

Central Neuraxial Block (Spinal/Epidural Anaesthesia) for Adults:

What should you know?

Introduction

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

What is central neuraxial block?

Central neuraxial block is a technique of anaesthesia where nerves from the spinal cord are anaesthetized. This can be done by the following methods:

Spinal anaesthesia: a very thin needle is inserted between the bones of your spine into the spinal canal. A small amount of local anaesthetic drug is injected so that the nerves from the spinal cord are anaesthetized.

Epidural anaesthesia: a needle is inserted between the bones of your spine into the epidural space (outside the dura membrane but within the spinal canal), a fine plastic tube is then passed through this needle and positioned in the epidural space. Local anaesthetic drug can be injected through the plastic tube to anaesthetize the spinal nerves.

Combined spinal epidural anaesthesia: the spinal and epidural anaesthesia can be done together using a specially designed needle set.



What will you feel during your central neuraxial block?

You will lose sensations over the lower part of your body. Thus you will not experience any pain although you may be aware of a vague sense of touch. Also, you will lose power in your legs during the duration of the block. You will still be awake and know that the operation is taking place but will not be able to see the operation because a screen will be placed. If safe and appropriate, your anaesthetist will give you sedative drug to relieve your anxiety or you may request this. Your sensation and power will come back after the effect of the local anaesthetic drug

wears off. It may require a few hours for full sensation and muscle power to return and to allow walking. An epidural can be topped up with an infusion of local anaesthetic for several days after surgery in order to relieve your pain.

Are there any conditions that make you unsuitable for central neuraxial block?

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

- 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 to prevent clotting
- If you have infection over your back around the proposed insertion site
- If you have had an operation of the back before, especially with the presence of an implant
- If you have a history of hypersensitivity to the local anaesthetic drugs

Who is responsible for your central neuraxial block?

Your central neuraxial block will be provided by your anaesthetist. Anaesthetists are medical doctors who are trained and specialized in providing anaesthesia. Your anaesthetist/s will stay with you all the time during the anaesthesia and ensure your safety during your operation.

Pre-anaesthetic assessment

You will usually be seen by your anaesthetist before your operation. Your anaesthetist may do the following things in the assessment:

- Ask about your medical, surgical, anaesthetic, allergic and drug history
- Ask about your smoking or drinking habits
- Perform a physical examination
- Review your investigation results and order further investigations if needed
- Discuss the plan for your anaesthesia and explain the risks and benefits
- Suggest pre-anaesthetic preparations and drug treatment
- Obtain consent for anaesthesia from you

Do you need to fast before operation?

- Similar to patient receiving general anaesthesia, you should not eat for at least 6 hours before your operation: known as ‘fasting’. You can safely drink water up to

2 hours before anaesthesia.

- Fasting usually starts from midnight if you are scheduled to have your operation the following morning, or from 7 a.m. if you are scheduled to have your operation in the afternoon of that day. You can safely drink water until 2 hours before the operation. The hospital will give you clear instructions about fasting and you should follow these.

Your usual medications

Your anaesthetist will advise you on which usual medications you should or should not take on the day of your operation. You should follow these instructions. You are allowed to take your medications with a mouthful of water while you are fasting.

What should you do if you feel unwell on the day of operation?

Please inform the hospital if you feel unwell on the day of your operation. Your operation may need to be postponed until you feel better in order to reduce unnecessary risks.

On the day of operation

- In the theatre, your anaesthetist, surgeon and operation nursing staff will check your identity, the type of operation, the site of operation and the type of anaesthesia before the procedure. This is to ensure you are the right patient and your planned operation and anaesthesia are correct; we call this final verification process as ‘time out’
- Various monitors will be attached to you
- Your anaesthetist will insert a catheter/plastic tubing into your vein with a needle before performing central axial block
- You may be asked to lie on your side or to sit up while your anaesthetist performs the block
- The block will be done using a sterile technique
- After the block is done, your anaesthetist will assess the effect of anaesthesia before the operation starts. It may be necessary for you to have general anaesthesia if the effect of the central neuraxial block is not satisfactory
- The anaesthetist will stay with you at all times during the operation, monitor your vital signs, give you treatment as necessary and ensure your safety

Post-operative Pain relief

After the block wears off, you may start to have wound pain. Pain relief may be extended by continuing to inject local anaesthetic drugs through the epidural catheter or drugs like morphine can be given. Your anaesthetist will discuss the different choices with you.



Is there any risk in central neuraxial block?

In general, central neuraxial block is safe. The side effects and complications associated with this anaesthetic technique can be divided into those that are very common, common, rare or very rare*.

* 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

<i>Very common and common side effects</i>	<i>Rare or very rare complications</i>
<ul style="list-style-type: none"> • Self limiting headache 	<ul style="list-style-type: none"> • Spinal or epidural blood clot
<ul style="list-style-type: none"> • Self limiting back pain 	<ul style="list-style-type: none"> • Epidural abscess and infection
<ul style="list-style-type: none"> • Transient difficulty in passing urine 	<ul style="list-style-type: none"> • Nerve damage and paralysis
<ul style="list-style-type: none"> • Itching associated with morphine 	<ul style="list-style-type: none"> • Local anaesthetic toxicity
	<ul style="list-style-type: none"> • Irregular heart rate

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.