



Laparoscopic Cholecystectomy

What is the gall bladder?

The gallbladder is a small pear-shaped 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. Approximately half of people who have their gallbladder removed will occasionally experience some indigestion or bloating.

What are gallstones?

10–15% of adults develop gallstones with higher rates in older individuals and certain patient groups. 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 due to the presence of stones or if gallstones block the outlet from the gallbladder. It can last from 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. The best method to relieve symptoms is to undergo an operation to remove the gallbladder. If only the stones are removed, leaving the gallbladder in place, the stones will re-form. Medications can partially relieve symptoms in some patients, but these are usually reserved for patients who are unfit for surgery as cholecystectomy is a much more effective treatment for gallstone disease.

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 via 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 surgical removal of the gallbladder (cholecystectomy) is the most effective available treatment to ensure that the patient will not suffer a recurrence of gallstone disease. This is one of the most common surgical procedures performed in the United Kingdom. The primary advantages of surgical removal of the gallbladder over non-

surgical treatment are the elimination of gallstones, and the freedom from pain and reduced risk of 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. You may be asked to undertake a low calorie diet prior to surgery.

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 location of the gallbladder
- **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 on its own, 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 three in every 1000 operations
- **Deep vein thrombosis (DVT)/pulmonary embolism (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
- **Loose bowel motions** – Some patients can develop looser bowel motions following cholecystectomy. This usually resolves spontaneously in the majority of cases but some patients require dietary modification or medications to treat this in a small number of patients.

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 relief 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 aftercare 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 showerproof dressing and be kept dry for one week. As long as you have a showerproof 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. We would encourage you to perform gentle exercise such as walking as soon as you feel comfortable after surgery. Full recovery takes about two weeks. You should avoid heavy lifting or strenuous physical activity for around four weeks. With open surgery, the average is four 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 two weeks after keyhole surgery and four weeks after open surgery.

Driving

You may drive as soon as you are able to wear the seat belt and make an emergency stop without causing discomfort – usually after one - two weeks following keyhole surgery and two - three 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.

Please use the space below to write down any questions you may have and bring this with you to your next appointment.

Heartlands Hospital

Upper GI secretaries **Tel:** 01214242430

Surgical assessment unit (contact if issues following procedure) **Tel:** **01214240898**

Solihull Hospital

Ward 12 (General Surgery ward): **01214244222**

Queen Elizabeth Hospital Birmingham

Mindelsohn Way, Edgbaston

Birmingham, B15 2GW

Ambulatory Care: 0121 371 3120

Liver consultants contact details

Ward 726 (HPB Unit) **Tel:** 0121 371 7303/7305/7307

Liver Pre-screening **Tel:** 0121 371 5651

Liver Outpatients department 0121 371 4414

Upper GI consultants contact details

Upper GI Unit Secretaries **Tel:** 0121 371 5881/5883/5884

Ward 305 (Upper GI Ward) **Tel:** 0121 371 3050

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