Brachial Plexus Block

Pain relief for upper limb operations

What is Brachial Plexus Block?

Upper limb operations can cause considerable pain during the first 24 hours. One of the most effective ways to deal with this pain is a procedure called Brachial Plexus Block. This is a local anaesthetic injection above or below the collar bone or in the arm pit. This will temporarily block the nerve fibres that carry sensations from the arm.

How is it done?

In the anaesthetic room, a small plastic tube (drip) will be inserted into the back of your hand. Routine monitoring of heart rate, blood pressure and blood oxygen levels will be started. A small amount of sedation may be given to make you drowsy.

Brachial Plexus Block is then performed either above or below the collar bone or in the axilla on the side of the operation. To help locate the nerve, the anaesthetist uses an ultrasound scanning probe and/or a nerve stimulator.

After cleaning the skin, local anaesthetic is injected into the skin to numb the area. A special block needle connected to a small box (nerve stimulator) giving out an electric current is inserted through the numbed skin until a twitching of the arm is seen. This twitching is not painful. Finally the local anaesthetic is injected and the twitching stops. If you feel any pain at this point please say so.

Your arm starts to feel warm and tingly quite soon after the injection. The extent of numbness will be checked before the start of the operation.

Depending on the operation you can then stay awake, have light sedation or a light general anaesthetic to supplement the nerve block.
You can choose to bring an iPod or similar if you want to listen to music.

**What are the benefits?**

In the majority of cases, the nerve block works really well. You will have good pain relief for 12 to 18 hours after the operation and should be able to manage on a small amount of pain killers as the numbness wears off. The nerve block is a more effective form of pain relief than painkillers and will help get you home quicker.

**What are the side effects / complications?**

If the block does not work properly, then we will give you other pain killers.

There is a minor risk of bleeding due to damage to a blood vessel. This can be managed safely by applying direct compression to the site.

There is a small risk (1 in 1000 patients) of damage to the covering of the lung when the injection is placed. This can lead to partial collapse of the lung on that side. This can usually be managed safely without delaying surgery and serious permanent harm is very rare.

Nerve damage due to direct injection into a nerve or because of bleeding or infection is extremely rare. The best available studies suggest this risk to be between 1 in 15,000 and 1 in 30,000.

Temporary nerve damage occurs in 1 in 20 patients causing patchy areas of tingling or numbness. This usually resolves within 3 weeks but can occasionally last longer.

Nerve damage can also happen due to the operation itself, pressure on nerves from swelling, or positioning during the operation; or even from pre-existing medical conditions like diabetes.

**Discharge advice**

Your arm will be numb for about 12 to 24 hours and in some cases even longer. The arm needs to be kept in a sling for support.

You should pay special attention not to damage the arm while it is numb. Be careful with hot drinks and food. If you spill anything hot on your numb arm, you may get a burn without realising it.
When the local anaesthetic starts to wear off, you may start feeling some pain from the operation site. Take the painkillers as prescribed so that you have good pain relief as the block wears off.

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

More information can be found on: www.rcoa.ac.uk/patientinfo

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