

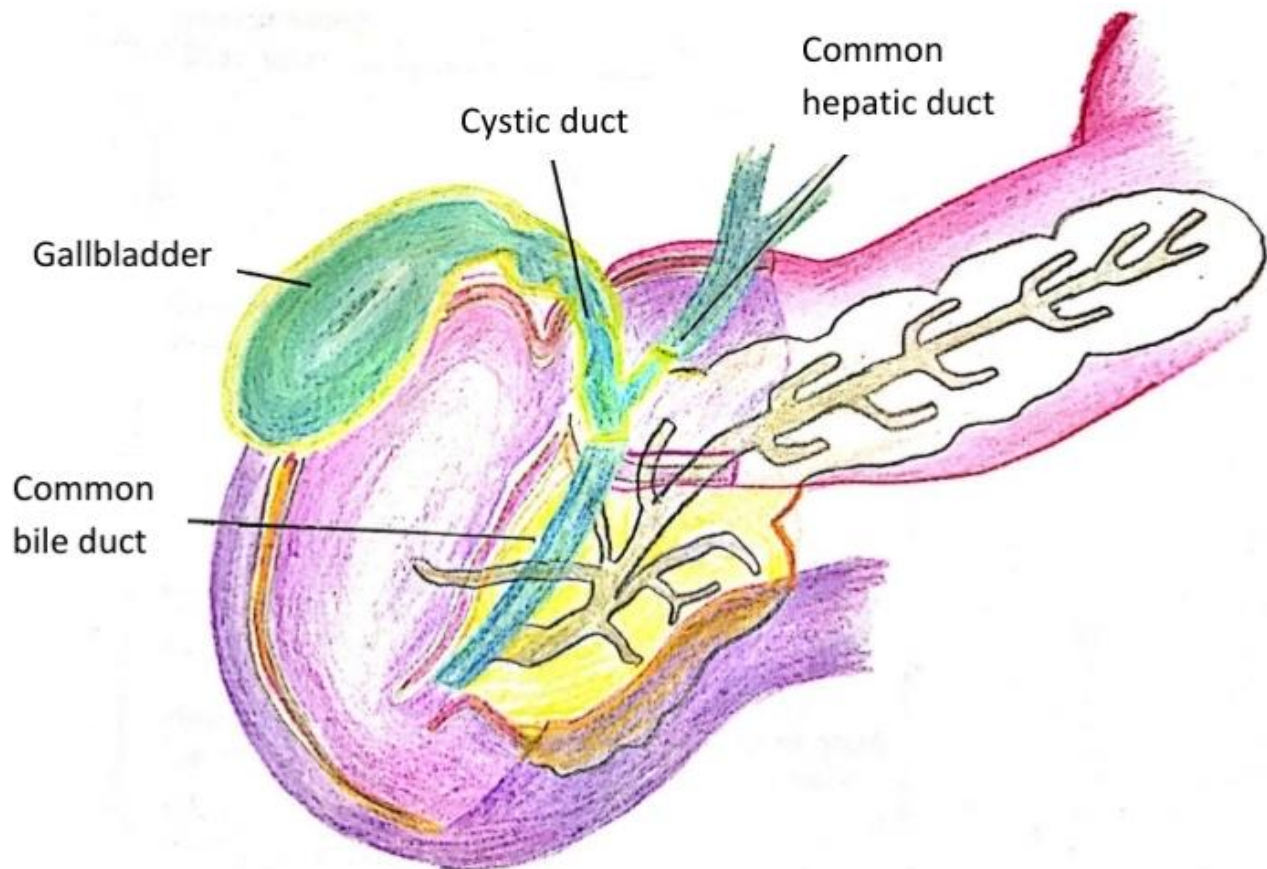
Laparoscopic Cholecystectomy

Information and advice for
patients

CSTH professorial surgical unit

What is the gallbladder?

- The gallbladder is a small pear shaped sac that lies under side of the liver.
- It stores and concentrates bile which is secreted into small intestines to help in digestion of food.



What are the abnormal conditions related to the gallbladder?

Small, hard deposits (gallstones) can form in the gallbladder.

Several conditions (stagnation of bile, increased cholesterol level, increased breakdown of blood cells in some blood disorders) can cause formation of the stones. Gallstones can cause health problems in a group of patients including:

- Symptoms (abdominal pain radiating to the back or right shoulder and indigestion)
- Inflammation of gallbladder (cholecystitis)
- Blockage of bile duct by the gallstones (produces yellowish discolouration of eyes, tea coloured urine, pale stools and itching)
- Inflammation of bile duct (cholangitis) following blockage (produces fever with chills and severe abdominal pain in addition to above symptoms)
- Inflammation of pancreas (pancreatitis) due to gallstones

In addition, gallbladder can develop polyps and very rarely cancer.

Who needs the removal of gallbladder?

Removal of the gallbladder is required when you have gallstones with any of above mentioned health problems, gallbladder polyp or cancer.

Gallstones without health problems, generally do not require treatment.

Surgical removal of the gallbladder is the most effective method of treatment. Your gallbladder is not an essential organ. Even if it is removed, bile flows to your intestines directly from your liver and digestion continues as normal.

How is the surgery performed?

Two types of surgical procedures: laparoscopic surgery and open surgery.

➤ Laparoscopic cholecystectomy

This is the procedure of choice for gallbladder removal except for gallbladder cancer.

This is a keyhole surgery where very small incisions are made on abdominal wall through which the surgical instruments and camera (scope) are inserted to remove the gallbladder.

This is performed under general anaesthesia (Medications are given to put you in to a deep sleep). You won't feel pain during the operation.

A scope will be passed into the abdomen through a small hole which made on the abdominal wall. Carbon dioxide gas will be used to lift the abdominal wall from inside structures to have a proper view. Surgical instruments which are used in surgery will be inserted through three other small holes.

Blood supply to the gallbladder will be ceased before separating the gallbladder from bile duct. Separated gallbladder will be removed through a small hole made previously on the abdominal wall.

Once the gallbladder is removed, all the instruments which was put inside the abdomen will be taken out. The gallbladder will be sent for histologic examination.

Examination of the bile duct for gallstones is required sometimes during the surgery. An x-ray will be taken after injecting a contrast into the bile duct.

➤ **Open cholecystectomy**

This is usually performed when the laparoscopic procedure is difficult to proceed or in suspected gallbladder cancer. The gallbladder is removed through an incision on the right side under the rib cage.

What are the benefits of surgery?

Surgery will prevent further attacks of pain. Because 50% of symptomatic patients will develop further attacks within 1 year and 95% will develop them within 5 years.

Significant proportion (about 4% per year) will develop above mentioned complications which could be fatal.

Compared to open surgery, laparoscopic surgery will have reduced post-operative pain, duration of hospital stay and surgical scar and earlier return to daily activities.

What are the complications of surgery?

Laparoscopic cholecystectomy is a commonly performed and generally safe operation. However, all surgeries carry an element of risk.

In order to make an informed decision, you need to be aware of the possible complications which are either related to surgery or to anesthesia.

➤ Specific complications

- Laparoscopic cholecystectomy has a slightly higher (0.4%) risk of bile duct injury compared to open surgery (0.2%)
- Need for conversion to open surgery if difficult to proceed (5%)
- Injury to nearby structures such as small intestine and liver
- Bile leak due to stump blowout which had been put during cholecystectomy to close the remaining part of the bile duct

➤ **General complications**

- Bleeding during or after operation
- Surgical site infection: Prophylactic antibiotics are given at the time of surgery to reduce the risk.
- Cardiac and respiratory complications are rare and generally occur in patients with pre-existing medical problems.

Preparing for your surgery

You will be asked for details of your medical history, allergies and will be carried out relevant examination and investigations at the clinic prior to surgery. Make sure that you bring the records of your other clinic follow ups, medications and previous surgical notes, if any. This procedure involves the use of anaesthesia. You will see an anaesthetist before your procedure.

Some of your routine medications may affect the surgical procedure and anaesthesia. Therefore, you will be advised about the alteration of your routine medications.

Once the preoperative assessment is satisfactory, a routine date for surgery or cholecystectomy will be done on the date of the admission. You will be asked to provide an informed written consent.

You will be admitted one day prior to hospital for further preparation if it is a planned surgery. You are supposed to bring white colour, loose-fitting and comfortable clothes for the surgery.

You will be asked to stay fasting for solids for 6 hours and clear fluid for 2 hours prior to surgery.

The day of your surgery

You need to be dressed up with white color cloths and will be taken to the theatre. After completing your planned surgery, you will be taken to the recovery room. Then you will be transferred back to the ward after confirming your vital parameters are satisfactory and you are adequately conscious as the surgery is performed under general anaesthesia.

Your recovery

You will be monitored closely for post-operative complications.

You will be provided pain medications accordingly to keep you comfortable and pain free. You can take sips of water at the beginning, and then increase from fluids to solids until you are able to manage a normal diet.

Your discharge and follow up

You will be discharged on the next day unless there is any deviation from your recovery. Advices on surgical site care, pain medication and follow up plan will be given prior to discharge.

Do not soak the wound dressing for first 5 days. Then remove the wound dressing and you may keep the surgical site open. If dissolving stitches are applied, there is no need to remove the stitches.

You should seek medical advice if you develop undue abdominal pain; redness, swelling, discharge or increasing pain of the wound; fever or repeated vomiting.

Resuming normal activity and returning to work

It is safe to attend light activities of daily living depending on your comfort at home. However, you should not drive, return to work, drink alcohol, operate machinery or be responsible for small children in the first 48 hours after your operation, even if you feel fine. You should be able to return to office work by one to two weeks.

Contacts

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