

INTERSCALENE BRACHIAL PLEXUS BLOCK

What is a peripheral nerve Block?

This is an injection of local anaesthetic in the vicinity of the nerves which go to the area of the operation, making the area go numb.

Why should I have a Block?

Shoulder surgery can cause considerable pain in the first 24 hours after the operation. One of the most effective way of relieving this pain is to use a procedure called an interscalene brachial plexus block, which numbs the nerves carrying pain sensation to the shoulder.

Your operation can then be done under block alone or in combination with sedation or a general anaesthetic.

What are the benefits of a nerve block?

Benefits of a nerve block may include a shorter recovery period and better pain relief. You may not need as many strong pain relieving medicines such as morphine. This will help reduce your risk of side effects associated with these medicines such as nausea(feeling sick) and drowsiness.

What is the interscalene brachial plexus?

The nerves supplying the shoulder and arm come from the spinal cord and form a bundle in your neck and then run under the collar bone, through your armpit in to the arm. This bundle of nerves is called the brachial plexus .

The part of the brachial plexus that supplies your shoulder sits in a groove in your neck called the interscalene groove. (picture of brachial plexus)

How is the Interscalene brachial plexus block done? (picture of a block being done)

It is usually performed while you are awake with a bit of sedation to make it comfortable for you.

It is necessary to identify the nerves correctly before they can be blocked successfully.

- This can be done with the aid of a nerve stimulator which passes a small current through a special needle. When this needle is close to the nerve muscle twitches are observed in the shoulder and the arm. This is a peculiar sensation but it is completely safe.
When the anaesthetist is completely happy with the position of the needle, he or she will inject some local anaesthetic.
- Alternatively the nerves may be found by using an ultrasound machine alone or in combination with the nerve stimulator.

After the needle is accurately located and the local anaesthetic solution injected, numbness is produced in the shoulder and arm usually for 8-18 hours. (This can be very variable). During this time the arm will feel very heavy too.

What are the side effects of an Interscalene Nerve block?

Most side effects are related to the local anaesthetic spreading and numbing the nerves adjacent to the ones that supply the shoulder and the arm. Most of them last only as long as the local anaesthetic lasts.

- Shortness of breath: The injection in the neck can also numb half of the diaphragm(A muscle used in breathing). Some people can feel slightly short of breath, although in most this does not affect greatly the ability to breathe adequately.
- Drooping of the eyelid on the side of the block (this does not normally affect your vision) and flushing of the face (20%)
- Hoarseness of voice (15%) Due to the nerves supplying the voice box being numbed. This improves as the local anaesthetic wears off.
- Pins and needles in your hand.

What are the complications of an interscalene nerve block?

They are extremely rare and include pneumothorax (punctured lung). Very rarely a tube has to be placed in the chest to drain the air .

Other rare problems could be altered sensation in part of the arm or hand which may persist for some weeks, but which usually resolves on its own.

Long term nerve problems are very rare indeed(around 1 in 5000 to 1 in 30,000 nerve blocks).

Fortunately, the serious side effects and complications are uncommon and are further lessened by placement of block with the use of nerve stimulator and ultra sound.

What happens if the block does not work?

Occasionally (less than 1 in 100) the block is unsuccessful. If this happens other forms of pain relief will be given.

What happens when the block wears off?

When the block wears off, you may feel pins and needles in your arm or hand which gradually disappears. It is important to start taking pain killers by mouth before you start to get pins and needles to make sure you are comfortable when the block wears off.