

## Acute Pain Service Patient Information

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# Information

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## Ultrasound Guided Brachial Plexus 'Arm Blocks' for Shoulder, Arm and Hand Surgery

The purpose of this information leaflet is to explain what and how an Ultrasound Guided Nerve Block is and how it helps to control pain. It also provides information on what to be aware of and the Do's and Don'ts on discharge home following a nerve block.

### Introduction

You are going to have surgery on your forearm, wrist or hand soon. You may have heard that you can have different types of anaesthetic:

A general anaesthetic - when you are totally asleep, not just sedated.

A nerve block - numbing solution (local anaesthetic) injected around the nerves (which also provides pain relief afterwards)

Commonly for forearm, wrist or hand surgery a local anaesthetic block is used and you remain awake throughout the operation. This ensures the best post-operative pain relief and increases your ability to go home earlier. The type of anaesthesia used is decided by you, the surgeon and the anaesthetist, but depends on the nature, duration of the surgery, your health, medical conditions, and preferences.

Patients not happy to remain awake may also have sedation or a general anaesthetic (GA) if suitable.

### Local anaesthetic nerve blocks

Your forearm, wrist and hand are supplied by a number of different nerves, which carry both sensory fibres (touch and pain sensation) and motor fibres (to the muscles). By injecting local anaesthetic around these nerves, it is possible to 'block' these signals. In other words there will be a temporary numbness and weakness of the arm below the level of the block. Which nerves are blocked will be determined by the type of surgery you are having.

## Brachial Plexus 'Blocks' ('Nerve' or 'Arm' Blocks)

This is a group of nerves that lies between your neck and armpit. It contains all the nerves that supply everything from your shoulder to your fingertips. An injection of local anaesthetic around these nerves will 'block' information travelling along the nerves resulting in your arm becoming numb and immobile.

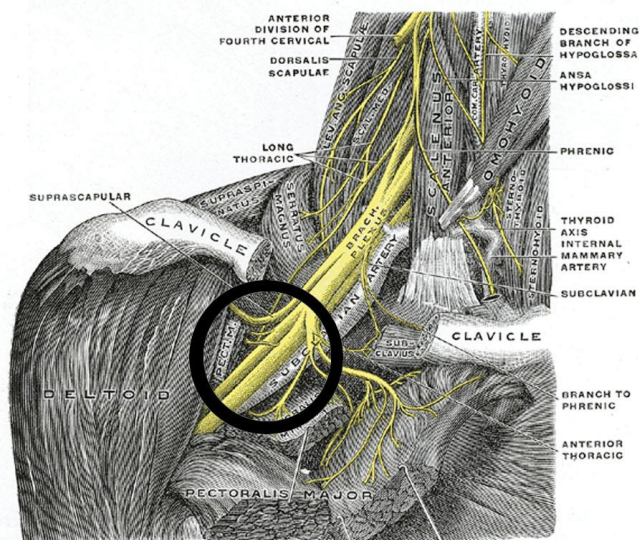
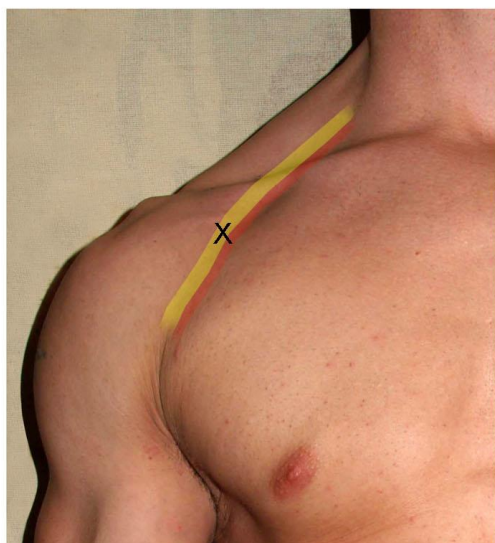
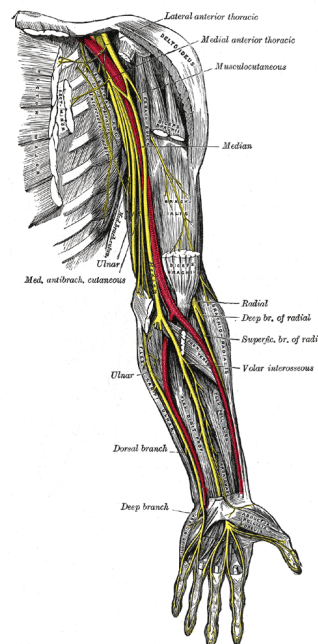
The 'block' should provide you with excellent pain relief for about 10 hours after the operation (range 4 to 24 hours). As the injection works the feeling in your arm changes and you may not be aware of its position, often described as a "dead weight". As the 'block' wears off you may experience pins and needles in your fingers – this is normal.

### The Injection

The local anaesthetic injection is performed in the theatre suite where you will be closely monitored. We inject either in the side of your neck, in your armpit or around your collar bone. The skin around the injection site is cleaned and numbed. The injection is no more painful than having a cannula inserted into a vein.

The nerves are located using an ultrasound machine, with or without a small machine that makes your arm twitch. Once the injection is in the effect will take 20-40 minutes to work.

The anaesthetist will ensure you are comfortable and pain free throughout. Should you choose to 'snooze' through the operation some mild sedation can be given. Occasionally we do not have the personnel available to carry out a nerve 'block' in which case we may only be able to offer a general anaesthetic.



## Benefits

Proven advantages of choosing a 'block' as part of your anaesthetic include better postoperative pain relief, faster recovery, less nausea, and less risk of blood clots. Having the operation awake should allow you to be discharged quicker and avoid the side effects and risks that come with a GA (mainly sickness and drowsiness). If you do have a GA then the pain relief that the 'block' provides should mean you do not need to be given the strong pain relief drugs which can also make you sick and drowsy.

## Side Effects and Risks

As with any anaesthetic, there are risks associated with it however there are benefits of regional anaesthesia. These include incomplete pain relief, soreness, bruising at the needle site, or tingling that lasts for several days. Serious complications can occur but these are very rare: significant bleeding, infection, or nerve injury.

- Injection in the side of the neck: hoarse voice, droopy eyelid, blurred vision, mild shortness of breath (gets better as 'block' wears off).
- Injection around the collar bone: Less than 1:1000 risk of lung damage (discuss with your anaesthetist).
- All injection sites: Local bruising

Very rarely fitting or life-threatening events may occur. Your anaesthetist can tell you more about these if you wish.

## Nerve Damage

The risk of long term nerve damage is rare (between 1 in 15,000 - 30,000). About 0.5% to 1% of patients may notice a prolonged patch of numbness or tingling in their arm. The symptoms will resolve in 95% of these patients within 4-6 weeks, and in 99% within a year.

There is a risk of nerve damage after any operation regardless of the type of anaesthetic used. This is due to the operation, the position you lie in or the use of a tourniquet (a tight band on the upper arm to prevent bleeding during the operation). Swelling around the operation site or pre-existing medical problems such as diabetes may also lead to nerve damage.

## On a personal note

Please feel free to bring in a personal stereo if you would like to listen to music during the operation.



## What about later?

As the block wears off you may begin to feel more discomfort, although by this time a lot of the inflammation and swelling from the surgery should have subsided. Usually your pain will continue to be well controlled with simple painkillers such as paracetamol and ibuprofen (Nurofen™).

You may need to take some stronger painkillers such as Oramorph™ (morphine syrup). The requirements for these types of painkiller will vary from person to person.

## Aftercare Do's and Don'ts

### Do

- Keep arm in sling for support and protection
- Keep arm out of harm's way
- Take regular relief tablets even if you have no pain, you will need them working before the 'block' wears off.

### Do Not

- Use any machinery
- Rest your arm near a fire or radiator. It may be hot and you will not feel it.
- Place your arm where it might be accidentally injured.
- Go into the kitchen!

We hope this leaflet has answered most of your questions, please feel free to ask the anaesthetist any further questions.

## Helpline

Please phone 01305 254502 / 4228 or bleep 508 in office hours or 01305 251150 and bleep 209 out of hours if you notice any of the following:

- Unexplained breathlessness
- Arm still numb or weak 24 hours after the operation
- Pain that is not controlled by your tablets