

# **Regional anaesthesia (nerve blocks) shoulder and arm**

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[www.ulh.nhs.uk](http://www.ulh.nhs.uk)

In modern anaesthesia, nerve block is a common approach to allow operations in awake or slightly relaxed patients, with efficient pain relief during and after the operation. This is reliably performed using a scanner (ultrasound machine) which helps to locate the nerves. The purpose of this leaflet is to provide background information for upper limb nerve blocks for shoulder, arm and hand operations. On the day of the procedure, you will meet your anaesthetist who will talk through the suitable options and answer any questions you may have.

In preparation for the day, it is very important to follow the instructions given in the pre-operative assessment clinic.

## **What is a brachial plexus nerve block and how is it done?**

'Brachial plexus' refers to the group of nerves providing muscle strength and skin sensation to your shoulder, arm and hand. These nerves lie close together in your neck and armpit. Local anaesthetic around these nerves temporarily blocks their function allowing an operation.

The block is performed using ultrasound at all times to minimise the risk of complications (see below) and improve quality. A small needle will be used to put local anaesthetic into the skin, then the medications are injected around the nerves, above your collarbone or in the armpit. Sometimes, your anaesthetist may decide to give more local anaesthetic further down your arm.

You will very soon feel your arm go heavy and warm. After ensuring the block is adequate, the surgery can start. The block can provide pain relief for up to 24 to 36 hours, depending on the kind of local anaesthetic being used.



A brachial plexus block may be combined with a general anaesthetic or with sedation (medication used to help you relax). 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.

Before the nerve block is performed, the theatre team will go through the standard safety checks. Then you will be connected to the appropriate monitors and have a cannula (drip) inserted, commonly at the back of your hand.

## **Who is suitable for nerve blocks?**

Nerve blocks are a safe approach in the vast majority of patients. However if, for example, you are on certain blood thinning medications or have certain medical conditions or allergy to local anaesthetics, this might not be the best option for you. Your anaesthetist will inform you of alternative options instead.

## What are the benefits of a block?

- Avoid a general anaesthetic and its associated risks.
- If you do have a combination of a general anaesthetic and a nerve block, you will need much less medication and will be more comfortable afterwards.
- Minimise the need for strong painkillers and their side effects.
- Eating, drinking and discharge home sooner after the procedure.
- Being in control: can be fully awake and chat to one of the members of the team or have medications to feel relaxed or have a snooze.

## What are the risks associated with the procedure?

Since the widespread use of ultrasound, nerve blocks are relatively safer, used more frequently and associated with minimal risks:

- Infection or bleeding at the site of injection.
- Nerve damage: It is very common (1:10) to have some tingling or an area of numb skin temporarily and vast majority (95%) are expected to resolve fully in 4 to 6 weeks. Long term, permanent damage because of nerve blocks is difficult to measure precisely but is rare (1:700 to 1:5,000 blocks). Please note that nerve damage can happen whether you have a block or not because of the position you lie in, the tourniquet (tight band that prevents the blood supply to your arm), the operation itself and swelling around the area and the risk is higher with certain medical conditions (for example diabetes).
- Hoarse voice, some difficulty in breathing and drooping of the upper eyelid: can happen because of spread of the local anaesthetic to other surrounding nerves and will wear off as the block wears off.
- Puncture to covering of the lung (1:1000).
- Inadequate block: sometimes despite everything being done properly the block may not work as expected. The options would then, involve more local anaesthetic by the surgical team, strong painkillers through your drip or conversion to a general anaesthetic.

## What happens after the procedure?

Depending on the operation and your general health condition, you may either go home the same day or stay in hospital. After the procedure is finished, you will have a numb, heavy arm for several hours; it is difficult to know exactly how long the effect will last.

### After care:

- You should take painkillers regularly before the numbness starts wearing off to keep on top of any pain.
- Keep your arm in a sling and take care not to injure it accidentally with pressure or heat.
- Avoid use of any machinery or domestic appliances.
- If the block has not fully worn off by 48 to 72 hours after the operation you should seek advice from the on-call anaesthetic doctor by calling the hospital switch board.

## Further information and useful numbers

Royal College of Anaesthetists, Information for patients: <https://www.rcoa.ac.uk/node/19757>  
Lincoln County Hospital switch board: 01522 512 512 and ask to speak to the anaesthetist on-call.

## My own notes and questions for the anaesthetist on the day:

## References

If you require a full list of references for this leaflet please email [patient.information@ulh.nhs.uk](mailto:patient.information@ulh.nhs.uk)

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