

Regional Anaesthesia

(nerve block) for shoulder, arm and hand surgery

Introduction

Pain is a normal experience after surgery and there are many ways to control pain. To provide the best pain relief and reduce the associated side effects (nausea, drowsiness). Your anaesthetist will use a variety of pain-relieving medicines and specialised techniques (nerve blocks) that when combined can best control any postoperative pain/discomfort.

What is regional anaesthesia (nerve block)

Regional anaesthesia is an injection of local anaesthetic using an ultrasound machine around the nerve in your neck, arm or hand depending on what surgery you are having. This makes the respective part numb and pain free for few hours.

How is nerve block performed?

Your anaesthetist will discuss the procedure beforehand and will explain the procedure. A small cannula will be inserted into your vein and monitors will be attached. If you are feeling anxious you may have some sedation to make you feel more relaxed and comfortable.

The skin around the injection site is cleaned and a small injection of local anaesthetic numbs the skin. Your anaesthetist will identify the nerves using an ultrasound machine or by a machine that makes your arm /hand twitch. The ultrasound machine allows seeing real time position of needle and site of injection.

During the injection of local anaesthetic you may feel a tingling sensation or pressure at the site of injection. This is normal and it's important you stay still as possible whilst the nerve block is being given.

Initially you will feel pins and needles then arm becoming warm, heavy and numb. The injection takes 20-40minutes to work and the doctor will use a cold spray to confirm it.

After the nerve block

Your nerve block may be done alone or in addition to general anaesthetic.

If you are not having a general anaesthetic you will be taken to theatre on a trolley. A member of staff will sit with you during the operation. Please feel free to bring your personal music player with headphones if you would like to listen to music during the operation. You may be given oxygen through a light plastic face mask. If you are having a general anaesthetic you will not remember anything and when you wake up the block will give you extra pain relief.

Benefits of having a nerve block

- Excellent pain relief after surgery which can last between 4 - 24hrs
- Less need for strong pain killers so you feel less drowsy and sick.
- Earlier return to eating and drinking.
- Often able to leave hospital earlier.

A nerve block catheter may be left in place to allow top ups or a continuous infusion of local anaesthetic which will result in an extended period of pain relief.

Side effects and complications

With the use modern drugs, equipment and training have made regional anaesthesia a much safer procedure in recent years. However there is still a potential risk of side effects. People vary in how they interpret words and numbers.

Very common (1:10)

Numbness and heaviness of arm - It will be difficult for you to control the movement of your arm. You will slowly recover from this as the local anaesthesia wears off. It takes 2 - 5hrs for sensation to return while numbness and weakness may last longer between 4 - 24hrs on average 10 - 12hrs.

Inadequate effect of nerve block – Sometimes one or more nerves can escape the local anaesthetic drug. The anaesthetist if not completely satisfied with the effect of block, may ask the surgeon to supplement this by injecting more local anaesthetic at the site of operation. Alternatively, if needed the anaesthetist may give you a general anaesthesia.

Pain during injection - You should tell your anaesthetist immediately if you feel any pain or pins and needle in your arm when a local anaesthetic is being injected as this may indicate irritation/damage to a nerve and the needle will need to be repositioned.

There will be specific risks depending on the type of nerve block you are having. Your anaesthetist will discuss this with you.

Rare (1:10,000)

Bruising – at the site of injection. It usually goes away in a few days.

Nerve damage – temporary loss of sensation, pins and needles and sometimes muscle weakness may occur. This may be due to direct injection, a blood clot forming or not enough blood supply. These symptoms will resolve in 95% of the patients within a 4 - 6 weeks and in 99% within a year. Permanent nerve damage is even more rare. Nerve damage could also result from a surgical procedure.

Systemic toxicity- If the injection is injected into a blood vessel or a large dose is given, fits, loss of consciousness and severe depression of heart function can occur.

Infection – at the site of injection.

Pneumothorax (lung puncture) – for upper limb nerve block. May need insertion of a chest drain.

Aftercare

- You will be given a sling to support and protect your arm from pressure and injury. It should be worn until sensation and control of muscle power returns.
- You should avoid use of any machinery or domestic appliances, be careful around heat sources such as fires/radiators. Injury is possible while you cannot feel your arm.
- Start taking your pain relief medicines before the block wears off. This is important as the pain can appear suddenly.
- It is likely you will go home with the area numb. If the numbness last more than 72hrs you should contact the anaesthetist department.
- You may receive a phone call from hospital, the next day to find out about your well-being.
- If you have any questions please ask your anaesthetist, surgeon or nurses on the ward.

For more information contact

Acute pain team – 01228 814204 (Monday to Friday: 8:30 to 16:30)
North Cumbria University Hospital, NHS Trust
Newtown Rd, Carlisle CA2 7HY

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For further information contact the [Subject Access Coordinators](#)
SACCIC@ncuh.nhs.uk or SACWCH@ncuh.nhs.uk

Feedback

We appreciate and encourage feedback, which helps us to improve our services. If you have any comments, compliments or complaints to make about your care, please contact the PALS team (Patient Advice and Liaison Service) on 01228 814008 between 10.30 and 4.30 Monday to Friday or email PALSCIC@ncuh.nhs.uk.

If you would like this factsheet in another language or format, for example Braille, large print or audio the PALS team will be able to assist you (contact details above)

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