

# Nerve blocks for surgery on the shoulder, arm or hand

Information for patients and families

Adapted for use by:



**The Newcastle upon Tyne Hospitals**  
NHS Foundation Trust

May 2018

[www.rcoa.ac.uk/patientinfo](http://www.rcoa.ac.uk/patientinfo)  
[www.nusgra.co.uk](http://www.nusgra.co.uk)



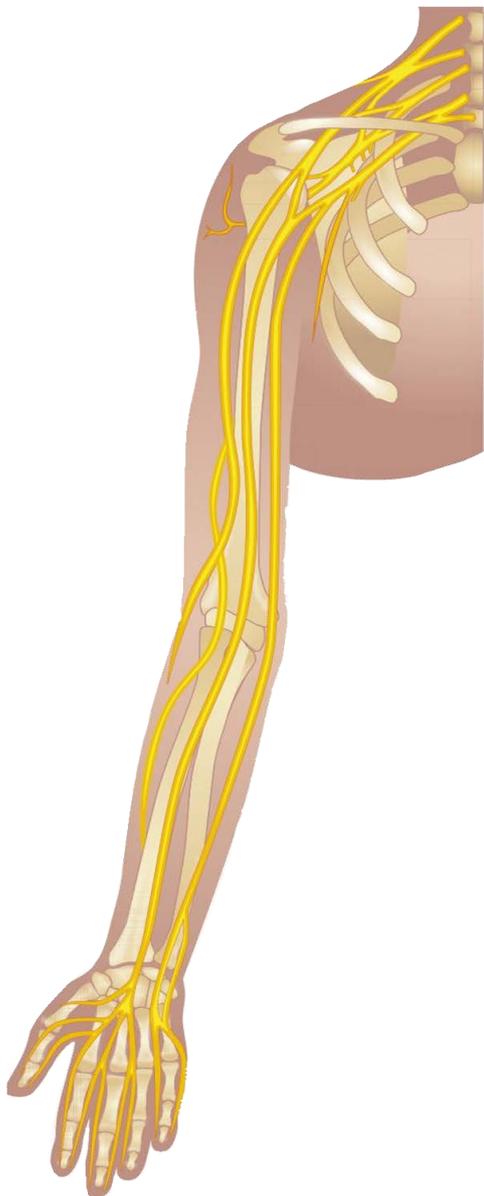


This leaflet is for anyone who is thinking about having a nerve block for an operation on the shoulder, arm or hand. It will be of particular interest to people who would prefer not to have a general anaesthetic.

The leaflet has been written with the help of patients who have had a nerve block for their operation.



Throughout this leaflet we have used this symbol to highlight key facts



### Brachial plexus block?

The brachial plexus is the group of nerves that lies between your neck and your armpit. It contains all the nerves that supply movement and feeling to your arm – from your shoulder to your fingertips.

A brachial plexus block is an injection of local anaesthetic around the brachial plexus. It 'blocks' information travelling along these nerves. It is a type of nerve block. Your arm becomes numb and immobile.

You can then have your operation without feeling anything. The block can also provide excellent pain relief for between three and 24 hours, depending on what kind of local anaesthetic is used.

A brachial plexus block rarely affects the rest of the body so it is particularly advantageous for patients who have medical conditions which put them at a higher risk for a general anaesthetic.

A brachial plexus block may be combined with a general anaesthetic or with sedation. This means you have the advantage of the pain relief provided by a brachial plexus block, but you are also unconscious or sedated during the operation.



Your anaesthetist can explain what is possible and what might be best for you.



### Other nerve blocks

If your operation is on the hand or forearm, it may be possible to do a nerve block on nerves further down the arm, closer to the hand. Your anaesthetist can tell you more.

### **i** Having the injection

You need to prepare for the operation by not eating for 6 hours before the procedure. Water, clear juice and non-fizzy drinks may be consumed up to 2 hours before the procedure.

You will go to a room near the operating theatre to have the local anaesthetic injection.

The injection for a brachial plexus block is in the side of your neck, or in your armpit, or close to your collar bone. Other nerves can be blocked near the elbow, or in the forearm, wrist or hand.

Sedation may be given before the injection is done. This is when drugs are given which help you relax. If you are having a general anaesthetic as well, this may be given before or after the injection.

The skin around the injection site is cleaned. A small injection of local anaesthetic numbs the skin, unless numbing cream has already been applied by the ward staff. The nerves are located using an ultrasound machine, and sometimes also by using a small machine that makes your arm twitch.



**Photo of a patient undergoing a nerve block in the hand surgery "block room".**

**An ultrasound machine is being used to locate nerves and inject local anaesthetic around them.**



## Nerve blocks for surgery on the shoulder, arm or hand



Most people find that the injection is no more painful than having a cannula inserted into a vein.

Please see the leaflet below for more information about a cannula:

[www.rcoa.ac.uk/document-store/you-and-your-anaesthetic](http://www.rcoa.ac.uk/document-store/you-and-your-anaesthetic)

Your arm will start to feel warm, heavy and numb. The injection takes between 20 and 40 minutes to work.

Your operation will not start until we are certain your arm is anaesthetised. In rare instances, the block does not work completely as expected. This may be due to the operation being more extensive than expected or due to technical difficulty with the injection. If this happens, surgery will stop and you will be offered more local anaesthetic, additional pain relief, or a general anaesthetic.

### During the operation

A screen is used, so you cannot see the operation being done, unless you want to. It is normal to feel the surgeon touching you during the operation, but you should not feel anything sharp or painful.

A member of staff will sit with you during the operation. Your anaesthetist remains close by. Please feel free to bring in a mobile phone / personal music player with headphones if you would like to listen to music during the operation.

An operating theatre is a busy place – there will usually be between five and eight people in theatre, each with their own role in helping look after you.

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

If you have a general anaesthetic you will not remember anything about being in the operating theatre.

### Benefits of a brachial plexus block

1. Better pain relief afterwards. There may be less need for strong pain relief medicines which make some people feel quite sick and unwell.
2. Avoiding a general anaesthetic, including its risks and side effects. The common side effects of a general anaesthetic include sickness, sore throat and drowsiness afterwards.
3. Able to eat and drink immediately after surgery, and often able to leave hospital sooner than after a general anaesthetic.

### Side effects, complications and risks

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

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. You can also find out more information from the patient information pages on the College website:

[www.rcoa.ac.uk/patientinfo](http://www.rcoa.ac.uk/patientinfo)



## Nerve blocks for surgery on the shoulder, arm or hand

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

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

- **Injection in the side of the neck:** hoarse voice, droopy eyelid, some difficulty breathing. These resolve as the block wears off.
- **Injection around the collar bone:** less than 1 in 1,000 risk of damage to the covering of the lung. Your anaesthetist will discuss this with you.
- **All injection sites:** damage to a blood vessel which will usually resolve with simple compression to stop any bleeding.
- **Very rarely:** having a fit or another life threatening event may occur. Your anaesthetist will manage these promptly. They can tell you more about very rare events

### Nerve damage

- The risk of long-term nerve damage caused by a brachial plexus block is difficult to measure precisely. Studies show that it happens in between 1 in 700 and 1 in 5,000 blocks.
- If you have a block lower down the arm, the risk of nerve damage and its consequences may be less.
- About 1 in 10 patients notice a prolonged patch of numbness or tingling in their arm. These symptoms will resolve in 95% of these patients within four to six weeks, and in 99% within a year.
- There is a risk of nerve damage after any operation regardless of whether you have had a block. This can be due to the operation, the position you lie in or the use of a tourniquet (tight band on the upper arm 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.

For more information on nerve damage, please see the leaflet below:

[www.rcoa.ac.uk/document-store/nerve-damage-associated-peripheral-nerve-block](http://www.rcoa.ac.uk/document-store/nerve-damage-associated-peripheral-nerve-block)



### After the operation

During the time the block is working you will not be able to use your arm. You will be given a sling to use until you have regained full control of your arm, so you may need someone to help look after you during this time.

You should start taking pain relief medicines while your arm is still numb and before the block wears off. This is so that they start working ready for when the block wears off. When this happens you may experience pins and needles in your fingers – this is normal.

### Aftercare

You should keep your arm in the sling you are given, for support and protection. You will not be fully aware of the position of your arm – so it can be injured without you realising.

- Be especially careful around heat sources, such as fires or radiators. You will not feel heat while your arm is numb and burns can happen.
- Avoid use of any machinery or domestic appliances. Injury is possible while you cannot feel your arm.
- Start taking your pain relief medicines before the block wears off (which is usually preceded by pins and needles in the arm), or when you go to bed to avoid waking up with pain. This is important as the pain can appear quite suddenly.

### Further help

You will need to seek help from the emergency medical services if you notice unexplained breathlessness, or severe pain that is not controlled by your tablets.

Most blocks last up to 18 hours. If the block has not fully worn off by 48–72 hours after the operation you should contact Ward 39 on 0191 2826039 (8am-8pm), or Ward 47 on 0191 2825647 at other times, and we will arrange for you to be seen at the hospital.

### Feedback

We would appreciate feedback on your experience of the RVI hand surgery unit. Please visit [www.nusgra.co.uk](http://www.nusgra.co.uk) where you can also find detailed information about the hand surgery unit, and access other electronic patient resources.

### Questions you may like to ask your Anaesthetist

- 1 Who will be doing the injection?
- 2 Who will stay with me during the operation?
- 3 What happens if the block does not work and I can feel something? How often does this happen?
- 4 Do I have any particular risks for having this kind of anaesthetic?
- 5 Do I have increased risk for a general anaesthetic, which I might have instead of a brachial plexus block?



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**RCoA**  
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NHS Foundation Trust

## Tell us what you think

We welcome suggestions to improve this leaflet.

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