

Nerve Block as part of your Anaesthetic for Surgery

Information for patients

What is a nerve block?

There are a number of methods that can be used for pain relief after surgery. A nerve block is one way of giving pain relief, and this may be offered to you by your anaesthetist on the day of surgery. A nerve block is an injection of local anaesthetic placed near to a nerve or group of nerves to numb an area of your body. It will usually be performed along with a general or spinal anaesthetic.

How is it performed?

It is often done before the general or spinal anaesthetic, and sedation is often given so you feel more relaxed. A small amount of local anaesthetic will be injected to numb the skin and the nerves to be blocked are found by using either an ultrasound machine or small machine called a nerve stimulator, which makes your muscles twitch. Sometimes it may be performed after your general anaesthetic whilst you are “asleep”.

Depending on the operation you are having, the nerve block will be done at the side of the neck, around the collar bone, or near the armpit (for the arm); or in your groin, front of the thigh, behind your knee or at your ankle (for the leg). You will then be given either a general anaesthetic, or spinal anaesthetic with or without sedation (whichever is most appropriate), or sometimes you will be given just sedation during the operation.

What are the benefits?

- Better pain relief after surgery than using painkillers alone
- Reduces the amount of strong painkillers required immediately after surgery. This will avoid the side effects of strong painkillers such as drowsiness, nausea, vomiting, and confusion. This should make you feel much better and more clear-headed after surgery
- Reduced stress on the body from improved pain relief
- You should be able to eat and drink after surgery sooner
- You will be ready to go home sooner as your pain will be better controlled
- It might allow you to avoid a general anaesthetic, and so reduce the risks of associated with a general anaesthetic

What are the risks?

Your anaesthetist will be experienced in performing nerve blocks, and the vast majority of patients will have no problems. However, all medical procedures carry some risks. Any questions can be raised with your anaesthetist on the day of your operation.

- **Incomplete or ineffective nerve block**

This is **fairly common** (around 1 in 20 depending on the block or type of surgery). Your anaesthetist is trained to recognise this and will give you other forms of pain relief during the operation. When you are awake after surgery, further pain relief can be given if needed.

- **Bruising or bleeding**

Mild bruising around the site of the nerve block is **common** and will resolve. Bleeding from larger blood vessels is **uncommon** and can be dealt with at the time the anaesthetist is doing the nerve block.

- **Infection**

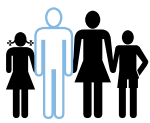
Precautions against infection are taken and this is an **uncommon** complication.

- **Other possible side effects**

A hoarse voice, droopy eyelid and some difficulty breathing may happen after an injection at the side of your neck, and these will resolve when the block wears off.

- **Nerve damage**

A nerve block usually wears off within 24 hours. It is **fairly common** (around 1 in 20) to have a slightly prolonged area of numbness and/or tingling lasting beyond 48 hours. Almost all of these symptoms will resolve over the following days, weeks or months but **rarely** this can be permanent. It is difficult to accurately measure the risk of long-term nerve damage due to it happening so rarely. Studies have estimated this risk to be between 1 in 5,000 and 1 in 10,000 patients. Therefore, the **risk of nerve damage is rare**. There is a risk of nerve damage after any operation, even if you do not have a nerve block. This can be caused by the operation itself, the position you are lying in under anaesthetic, or the tourniquet on your arm or leg used during surgery. Swelling after surgery and medical conditions, such as diabetes, can also contribute to nerve damage after surgery.



| Very common | Common | Uncommon | Rare | Very rare |
|-----------------------------------|---------------------------------|------------------------------------|--|---|
| 1 in 10 Someone in your family | 1 in 100 Someone in a street | 1 in 1,000 Someone in a village | 1 in 10,000 Someone in a small town | 1 in 100,000 Someone in a large town |

What are the alternatives?

Most people can have surgery without a nerve block, but will need strong, morphine type painkillers at higher doses. These can have side effects such as drowsiness, nausea, vomiting, constipation, and confusion. Pain is likely to be worse without a nerve block.

Shared decision-making

You have been offered a nerve block because it is felt that it will be of benefit to you. Shared decision-making should ensure that you are supported to make the right decision for you. This leaflet helps to inform you about the facts of nerve blocks, and should be used, along with conversations with your anaesthetist, surgeon, and your own previous knowledge and preferences, to make the decision that is right for you.

After the Operation:

What are the effects of the nerve block?

The effects will vary depending on where you have had the local anaesthetic injection.

- **Shoulder, arm, or hand surgery**

An injection to numb your shoulder or arm will cause parts or all of the arm to feel heavy, floppy, and numb. It may feel warm or cold and it can be difficult to sense what position the arm is in. You will be given a sling to support and protect your arm.

- **Leg, ankle, or foot surgery**

An injection to numb part of your leg or foot will have a similar effect as above: a heavy, floppy, and numb part of your leg or foot that is difficult to sense what position it is in. Depending on the block used, you may be given a splint to support your leg.

How long will the nerve block last for?

This varies from a **few hours up to 24 hours**, but on average the block will wear off around 10 to 12 hours after the injection. The effect will wear off gradually and feel tingly before the sensation and power return to normal.

Looking after your arm or leg with a nerve block when you go home

You will only be allowed home once the hospital staff are happy that it is safe for you to go, and you have the required amount of support around you. You will not be able to use your arm or leg normally until the block has worn off.

You will be given oral painkillers on discharge from hospital. We recommend starting these **BEFORE** the nerve block wears off, whilst your arm is still numb, especially before going to bed, so they will be working when the nerve block wears off. Take the painkillers regularly for the next 48 hours and then judge for yourself whether you need to continue taking them.

What precautions should I take at home?

- If you have been given a sling or splint to support the arm or leg, keep it in place until normal sensation has returned and your arm/leg no longer feels weaker than normal.
- Take care moving around to avoid injuring the arm or leg: avoid awkward positions or over extending joints, and constant pressure onto numb areas should be avoided.
- Be very careful around heat sources (e.g. fires, radiators, hot water) as you will not feel the heat in the numb arm or leg. This can lead to burns.
- Do not use any domestic appliances or machinery until the nerve block has completely worn off.
- Remember to start taking pain medicines **BEFORE** the block wears off.

What if I have concerns once I have left hospital?

If you are still experiencing numb or weak areas of the arm or leg after **72 hours**, or have any other concerns related to the nerve block, please contact the Day Surgery Unit at the Royal Infirmary of Edinburgh on Tel: **0131 242 3291 / 3273** or via hospital switchboard: **0131 536 1000** who will put you in touch with an anaesthetist for further assessment and advice if required.

Further Information

You will be able to discuss this further with your anaesthetist on the day of your surgery.

Further information, including more leaflet and video resources from the Royal College of Anaesthetists, can be found at <https://www.rcoa.ac.uk/patientinfo>, with leaflets specific to nerve blocks and risks:

Royal College of Anaesthetists (RCOA) – Patient Information Resources

<https://www.rcoa.ac.uk/patients/patient-information-resources>



Peripheral nerve blocks, Patient Information (RCOA)

<https://www.rcoa.ac.uk/patients/patient-information-resources/leaflets-video-resources/peripheral-nerve-blocks>



Nerve damage associated with peripheral nerve block (RCOA)

<https://www.rcoa.ac.uk/sites/default/files/documents/2022-06/13-NerveDamagePeripheralNB2019web.pdf>



Interpretation and Translation

Your GP will inform us of any interpreting requirements you have before you come to hospital and, if necessary, we will provide an appropriate interpreter. If you are having this procedure as an existing inpatient, staff will arrange interpreting support for you in advance of this procedure. This leaflet may be made available in a larger print, Braille or your community language.

It's OK to Ask

When you understand what's going on with your health, you can make better decisions around your care and treatment.

