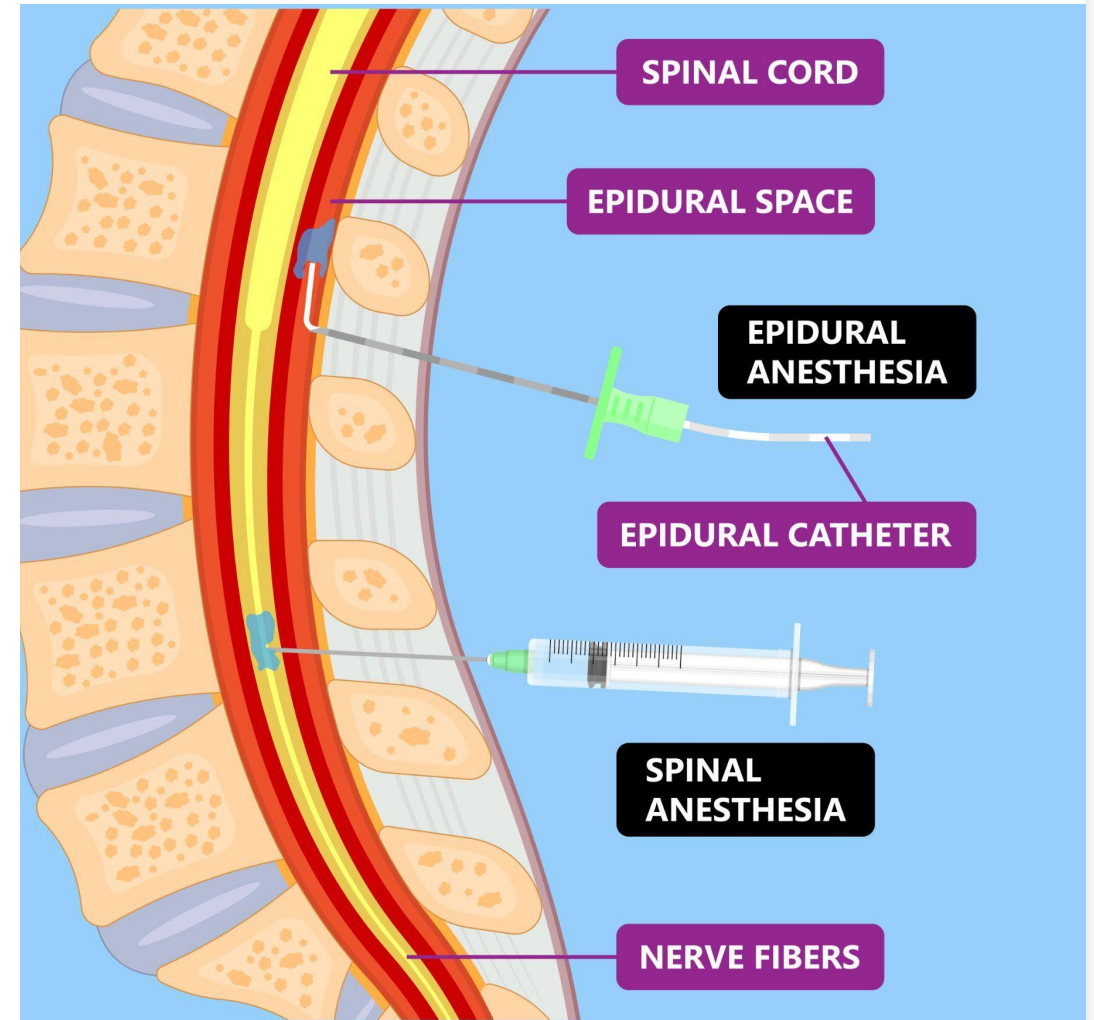


An Introduction to Central Neuraxial Block



What is Central Neuraxial Block?

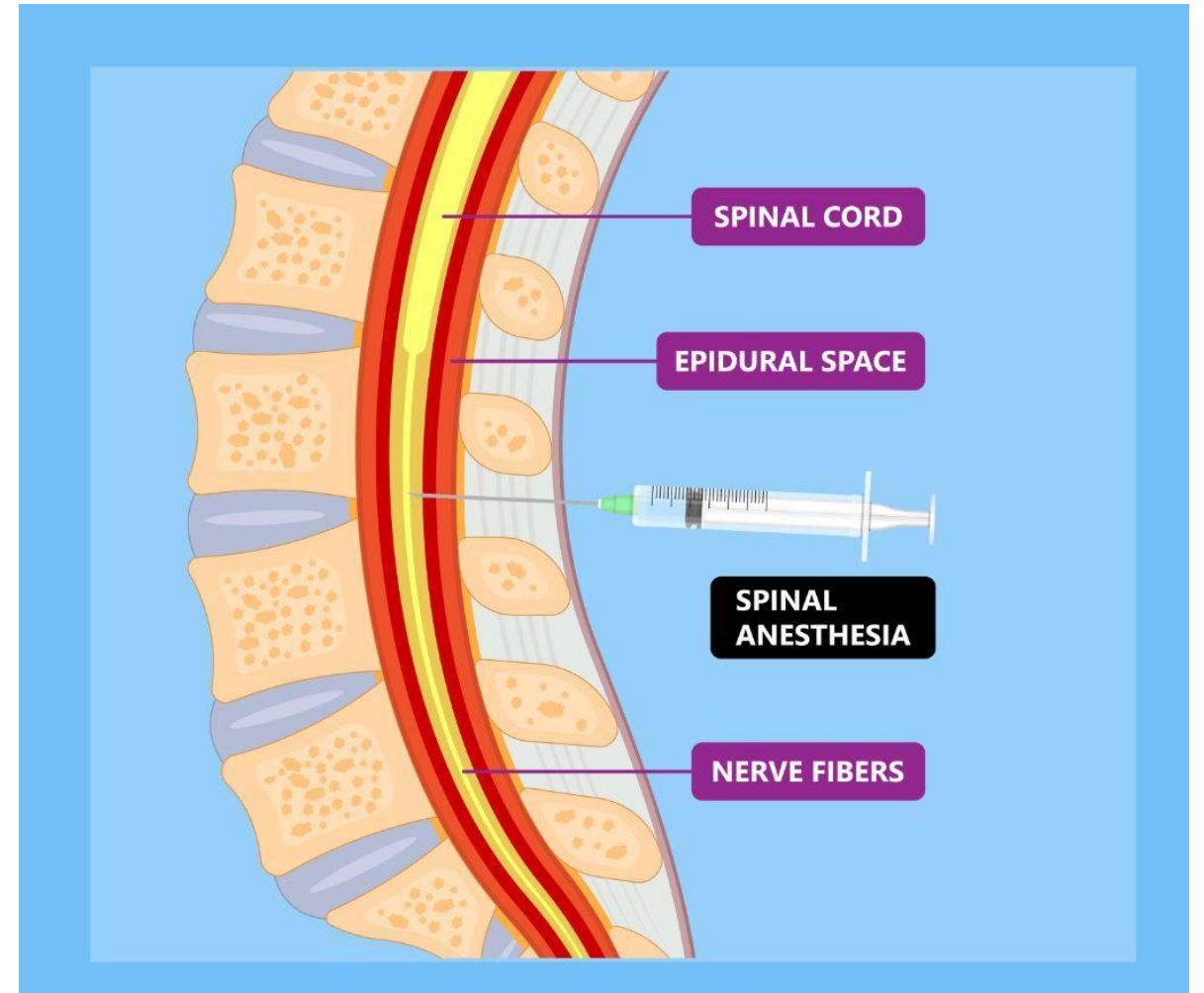
- It is a technique of anaesthesia where nerves from the spinal cord are anaesthetized
- This can be done by the following methods:
 - Spinal anaesthesia (SA)
 - Epidural anaesthesia (EA)
 - Combined spinal epidural anaesthesia (CSE)

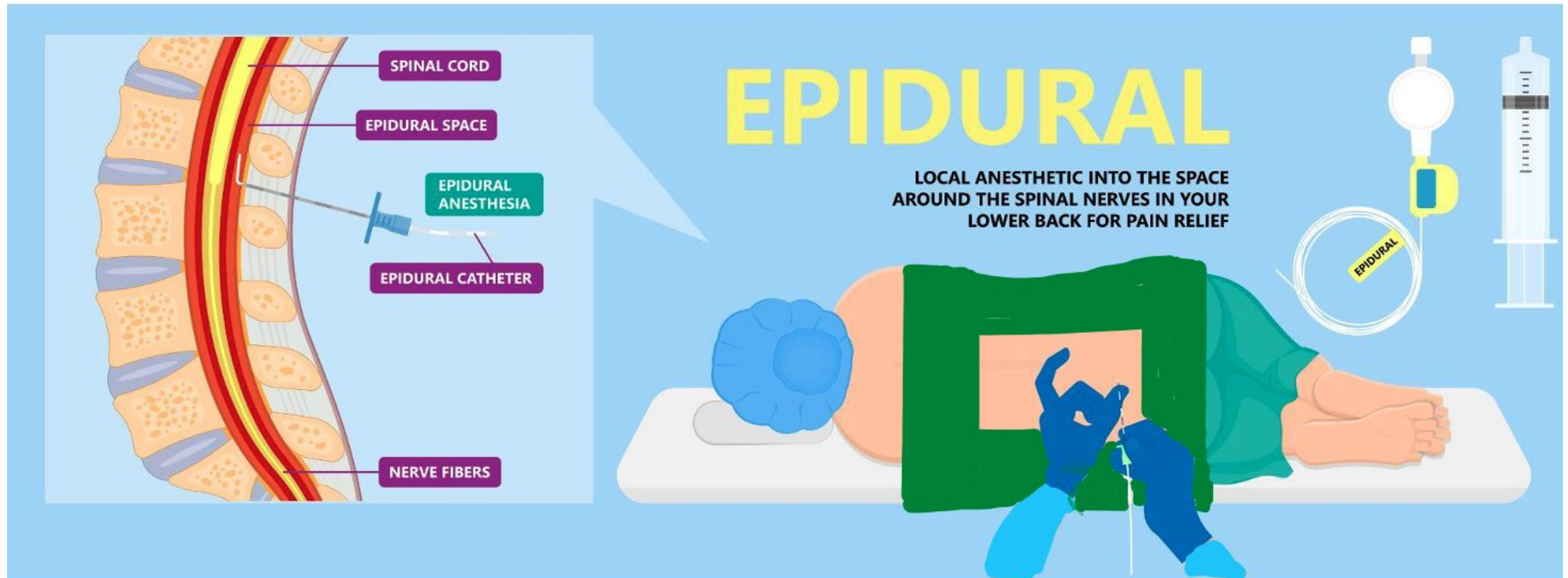


Spinal Anaesthesia

How is Spinal Anaesthesia Performed?

- 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.





How is Epidural Anaesthesia Performed?

- 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

How is Combined Spinal Epidural Anaesthesia Performed?

- Spinal and epidural anaesthesia can be done together using a specially designed needle set.
- The duration of anaesthesia can be prolonged.

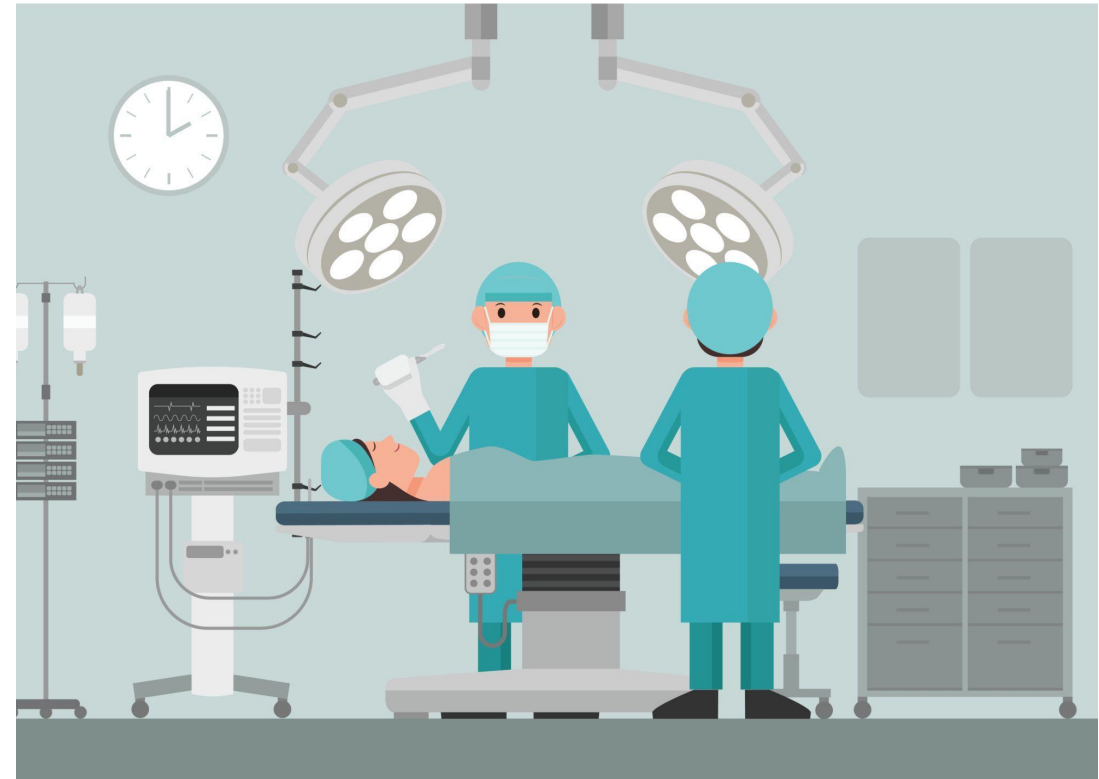


What will you Feel during your Central Neuraxial Block?



What will you Feel during your Central Neuraxial Block? (1)

- You will lose sensations and power over the lower part of your body.
- You will not experience any pain although you may be aware of a vague sense of touch.
- You will still be awake and know that the operation is taking place.
- You may request your anaesthetist for sedative drug to relieve your anxiety.



What will you Feel during your Central Neuraxial Block? (2)

- Your sensation and power will come back after the effect of the local anaesthetic drug wears off a few hours later.
- 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?

- After assessing your medical condition and the nature of your operation, your anaesthetist will determine whether you are suitable for central neuraxial block or not.



What are the conditions that may make the patient Unsuitable for Central Neuraxial Block?

- If the patient:
 - Refuses the procedure
 - Has bleeding disorder
 - Is on anticoagulant or anti-platelet treatment
 - Has infection over the back
 - Has previous operation of the back
 - Has history of hypersensitivity to the local anaesthetic drugs



Who is responsible for your anaesthesia?

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



What is Pre-anaesthetic Assessment? (1)

- You will be seen by an anaesthetist before your operation.
- The anaesthetist will do the followings 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



What is Pre-anaesthetic Assessment? (2)

- Your anaesthetist will also:
- 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 I need to Fast Before Operation?

- **You should fast before operation to prevent aspiration of food materials into the lungs.**

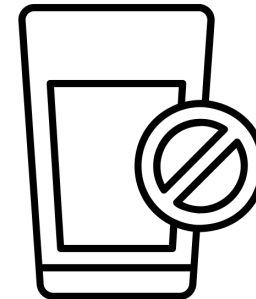


How Long should I Fast Before Operation?

- You should not eat for **at least 6 hours** before operation



- You can drink water up to **2 hours** before operation



When should I Start Fasting?

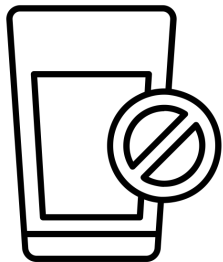
- Please follow the instructions from the hospital.
- In general:

For Operation Scheduled in the Morning on next day

- Fast from **Midnight**



- You can drink water up to 2 hours before operation.

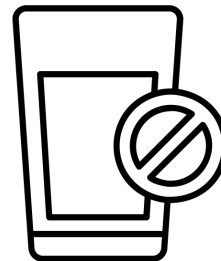


For Operation Scheduled in the Afternoon

- Fast from **7 am on day of operation**



- You can drink water up to 2 hours before operation.



Do I need to take my Usual Medications on the Day of Operation?

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



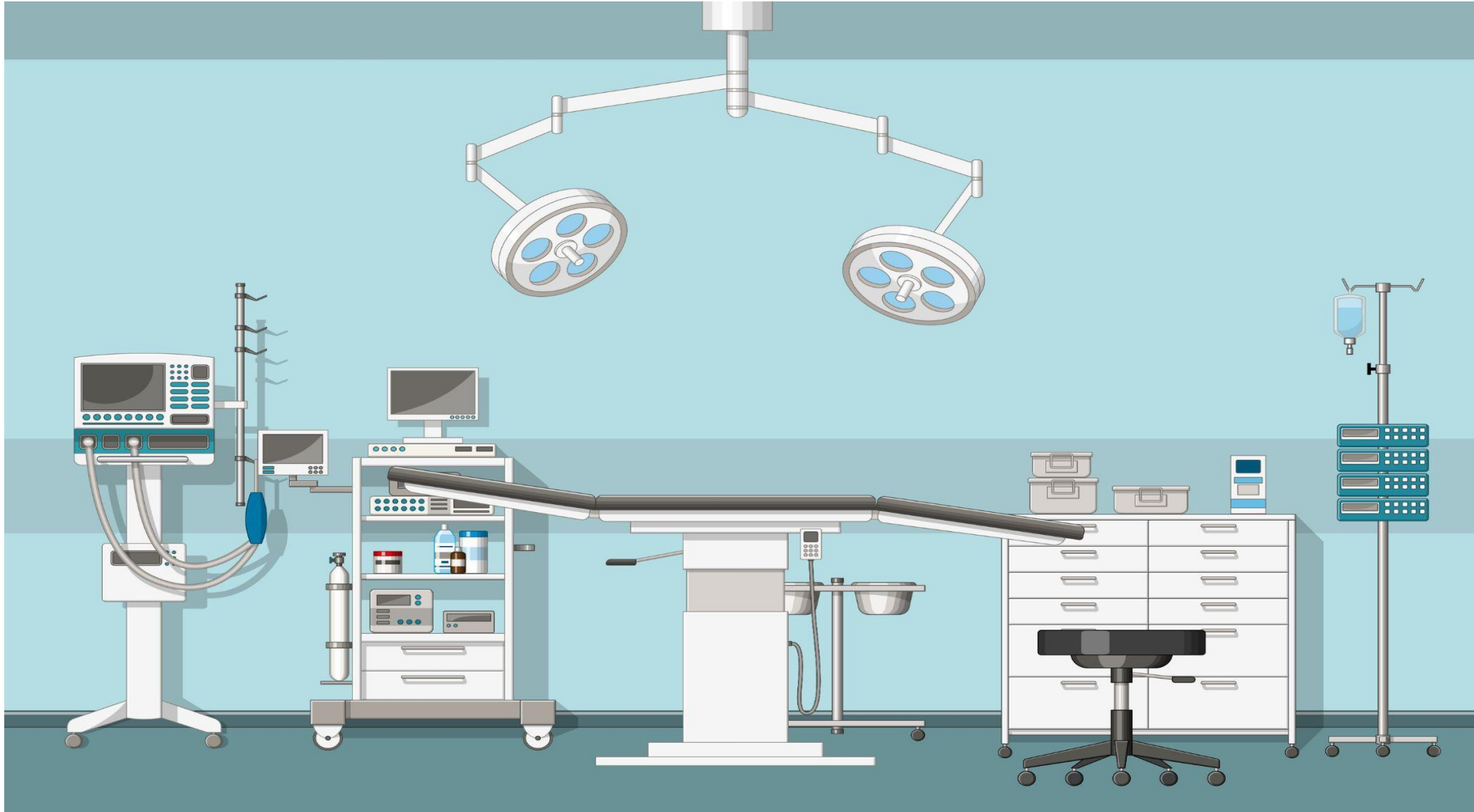
What should I do if I Feel Unwell on the Day of Operation?

Please inform the hospital.

Your operation may need to be postponed until you feel better in order to reduce unnecessary risks.



On the Day of Operation



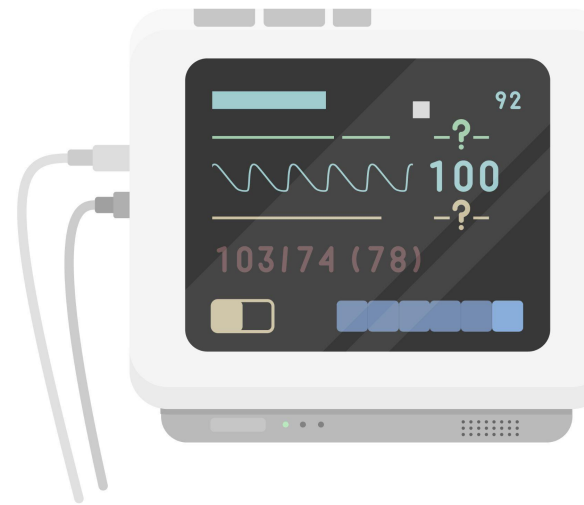
What will happen after entering into the Operating Theatre? (1)

- The medical staff will ensure you are the correct patient, and your planned operation and anaesthesia are correct.
- Upon arrival in the theatre, your anaesthetist, surgeon and operating nursing staff will check:
 - Your identity
 - The type of operation
 - The site of operation
 - The type of anaesthesia before the procedure.

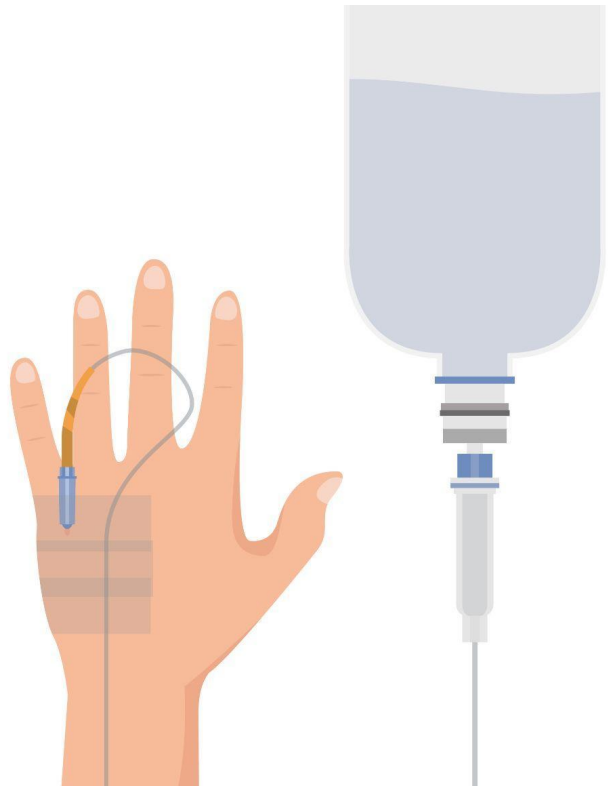


What will happen after arrival into the Operating Theatre? (2)

- You will be connected to various monitors.
- The amount of monitoring will depend on your medical conditions and the complexity of the operation.
- The aim is to perform anaesthesia and operation in the safest way.



What will happen after arrival into the Operating Theatre? (3)



- Before performing central neuraxial block, your anaesthetist will insert a catheter (plastic tube) into your vein

How is Central Neuraxial Block Performed? (1)

- The procedure will be done using a sterile technique
- You may be asked to lie on your side or to sit up while your anaesthetist performs the block
- After the block is done, your anaesthetist will assess the effect of anaesthesia before the operation starts.

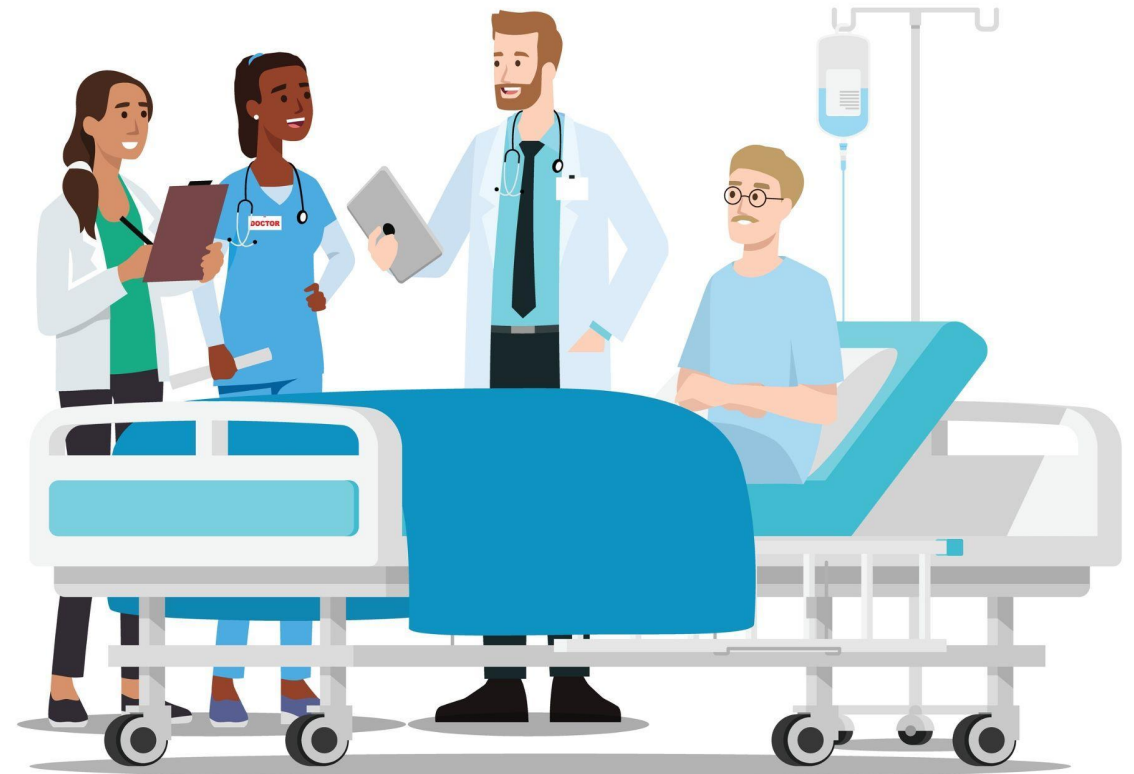


How is Central Neuraxial Block Performed? (2)

- If the effect of the central neuraxial block is not satisfactory, it may be necessary for you to have general anaesthesia.
- The anaesthetist will stay with you at all times during the operation to monitor your vital signs and to give you treatment as necessary.



Post-Operative Pain Relief



After the block wears off, you may start to have wound pain.

- Common pain relief methods include:
 - Oral painkillers
 - Injectable medications
 - (intravenous or intramuscular)
- Special types of pain relief methods include:
 - Local anaesthesia and regional blocks
 - Epidural analgesia
 - Patient controlled analgesia



- If you have an epidural catheter, the pain relief effect can be extended by injecting medications such as morphine or local anaesthetics through the epidural catheter.

Is there any risk in Central Neuraxial Block?

- In general, central neuraxial block is safe.



Common Side Effects and Complications of Central Neuraxial Block:

- **Very common and common side effects**
 - **may happen one in every 10 to 100 cases:**
- Self limiting headache
- Self limiting back pain
- Transient difficulty in passing urine
- Itching associated with morphine



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.

Uncommon Side Effects and Complications of Central Neuraxial Block:

- **Rare or very rare complications**
 - may happen one in every 10,000 to 100,000 cases
- Spinal or epidural blood clot
- Epidural abscess and infection
- Nerve damage and paralysis
- Local anaesthetic toxicity
- 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.

Our perioperative team will take good care of you.
We wish you a very smooth and successful operation!

