

Regional Anaesthesia (Nerve Block) for Limb Surgery

An information guide



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Introduction

Pain is expected after surgery and there are different ways to provide good pain relief. This leaflet gives information about regional anaesthesia (nerve block) techniques that will be performed by your anaesthetist. This method of anaesthesia ensures that you receive the best possible pain relief for the intended surgical procedure.

What is regional anaesthesia (nerve block)?

Regional anaesthesia is an injection of local anaesthetic agent near the nerves in your neck, arm, hand or leg depending on the type of surgery you are having. In order to perform effective nerve blocks, your anaesthetist will usually use an ultrasound machine to identify the relevant nerves prior to injection. This makes the entire limb or that part of the arm or leg numb and pain free for some hours after the surgery.

How is nerve block performed?

Your anaesthetist will discuss the intended technique in the preoperative check-up area and explain the procedure in detail.

A drip will be inserted into your vein and routine monitors of your heart and blood pressure will be attached.

The skin around the proposed injection site is cleaned with an antiseptic and a small amount of local anaesthetic may be given to numb the skin before the nerve block is administered.

Your anaesthetist will identify the underlying nerves using either an ultrasound machine and/ or a nerve stimulator. The nerve

stimulator if used will twitch the muscles in your arm or leg when the needle is close to the nerve. The ultrasound machine allows your anaesthetist to see the nerves as well as the needle and the spread of the local anaesthetic around the nerve.

As the needle approaches the target nerve, you may feel a tingling sensation as well as pressure while the local anaesthetic is being injected around it. This is normally well tolerated with minimal to no pain/ discomfort and it will pass away. It is however important that you stay as still as possible whilst the nerve block is being given. It can sometimes take more than one attempt to place the needle in the right place.

As the local anaesthetic starts to work, you may feel a tingling sensation that is followed by the arm or leg becoming warm, heavy and numb. This usually happens within a few minutes of the injection and sometimes during the injection itself. It is common to feel that the numb arm or leg doesn't belong to you as it becomes very heavy and weak. Depending on the complexity of the procedure, the entire procedure may take about 5-10 minutes to perform.

However, it takes a further 20-40 minutes for the limb to get anaesthetised completely and the doctor will use a cold spray to confirm that the surgeon can proceed with the operation.

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 directly to the operation theatre on a trolley. A member of staff will sit with you during the operation. Please feel free to bring your own 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 necessary.

If you need a general anaesthetic too, another anaesthetist will administer it in an adjacent anaesthetic room. You will not remember anything and when you wake up the nerve block ensures that you have adequate pain relief.

Benefits of having a nerve block

- Excellent pain relief after surgery which can last between 12-24 hours.
- You should not need strong pain killers and thereby you feel less drowsy or sick after the operation.
- Quick recovery time and early return to eating and drinking. You are also often able to leave hospital earlier.

Side effects and complications

Modern drugs, equipment and extensive training have made regional anaesthesia a much safer procedure in recent years. However, as with any procedure/ intervention there are side effects, risks and complications.

Very common (1:10)

Numbness and heaviness - It will be difficult for you to control the movement of your arm or leg. You will slowly recover from this as the nerve block wears off over the subsequent 24 hours.

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 either perform additional local anaesthetic injections or ask the surgeon to supplement this by injecting more local anaesthetic at the site of operation.

Alternatively, if the nerve block is deemed ineffective, the anaesthetist may give you a general anaesthetic.

Pain during injection - You should tell your anaesthetist immediately if you feel any pain or pins and needle in your arm when the nerve block is being performed. This may indicate irritation/damage to a nerve and the needle may 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 on the day of your operation.

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. These symptoms will resolve in 95% of the patients within 4-6 weeks and in 99% within a year. Permanent nerve damage is rare. Based on available evidence, the risk is estimated at between 1 in 2000 and 1 in 5000 nerve blocks. Nerve damage could also be due to other causes including the actual surgical procedure itself.

Systemic toxicity - If, accidentally, a large dose of local anaesthetic is injected directly into a blood vessel, seizures, loss of consciousness and severe depression of heart function can occur.

Infection - At the site of injection.

Pneumothorax (lung puncture) - For nerve blocks done in the neck. This may need insertion of a chest drain and hospital admission for a few days until resolution of the pneumothorax.

Aftercare

You will be given a sling/brace to support and protect your arm/leg from pressure and injury. It should be worn until sensation and control of your limb returns.

You should avoid use of any machinery or domestic appliances, be careful around heat sources such as fires/radiators. Injuries are possible while you cannot feel your limb.

Start taking your pain killers as prescribed by the clock even if you don't have any pain and the block is still effective. This is important as the pain can appear suddenly and it is then much harder to control without any medications on board.

It is likely you will go home with the area numb. If the numbness last more than 72 hours you should contact the anaesthetic department.

You may receive a phone call from hospital on the following day to enquire about your well-being.

If you have any questions please ask your anaesthetist, surgeon or nurses on the ward before you leave the hospital.

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 0161 604 5987 between 09:30am and 16:30pm Monday to Friday or email pals@pat.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)

Contact information

If you have any questions about the nerve block please ask your anaesthetist for more information.

Anaesthetic Departments

Rochdale Infirmary

Telephone: 01706 517401

The Royal Oldham Hospital

Telephone: 0161 627 8385

Fairfield General Hospital

Telephone: 0161 918 8592

Further information

Further information about regional anaesthesia can be found on the following websites:

Regional Anaesthesia UK

Website: www.ra-uk.org

The Royal College of Anaesthetists

Website: www.rcoa.ac.uk/patientinfo

If English is not your first language and you need help, please contact the Interpretation and Translation Service

Jeśli angielski nie jest twoim pierwszym językiem i potrzebujesz pomocy, skontaktuj się z działem tłumaczeń ustnych i pisemnych

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Dacă engleza nu este prima ta limbă și ai nevoie de ajutor, te rugăm să contactezi Serviciul de interpretare și traducere

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For advice on stopping smoking contact the Specialist Stop Smoking Service on 01706 517 522

For general enquiries please contact the Patient Advice and Liaison Service (PALS) on 0161 604 5897

For enquiries regarding clinic appointments, clinical care and treatment please contact 0161 624 0420 and the Switchboard Operator will put you through to the correct department / service

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