

Laparoscopic abdominal surgery

Laparoscopic surgery is a minimally invasive abdominal procedure conducted under general anaesthesia.

General anaesthesia involves a combination of intravenous (IV) and inhaled medications aimed at maintaining an unconscious state during the surgery.

During a laparoscopy, several small incisions are made, and the abdominal cavity is filled with carbon dioxide to aid the operation. The procedure is conducted using a fibre-optic camera and specialized instruments.

Generally a laparoscopic surgery is known to be less painful compared to a open abdominal surgery.

To prepare for theatre

- Avoid alcohol, smoking, or recreational drugs for at least 24 hours before the procedure.

- It's important to fast before surgery:



Have a light meal or milk-containing products no later than 6 hours before the procedure.



Only clear fluids (water, black coffee or tea, clear apple juice, or clear energy drinks) can be consumed up to 2 hours before the procedure.

- Bring your chronic medications (including herbal supplements) in their original packaging or a copy of the most recent prescription to the hospital. The anaesthetist will determine which medications can be taken on the day of the procedure.
- The anaesthetist will see you in the ward before the surgery. If this is not possible (for example late admission or unforeseen circumstances), the consultation will take place in the theatre reception area.
- A preoperative discussion regarding the pain management plan will be conducted with you. This involves a combination of oral and intravenous medications. If a patient-controlled analgesia (PCA) pump is prescribed, it will be explained before the operation. Your anaesthetist will also explain the use of regional anaesthesia or nerve block as components of your pain management plan.

During the procedure

- The anaesthetist will be in theatre to monitor your safety.
- Monitoring equipment, such as heart rate, blood pressure, and oxygen saturation monitors, will be attached.



Dr Karin Strauss

- Intravenous drips and specialized lines:
 - An intravenous drip will be inserted.
 - Additional monitoring, including an intra-arterial or a central venous line, may be necessary based on your chronic medical conditions or the surgical requirements. This will be discussed with you beforehand.
 - An intra-arterial line is a monitored dripline inserted into an artery before or after induction of anaesthesia to monitor blood pressure during the surgery.
 - A central venous line is a long dripline inserted in the neck or chest wall. Inserted via sonar guidance and sterile techniques, it carries associated risks for example vein damage, bleeding or swelling, infection, and pneumothorax (lung puncture that might require chest drain insertion). These complications are rare.
- Under general anaesthesia, patients do not breathe on their own, requiring the anaesthetist to ensure sufficient oxygen intake. A breathing tube will be inserted into your throat and removed once you are awake. This may result in a temporary sore throat.
- Pain relief medication will be provided to ensure your comfort.
- Following the surgery, the excess carbon dioxide used for abdominal insufflation is removed before the abdomen is closed. In some cases, particularly with upper abdominal surgery (for example laparoscopic gallbladder removal), the remaining carbon dioxide may irritate the diaphragm muscle, leading to shoulder pain. This discomfort is expected to diminish within the initial 24 hours.

After the procedure

After surgery, you will be transferred to the recovery room. There, a sister will monitor you for 20 to 30 minutes.

It's common to experience drowsiness or nausea in the recovery room, which will be effectively managed. Additional pain relief can be administered.

Postoperative shivering is common.

Complications of general anaesthesia

Common (1 in 10 – 100)

- Nausea and vomiting
- Itchiness
- Shivering
- Thirst
- Sore throat
- Temporary memory loss (mainly from 60's)
- Minor lip/tongue injury
- Headache
- Bruising at the injection site
- Dizziness
- Transient low blood pressure
- Breathing difficulties, upper airway obstruction

Uncommon (1 in 100 to 1 000)

- Minor nerve injury

Rare (1 in 1 000 and 10 000)

- Allergic reactions
- Worsening of existing medical condition
- Leaking of stomach content into lungs (aspiration)
- Peripheral nerve damage that is permanent
- Corneal abrasions
- Damage to teeth requiring treatment

Very rare (1 in 10 000 – 100 000)

- Serious allergic reactions
- Heart attack or stroke
- Blood clots in legs
- Brain damage
- Awareness during anaesthesia
- Death