

## **Brachial plexus block: What should you know?**

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### **Introduction**

This leaflet aims to provide you the basic information about the brachial plexus block that you are going to receive. If you have any questions about this procedure that are not covered in this leaflet, please discuss with your anaesthetist who will be willing to answer your questions.

### **What is brachial plexus?**

The brachial plexus is a group of nerves that provide sensation and power to your shoulder, forearm, arm and hand. These nerves come out from your neck and travel down through your armpit to your arm and hand.

### **What is brachial plexus block?**

Brachial plexus block is a form of regional anaesthesia. Local anaesthetic is injected around the brachial plexus and this will temporarily block the sensation and power of the upper limb at that side.

These nerves can be blocked by injecting local anaesthetic into your neck region (interscalene brachial plexus block), around the collar bone (supra or infraclavicular block), or into the arm pit region (axillary block). The site of injection depends on the site of your operation.

It can alone provide regional anaesthesia for operation of your upper limb. More commonly, it is used to supplement general anaesthesia to provide pain relief during and after your upper limb operation.

## **Are there any conditions that make me not suitable for brachial plexus block?**

Your anaesthetist will determine whether you are suitable for brachial plexus block after assessing your medical conditions and the nature of your operation. Some conditions may make you unsuitable for the block:

- If you refuse
- If you have bleeding disorder: ease of bruising/prolonged bleeding
- If you receive anticoagulant or anti-platelet treatment: medications to ‘thin’ your blood or prevent clotting
- If you have infection around the proposed injection site

## **General information about the brachial plexus block**

- Your nerve block will be performed by your anaesthetist. He/she will do a pre-anaesthetic assessment before the procedure, including brief history taking, medical examination and review your investigation results. He/she will also discuss with you on the risks and benefits of your procedure and sign the consent form with you.
- Fasting: you should fast at least 6 hours before your operation. You can safely drink water until 2 hours before the operation.
- You are allowed to take your usual medications (as instructed by your anaesthetist) with sips of water while you are fasting.
- If you feel unwell on the day of your operation, you should inform the hospital and your operation may need to be postponed.

## **How is brachial plexus block performed?**

- Vital sign monitors will be attached to you before the nerve block.
- Your anaesthetist will insert an angio-catheter into your vein and attach it to a running drip.
- Your nerve block will be done awake, after sedation or general anaesthesia
- You will be asked to lie flat with special head and neck or upper limb position depending on the site of needle insertion.

- Peripheral nerve stimulator or ultrasound machine may be used to guide needle insertion and help to locate the nerves.
- Local anaesthetics will be injected around the brachial plexus. Your arm will feel warm and tingly, then numb and heavy.
- Occasionally, a catheter may be inserted through the needle to provide longer pain relief.
- If unfortunately the block is not successful or not working well, general anaesthesia may be needed.

### Is there any risk of brachial plexus block?

Brachial plexus block is generally a safe procedure. However, it does have risks and complications.

Most complications result from injection of local anaesthetic drugs into the blood vessels, intraneural injection of the nerves, or damage of the surrounding tissues by the needle.

We do not have the exact incidences of the anaesthetic and related complications in Hong Kong. However, some data have been collected in some overseas countries and they are quoted for reference. Please bear in mind that they may not reflect the situation in Hong Kong.

<b>Very common and common side effects</b>	<b>Rare or very rare complications</b>
Recurrent laryngeal nerve block	Blood vessels and nerves damage
Phrenic nerve block	Local anaesthetic toxicity
Horner's sign (myosis/ptosis/anhidrosis)	Local anaesthetic allergy
Pneumothorax	Seizure
Haematoma formation	Epidural or subarachnoid injection
	Local infection

Different approaches may result in slight different incidences and types of complications.

## Remarks

This is general information only and the list of complications is not exhaustive. Other unforeseen complications may occasionally occur. In special patient groups, the actual risk may be different. For further information please contact your anaesthetist.

Complications may sometimes occur despite all precautions. However, if they do occur, your anaesthetist will take appropriate steps to manage them.

### \*Reference of occurrence rate

Very common	Common	Uncommon	Rare	Very rare
1 in 10	1 in 100	1 in 1000	1 in 10,000	1 in 100,000