

Anaesthetics – risks and side effects

Nerve damage after a peripheral nerve block

About this leaflet

This leaflet is about **nerve damage** which can happen after a **peripheral nerve block**. It explains the causes and what can be done about it.

About peripheral nerve blocks

The nervous system is used to carry signals from the brain and spinal cord to all parts of the body. Some nerves, known as **peripheral nerves**, are responsible for sensations and movement and extend all the way to the toes and fingers.

Nerve blocks are anaesthetic injections given around a nerve or a group of nerves to numb a part of the body for certain operations. For example, they are often used for operations on an arm, a hand or a leg or foot. You are normally awake during a peripheral nerve block.

Sometimes a nerve block is used to provide pain relief to help recovery from a bigger operation. In this case, the nerve block may be given during a general anaesthetic.

More information on peripheral nerve blocks can be found here:
rcoa.ac.uk/patientinfo/peripheral-nerve-blocks.

What does it feel like if I develop nerve damage after a nerve block?

You might feel the following sensations in the area where you had surgery:

- numbness and tingling
- muscle weakness
- aching or sharp, shooting pains
- warm or cold sensations.

You might feel more than one of these at the same time.

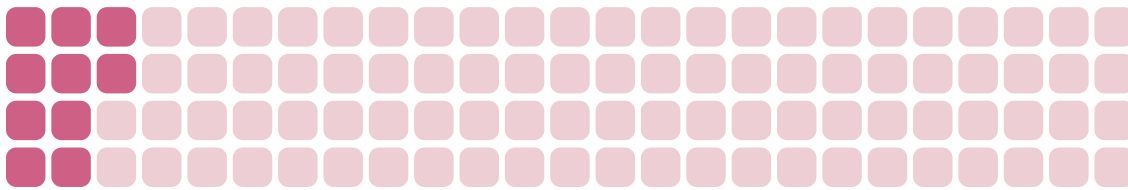
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How long does it last?

- Most nerve injuries are temporary and will fully recover over a period of about three months.
- Minor nerve injuries usually recover within a few days or weeks.
- More serious nerve injuries can be permanent, but this is rare.

How likely is it to happen?

Out of every 100 people



Fewer than 10 had temporary nerve damage

more than 90 did not

Most people who had temporary nerve damage recovered in four to six weeks, but 1 in 100 had temporary nerve damage a year after the nerve block.

Out of every 10,000 people

2–5 had permanent nerve damage

9,995–9,998 did not

These numbers come from research studies. You can see where we got our numbers on our website: rcoa.ac.uk/patientinfo/risks/evidence.

What can I do if I think I have nerve damage?

If you have nerve damage symptoms that last longer than 48 hours, you should contact the hospital where you had the operation.

The anaesthetist or surgeon (or both) will try to understand where and how the damage has occurred. They might ask you to do some tests and refer you to a neurologist (a doctor who specialises in nerve diseases).

They will discuss a treatment plan with you once they understand what type of nerve damage you have. Treatment may include physiotherapy, exercise, pain relief or sometimes an operation to repair the damaged nerves.

How does nerve damage happen during a peripheral nerve block?

Damage from the needle to the nerve

The needle can touch a nerve and you might feel 'pins and needles' or brief pain during the operation. If this happens, you should tell your anaesthetist. It does not mean that the nerve has been damaged, but damage can happen if they do not move the needle.

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Damage to the blood vessels around the nerve

The needle can damage a blood vessel near a nerve during the operation.

If a damaged blood vessel bleeds a lot, blood can collect around the area and cause pressure on the nerve. This is known as a haematoma.

Every nerve is supplied by blood vessels that keep it healthy. If the blood supply to a nerve is damaged by the needle, the nerve suffers a lack of oxygen, which can cause damage.

To prevent this from happening, often anaesthetists use an ultrasound machine to help them guide the needle in the correct place.

Very rarely, the drugs used during a peripheral nerve block can irritate the nerve or an infection may develop around the nerve after the operation.

Other causes of nerve damage after a peripheral nerve block

Not all nerve damage is caused by the anaesthetic injection or the peripheral nerve block. To find out more about other types of nerve damage after a general anaesthetic and surgery please visit this page ([link to main risk series](#)).

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This leaflet has been produced by Leila Finikarides for the RCoA, in collaboration with patients, anaesthetists and patient representatives of the RCoA.

Disclaimer

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We welcome suggestions to improve this leaflet.

Please complete this short survey at: surveymonkey.co.uk/r/testrisk. Or scan the QR code below.



If you have any general comments, please email: patientinformation@rcoa.ac.uk.

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This leaflet will be reviewed within three years of the date of publication.

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