A patient’s guide to

Nerve blocks for surgery on the shoulder and arm
This leaflet has been produced to help answer some questions about nerve blocks for an operation on the shoulder or arm. Nerve blocks can be used to provide you with comfort both during your surgery, and in the post-operative period.

**Introduction**

Your anaesthetist will meet you on the morning of your operation and they will talk to you about the general anaesthetic you will be receiving. This is the time to ask questions and tell the anaesthetist about any worries you have.

To help prepare you for your surgery, it is helpful to know the common types of nerve blocks that we routinely perform.
Brachial Plexus Nerve Blocks

The brachial plexus is the group of nerves that lies between your neck and your armpit. It contains all the nerves that supply movement and feeling to your arm – from your shoulder to your fingertips.

A brachial plexus block is an injection of local anaesthetic around the brachial plexus. It ‘blocks’ information travelling along these nerves. It is a type of nerve block. Your shoulder and arm become numb and immobile.

You can then have your operation without feeling anything. The block can also provide excellent pain relief for between three and 24 hours, depending on what kind of local anaesthetic is used. This means you will need less morphine-type drugs for pain relief, which can cause side effects such as nausea and vomiting, itching, confusion, and constipation.
Having the injection

You need to prepare for the operation by not eating or drinking. The hospital should give you clear instructions about this. You will go into the anaesthetic room near the operating theatre to have the local anaesthetic nerve block injection.

The injection for a brachial plexus block is in the side of your neck, or in your armpit, or close to your collar bone. If you are anxious about having this nerve block performed, we can provide you with a sedation. Sedation is commonly given before the injection is done. This is when drugs are given which help you relax. The nerve block can also be performed after your general anaesthetic, so you are unconscious.

The skin around the injection site is cleaned. A small injection of local anaesthetic numbs the skin. The nerves are located using an ultrasound machine. Using ultrasound we are able to see your nerves, the needle and the local anaesthetic surrounding the nerve. This ensures the best chances of a successful block (image right).

Most people find that the injection is no more painful than having a cannula inserted into a vein. Your arm will start to feel warm, heavy and numb. The injection takes between 10 and 40 minutes to work.
At times the block does not work fully. This may be due to the operation being more extensive than expected or due to technical difficulty with the injection. If this happens, you will be offered more local anaesthetic, and additional pain relief during your operation to keep you comfortable and pain-free.

Benefits of having a brachial plexus block

- Better pain relief afterwards. There may be less need for strong pain relief (like morphine) medicines which make some people feel quite sick and unwell.
- Often able to leave the hospital sooner.

Risks of having a brachial plexus block

- **Injection in the side of the neck**: hoarse voice, droopy eyelid, some difficulty breathing. These resolve as the block wears off.
- **Injection around the collar bone**: less than 1 in a thousand risk of damage to the covering of the lung. Your anaesthetist will discuss this with you.
- **All injection sites**: damage to a blood vessel which usually resolves with simple compression to stop any bleeding.
- **Very rarely**: having a fit or another life threatening event may occur. Your anaesthetist will manage these promptly. They can tell you more about these very rare events.
Nerve damage

• The risk of long-term nerve damage caused by a brachial plexus block is difficult to measure precisely. Studies show that it happens in between 1 in 700 and 1 in 5,000 blocks.
• There is a risk of nerve damage after any operation regardless of whether you have had a block. This can be due to the operation, the position you lie in or the use of a tourniquet (tight band on the upper arm which prevents bleeding during the operation). Swelling around the operation site or a pre-existing medical condition, such as diabetes, may also contribute to nerve damage.

After the operation

• During the time the block is working you will not be able to use your arm. You will probably be given a sling and you may need someone to help you look after yourself.
• You should start taking pain relief medicines while your arm is still numb and before the block wears off. This is so that they start working ready for when the block wears off.
• As the block wears off you may experience pins and needles in your fingers – this is normal.
Aftercare

You should:

- Keep your arm in the sling you are given, for support and protection. You will not be fully aware of the position of your arm – so it can be injured without you realising
- Be especially careful around heat sources, such as fires or radiators. You will not feel heat while your arm is numb and burns can happen
- Avoid use of any machinery or domestic appliances. 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 quite suddenly.

Where can I get further information?

This information leaflet provides a brief overview of the nerve blocks used for surgery on the shoulder and arm. In modern anaesthesia serious problems are uncommon. Risk cannot be removed completely, but with the use of modern equipment and medicine, together with on-going training, anaesthesia has been made much safer in recent years.

For detailed and extensive information on all aspects of anaesthesia, including further advantages/disadvantages and detailed risks, please visit the Royal College of Anaesthetists [www.rcoa.ac.uk/patientinfo](http://www.rcoa.ac.uk/patientinfo)