



Laparoscopic cholecystectomy

What is the gall bladder?

The gallbladder is a small pear sized organ that stores bile. Bile is necessary for the digestion of fatty food. The bile duct is a tube that carries bile from the liver to the bowel, and attached to this is the gallbladder. However, the gallbladder is not an essential organ and you are able to continue to digest fatty food without it, though about half the people who have their gallbladder removed have some indigestion or bloating from time to time.

What are gallstones?

10-15% of adults develop gallstones. Gallstones form in the gallbladder, most commonly due to an imbalance in the chemical constituents of bile.

What problems do gallstones cause?

Gallstones are common and often cause no problems. However in some people they can cause:

- **Pain** – This arises if gallstones block the outlet from the gallbladder. It can last minutes to hours and resolve spontaneously (biliary colic). It may however last longer, with inflammation of the gallbladder (cholecystitis), often requiring antibiotics
- **Pancreatitis** – Inflammation of the pancreas gland can occur if a stone passes down the bile duct and irritates the opening to the pancreas
- **Jaundice** – This is a condition whereby a patient turns a shade of yellow, often most noticeable in the white of the eyes. It is due to a stone moving from the gallbladder into the bile duct, and partially blocking the flow of bile into the bowel. If this occurs, your urine may become darker, your faeces lighter, and your skin may itch

How are gallstones treated?

A low fat diet may help reduce the pain due to gallstones. There are no drugs available that are able to reduce the symptoms arising from gallstones by dissolving them. The best method to remove the symptoms arising from gallstones is to perform an operation to remove the gallbladder. If only the stones are removed, leaving the gallbladder in place, the stones will re-form.

What does the operation involve?

Both the gallbladder and stones are removed. This can be done as a laparoscopic (keyhole) procedure under general anaesthetic (you are completely asleep), through four small holes, each 1-2cm in length, made in the tummy wall. Occasionally it is not possible to complete the operation by the keyhole method and a bigger incision (cut) is needed. The risk of the keyhole operation being converted to an open operation is about 5%.

The benefits of surgery

The gallbladder is not an essential organ, and even today, only surgical removal of the gallbladder (cholecystectomy) guarantees that the patient will not suffer a recurrence of gallstones. This is one of the most common surgical procedures performed on women and can even be performed on pregnant women with low risk to the baby and mother. The primary advantages of surgical removal of the gallbladder over non surgical treatment are both the elimination of gallstones the prevention of gallbladder cancer and the freedom from pain which can lead to pancreatitis.

What are the advantages of performing the procedure laparoscopically?

- Rather than a five to seven inch incision, the operation requires only four small openings in the abdomen
- Patients usually have minimal post-operative pain
- Patients usually experience faster recovery than open gallbladder surgery patients
- Most patients go home within one day and enjoy a quicker return to normal activities

Are you a candidate for laparoscopic gall bladder removal?

Although there are many advantages to laparoscopy, the procedure may not be appropriate for some patients who have had previous upper abdominal surgery or who have some pre-existing medical conditions. A thorough medical evaluation by your personal physician, in consultation with a surgeon trained in laparoscopy, can determine if laparoscopic gallbladder removal is an appropriate procedure for you.

What are the possible complications?

The operation is usually straightforward and you will either be able to go home on the day of surgery or the following day. There are however risks with any operation and although they are rare, these are detailed below:

- **Shoulder pain** – This often happens after keyhole surgery, but tends to last less than 24-hours. It is due to the gas used to inflate the inside of the abdomen during the operation.
- **Infection** – This can occur in the wound(s), in the lungs, at the site of the intravenous drip, or at the position where the gallbladder was located.

- **Bleeding** – This can occur during or after the operation, as with any surgery.
- **Bile leak** – Bile can leak from tiny accessory ducts or the main bile duct after the operation. This may settle spontaneously, but in some cases may require further intervention.
- **Damage to surrounding structures** – Rarely, nearby structures can be damaged inadvertently during this operation, as with any operation. These structures include the bile duct, bowel, and the blood supply to the liver. A bile duct injury is potentially very serious but is rare, occurring in approximately 3 in every 1000 operations.
- **Deep vein thrombosis (DVT)/Pulmonary embolus (PE)** – Clots forming in the veins can occur with any surgery, but the risk is increased with laparoscopic surgery. We give you a blood thinning agent to decrease this risk and ask you to wear compression stockings.
- **Retained stone** – Before or during the operation a stone can move into the bile duct. This often causes no problem and passes into the bowel. However, if it does not pass, a second procedure may be necessary to remove it.

What about pain after the operation?

Keyhole surgery usually involves less pain than open surgery. Several methods are used to reduce the pain that may be experienced:

- Injecting the wounds with local anaesthetic while you are still asleep
- Pain killing tablets are given to you before the operation which will continue to work after the operation, or, with your permission, long-lasting pain relief suppositories are given while you are still asleep
- Pain relief tablets are given to you after the operation, as needed

- You are given pain relief tablets to take home

Is there any after care for the wounds?

The four small holes are usually stitched with dissolvable stitches and so do not need to be removed. If stitches are used, each small hole should be kept covered with a shower-proof dressing and be kept dry for one week. As long as you have either a shower-proof dressing in place you will be able to shower immediately after the operation.

What about the recovery?

You may eat and drink as soon as you want to following surgery. After assessment by a nurse and/or the surgeon, you may be able to go home in the late afternoon or early evening. After keyhole surgery, you are likely to feel tired for a day or two. Full recovery takes about 2 weeks. With open surgery, the average is 4 weeks.

Bowels

It is quite usual for the bowels not to open for a day or two following surgery. Should you feel uncomfortable after this, consult your GP.

Returning to work

You will be able to go back to work fairly quickly depending upon how physically demanding your job is. The average is 2 weeks after keyhole surgery and 4 weeks after open surgery.

Driving

You may drive as soon as you are able to tolerate the seat belt and make an emergency stop without causing discomfort – usually after 1-2 weeks following keyhole surgery and 2-3 weeks following open surgery.

Check-ups

The vast majority of patients recover quickly after this type of surgery and do not have to be seen again. Should there be specific reasons to be seen after the surgery, this will be arranged before discharge. If any problems arise once you are home, your GP will usually arrange for you to be seen again.