

Anaesthetics

Ultrasound Guided Regional Anaesthesia for Upper Limb Surgery

Introduction

Most hand and wrist surgery in our unit is carried out using a technique known as regional anaesthesia or nerve block, where your hand and arm are made numb to enable pain free surgery to take place.

This leaflet aims to provide you with information about ultrasound guided regional anaesthesia for upper limb surgery and aims to answer any questions that you may have. Please ask a member of staff if you have any further questions or concerns.

What is ultrasound guided regional anaesthesia?

Your operation can be performed under a type of local anaesthetic. Your hand or arm is made numb and instead of being asleep for the operation you may remain completely awake or receive sedation to help relieve any anxiety.

- Before the procedure is started, you may be given medicines to help you feel more relaxed.
- The appropriate place for injection of local anaesthetic medication is identified using a scan, called an ultrasound.
- The injection is then performed either near the armpit or near the collar bone.
- The arm may be made to twitch so that we know the injection is in the right place. This is an unusual feeling, but not normally painful.
- Your arm will gradually become heavy and numb ('fall asleep') over about 10-20 minutes, and remain so for 2-24 hours, depending on the site and the type of local anaesthetic used.



Patient Information

- The anaesthetist will check that the block is working before surgery

How will regional anaesthesia help my surgery?

Regional anaesthesia will ensure that you remain pain free and comfortable throughout the operation. A member of staff will be with you in the operating theatre and will constantly monitor your heart rate, blood pressure and oxygen levels.

It is normal to feel the surgeon touching your hand or arm during the procedure, but you should not feel anything sharp or painful. If you experience any discomfort at any time, please let a member of staff know so that it can be immediately dealt with.

Your operation will not start until we are absolutely certain that your arm is appropriately anaesthetised.

How do I prepare for regional anaesthesia?

- Your anaesthetist will visit you before the operation and explain the anaesthetic procedure.
- You should make sure that you have nothing to eat for **at least 6 hours** before the procedure.
- Clear fluids (plain water, clear juice, non-fizzy drinks) may be consumed **up to 2 hours** before the procedure.
- Please feel free to bring in a portable music device with earphones, eg iPod if you would like to listen to music during the operation.

What are the benefits of regional anaesthesia?

- Avoids the risks of general anaesthetics.
- A much 'clearer head' and shorter recovery period.
- Better pain relief after surgery and depending on the type and amount of local anaesthetic used the pain relief can last between 4 and 24 hours.
- Less need for strong pain killers, which can make you drowsy and/or make you feel sick
- Ability to eat and drink immediately after surgery.

What are the risks of regional anaesthesia?

As with any procedure, nerve blocks are associated with risks, but serious complications are very uncommon. Some of the complications are listed below:

- Failure of the nerve block - In the unlikely event of this happening, a different form of pain relief or anaesthetic will be given to you.
- Reaction to local anaesthetic - Allergy is very rare, less common than allergy caused by general anaesthesia. Overdose causing serious problems including fits, heart and breathing problems is also very rare. Your anaesthetist is trained to deal with this should it occur.
- Risk to nearby structures such as the lung, blood vessels – extremely uncommon and may occasionally require hospital treatment.
- Bruising to the nerves – extremely rare, and may cause discomfort or pain which usually settles in a few weeks. Permanent nerve injury is even rarer.

Are there any alternatives?

A general anaesthetic may be offered as an alternative. If you decide to stay awake and have a regional anaesthetic but then change your mind, you will not be made to stay awake, additional sedation or general anaesthesia are suitable alternatives. Please ask your anaesthetist if you want to discuss this further.

What would happen without treatment?

This surgery cannot be performed without an anaesthetic but you have a choice on the type of anaesthetic.

What will happen after the anaesthetic?

There are a few important things to remember:

- As long as your arm is anaesthetised ('asleep') you will not feel any pain from it (pain is a useful signal, warning that something is not quite right). Therefore you must make sure that you protect your arm from any accidental injuries.
- You could burn, scald or cut your hand without feeling it at all.

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- You could also squash your arm by sleeping on it.
- Regional anaesthesia will also reduce the tone (tension) in the muscles of your arm. This tone normally helps to stabilise your joints; therefore excessive passive movements of your arm, while it is still anaesthetised, could actually result in dislocation of your shoulder.
- Therefore make sure that you:
 - Keep your arm in a sling while it is still numb
 - Do not sleep on your anaesthetised arm
 - Try to keep your anaesthetised arm raised (helps to reduce swelling)
 - Change position of your arm often. This helps to avoid putting too much pressure on the limb for long periods of time
 - Do not handle potentially dangerous objects or engage in activities that might result in injury to your still numb arm
- The numbness will eventually wear off and the sensation in your hand or arm will return. It is useful to remember that most regional anaesthetic last for 2 to 18 hours (some may last until the next morning). You may get pins and needles sensation in your arm as the anaesthetic wears off. You should start taking your oral pain killers by this time, as prescribed. Most painkiller tablets could take up to an hour before it becomes effective. Do not wait until your pain is really bad. Take your pain killers earlier rather than later. On the day of surgery it is a good idea to take your pain medication before going to sleep that night.

What follow-up care will I need?

We would like to contact you the next day to confirm your wellbeing. This would not only allow us to pick up any problems early but would also give us the opportunity to get feedback on how we performed. Your comments allow us to improve our service and your cooperation in this regard would be greatly appreciated.

Any further questions?

For further information, please ask to speak to your Anaesthetist for the day. Alternatively, the following websites could give you more details:

Complications and Prevention of Neurologic Injury with Peripheral Nerve Blocks- <http://www.nysora.com/neurologic-complications-of-peripheral-nerve-blocks>

The Trust has access to interpreting and translation services. If you need this information in another language or format please contact your anaesthetist and we will do our best to meet your needs.

The Trust operates a smoke free policy.

Document History	
Department:	Anaesthetics
Contact:	25892
Updated:	September 2020
Review:	September 2022
Version:	1.1
Reference:	HIC/LFT/2106/17