



## Day Surgery

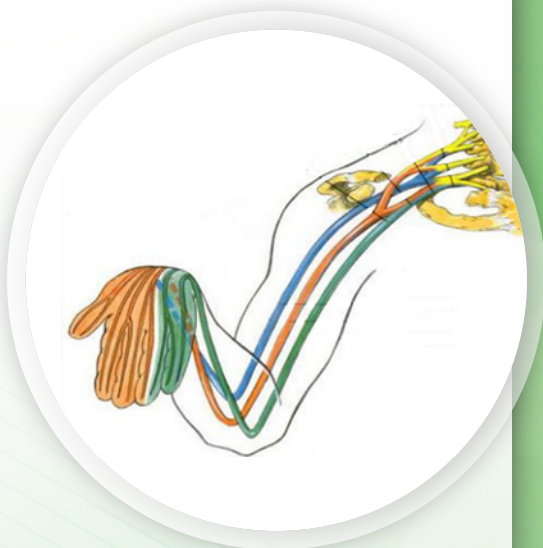
# Patient information for Brachial Plexus Block

# 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.

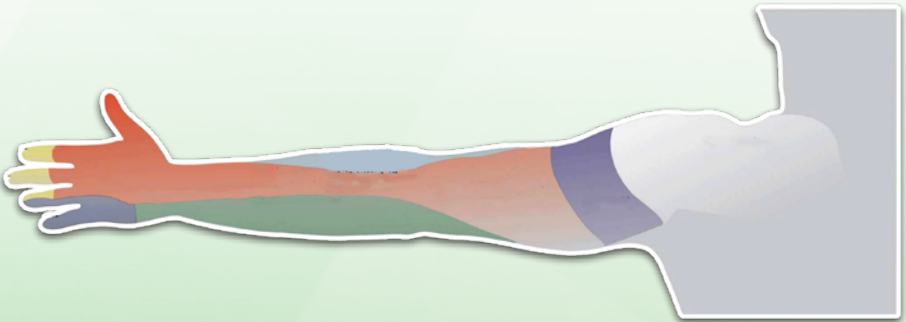


## What is brachial plexus block? .....

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 or 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 not eat 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 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 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.

### **Very common and common side effects**

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Recurrent laryngeal nerve block

Phrenic nerve block

Horner's sign (myosis/ptosis/anhidrosis)

Pneumothorax

Haematoma formation

### **Rare or very rare complications**

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Blood vessels and nerves damage

Local anaesthetic toxicity

Local anaesthetic allergy

Seizure

Epidural or subarachnoid injection

Local infection

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



## After the operation .....

- While the block is working, you will not be able to use your arm. You will be given a sling and you may need someone to look after you.
- It will take some hours for feeling to return to your arm. This can be from 1 to 36 hours, depending on the type of anaesthetic injection that is used.
- You should start taking painkillers while your arm is still numb and before the block wears off. This is so that they start working when the block wears off. When this happens you may experience pins and needles in your fingers- this is normal. (Please refer to postoperative pain pamphlet for more information)
- Sometimes sedation is given. This will affect your judgement, coordination and memory for 24 hours. In this time, you must not:
  - ✗ Look after dependents
  - ✗ Drive a car or ride a bicycle
  - ✗ Cook or operate machinery
  - ✗ Make any important decisions eg. sign a legal document
  - ✗ Take sleeping tablets
  - ✗ Drink alcohol



- A capable adult will need to take you home by car or taxi- ideally not public transport. As the effects of sedation can last up to 24 hours, they should stay overnight to look after you. If arrangements have not been made for someone to accompany you after treatment, you may not be able to go home after the procedure.
- Sedation may make you unsteady on your feet. Please be careful on stairs and have somebody with you if you feel unsteady.
- You should take your usual medicines unless you are told not to by your doctor.

## Aftercare .....

- Your arm might still be numb when you return home from hospital.
- You should keep your arm in the sling you are given, for support and protection until normal sensation and movement returns. You will not be fully aware of the position of your arm- so it can be injured without you realizing.
- 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 using any machinery or domestic appliances. Injury is possible while you cannot feel your arm.



# 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

<b>Very common</b>	<b>Common</b>	<b>Uncommon</b>	<b>Rare</b>	<b>Very rare</b>
1 in 10	1 in 100	1 in 1000	1 in 10,000	1 in 100,000

*Reference*

*Coordinating Committee in Anaesthesiology (2018) Brachial Plexus Block. v1.1;PILLIC0153E*