may experience pins and needles sensations. This is completely normal.

Aftercare at home

The area of your body that is numb may be more at risk of injury and you will need to be aware of the need to protect it (for example, with a sling for your arm or crutches for your leg).

- Take special care around heat sources such as fires and radiators. You will not feel heat while the area is numb and may burn yourself.
- Do not use any machinery or domestic appliances whilst the area is numb, as you are more likely to injure yourself.
- Start taking your pain relief medicines before the block wears off, as instructed by the hospital. This is important as the pain can start quite suddenly.

Further help

You will need to seek help from the emergency medical services if you experience severe pain that is not controlled by your tablets. If your block has not fully worn off two days after the operation, then you should return to the hospital emergency department who may contact the team responsible for your original operation

Side effects, complications, and risks

In modern anaesthesia, serious problems are uncommon, but risk cannot be removed completely. Modern drugs, equipment and training have made anaesthesia a much safer procedure in recent years.

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



Anaesthetists take a lot of care to avoid all the risks given in this section. Your anaesthetist will be able to give you more information about any of these risks and the precautions taken to avoid them.

General risks and complications

It is common to puncture a blood vessel. Your anaesthetist will put pressure over the area to stop any bleeding.

Nerve damage:

- The risk of long-term nerve damage caused by a nerve block leading to altered sensation or power is difficult to measure precisely. Studies show that it happens between 1 in 700 and 1 in 5000 blocks – meaning it is uncommon or rare.
- Very commonly about 1 in 10 patients notice a patch of prolonged numbness or tingling in the numbed area. These symptoms will resolve within six weeks in 95 per cent of these patients and within a year in 99 per cent of patients.

- There is a risk of nerve damage after any operation regardless of the type of anaesthetic technique used. This can be due to the operation, the position you lie in or the use of a tourniquet (a tight band on the arm or leg which prevents bleeding during the operation). Swelling around the operation site or a pre-existing medical condition, such as diabetes, may also contribute to nerve damage.

Infections are very rare and may be slightly more likely if you have a nerve block catheter in place after the operation.

There is a rare risk of having a fit or another life-threatening event. Your anaesthetist will manage these promptly. They can tell you more about these very rare events.

Nerve blocks in the abdominal wall

These injections are done in your abdominal wall and are usually given when you are already under general anaesthesia. They are very safe and provide good pain relief. There are only a few reports of injuries to underlying organs when the block is being given.

The local anaesthetic for the block may spread to the nerves supplying your leg on that side. This will make it temporarily slightly numb and weak. This will go back to normal as the local anaesthetic wears off.

Further information

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

Authors: Dr Nicolas Suarez, Consultant anaesthetist, Dr Amisha Burumdayal, Consultant Anaesthetist, Dr Frances Bernau, Consultant in Anaesthesia and Inpatient Pain Management

August 2023

Review: August 2026

Oxford University Hospitals NHS Foundation Trust
www.ouh.nhs.uk/information



Royal College of Anaesthetists 2020 Nerve Block leaflet

Making a difference across our hospitals

charity@ouh.nhs.uk | 01865 743 444 | hospitalcharity.co.uk

OXFORD HOSPITALS CHARITY (REGISTERED CHARITY NUMBER 1175809)

