

Laparoscopic Cholecystectomy

Brief description:

- This is an operation to remove the gall bladder using key-hole surgical techniques.
- Here, we explain some of the aims, benefits, risks and alternatives to this procedure (operation/treatment). We want you to be informed about your choices to help you to be fully involved in making any decisions.
- Please ask about anything you do not fully understand or wish to have explained in more detail.

Name of procedure: Laparoscopic Cholecystectomy

What is the Gall Bladder?

Your liver has many functions, one of which is to produce a substance called bile. This green liquid drains from the liver to the intestine via the bile duct. The gall bladder is a small reservoir attached to the side of the bile duct where bile can be stored and concentrated between meals. When we eat, particularly fatty foods, the gall bladder contracts and empties extra bile into the bile duct and then into the intestine to mix with the food. Bile has many functions, one of which is to allow us to absorb fat. The gall bladder sits just under the liver, which is in the right upper part of the abdomen, just under the ribs.

Why might I need my Gall Bladder removed?

Usually this is because it is giving you pain due to gall stones. These small stones form in the gall bladder and can cause a range of problems including pain, jaundice, infection and pancreatitis. They are very common but do not always cause symptoms. Gall stones that are not causing trouble can be left alone.

Before your procedure

- You may need to attend a pre-admission clinic, where you will be seen by a member of the team who will be looking after you in hospital. If needed the anaesthetist will review you during this clinic.
- At this clinic, we shall ask you for details of your medical history and carry out a physical examination. We will arrange any investigations and tests you require. This is a good opportunity for you to ask us any questions about the procedure, but please feel free to discuss any concerns you might have at any time.
- You will be asked if you are taking any tablets or other types of medication - these might be ones prescribed by a doctor or bought over the counter in a pharmacy. It helps us if you bring details with you of anything you are taking (for example: bring the packaging with you).
- The majority of gallbladder operations require you to stay in hospital for one night.
- The anaesthetist will review your medical history. In particular, you will be asked about your medications and any health problems that you have. They will also ask you about previous anaesthetics you have had and whether you had any problems with these (for example, nausea). You will be asked if you are allergic to anything. They will also want to know about your teeth, whether you wear dentures, have caps or a plate. Your anaesthetist may examine your heart and lungs.
- Occasionally you may be prescribed medication that you will be given shortly before your operation – this is known as ‘the pre-medication’ or 'pre-med'. They relax you and may send you to sleep

During the procedure (operation) itself

- Before your procedure, you will be given a general anaesthetic. This is usually performed by giving you an injection of medication intravenously (i.e. into a vein) through a small plastic cannula (commonly known as ‘a drip’), placed usually in your arm or hand.
- While you are unconscious and unaware your anaesthetist remains with you at all times, monitoring your condition and controlling your anaesthetic. At the end of the operation, your anaesthetist will reverse the anaesthetic and you will regain awareness and consciousness in the recovery room, or as you leave the operating theatre.
- Four small holes are made in the abdominal wall. The largest (1cm) is under your umbilicus and the other three are under your rib cage. Through these, we inflate your tummy up with carbon dioxide gas which is completely harmless.

- We then use special long instruments to free up the gall bladder with its stones from underneath the liver and it is completely removed. This is all visualised on a monitor by a camera inserted through one of the four key-holes. In addition a special X-ray is performed during the operation called a cholangiogram. This is used to check for stones in the bile duct. Please notify the surgical team if you think there is a chance you could be pregnant.
- At the end of the operation, before you wake up, all the puncture sites in your abdomen will be treated with local anaesthetic so that when you first wake up there should be very little pain. Some patients have some discomfort in their shoulders, but this wears off quite quickly.
- The cuts we have made will be covered with small waterproof dressings.

After the procedure

- You will wake up in the recovery room after your operation. You might have an oxygen mask on your face to help you breathe. You might also wake up feeling sleepy.
- After this procedure, most people will have a small, plastic tube in one of the veins of their arm. This might be attached to a bag of fluid (called a drip), which feeds your body with fluid until you are well enough to eat and drink by yourself.
- While you are in the recovery room, a nurse will check your pulse and blood pressure regularly. When you are well enough to be moved, you will be taken to a ward.
- Sometimes, people feel sick after an operation, especially after a general anaesthetic, and might vomit. If you feel sick, please tell a nurse and you will be offered medicine to make you more comfortable.

Later on after the procedure:

- **Eating and drinking:** You will be able to drink immediately after the operation and if this is all right and you do not feel sick, then you will be able to eat something.
- **Getting around and about:** After this procedure, you can get up and about as soon as you feel comfortable.
- **When you can leave hospital:** You will be reviewed by the doctors and nursing staff on the ward after your operation. You will be allowed home after you have had something to drink and eat. We will also check that you are not feeling sick and have been able to pass urine. You will be given a supply of simple painkillers to take home. We recommend that you take these regularly for the first couple of days at home after your operation. You may feel discomfort for seven to ten days after, but simple painkillers taken by mouth are usually all that people need to enable them to be fully mobile at home. An appointment will usually be made for you to be seen in the surgeon's rooms three to four weeks after surgery. If this is not made please call the rooms in the next business day.
- **When you can resume normal activities including work:** We expect you to return to normal activities in a matter of days following your procedure. You can drive again when you can comfortably make an emergency stop (generally about seven days, but must be checked in stationary car first!). Other more vigorous activities can be resumed after two weeks as you feel comfortable.
- **What happens with my dressings?** All the wounds are closed with dissolvable stitches under the skin and therefore nothing needs to be done to these after the operation. Each of the wounds is covered with a small waterproof dressing which we ask you to keep intact for five days if possible. It is shower proof but will come off in a hot bath. We suggest that you get into a hot bath on day five and gently remove the dressings and leave the wound open to the air. If they rub on your clothing you may find it more comfortable to put a small

Elastoplast dressing over each wound. If you have any worries about your wounds, you should contact your GP or ring the surgeon's rooms.

How is this different from the traditional operation for Gall Bladder problems?

The actual operation is the same. The only thing that differs is the way in which we get to the gall bladder to remove it. Traditionally, we make a small cut underneath the ribs (10-15cm long). This takes longer to heal than the four little holes of keyhole surgery and the recovery is slower.

Is there a guarantee that keyhole surgery can be done?

No, there is no guarantee that the operation can be completed by keyhole surgery. If there is some technical difficulty with removing the gall bladder then a traditional cut would be needed to remove it. The time in hospital would be a little longer (about three to five days) and the recovery at home would be between six to eight weeks. The risk of having to convert to open surgery is small, about 1-3%.

Is there an alternative to surgery for gallstones?

Unfortunately no alternative exists. The only successful treatment is to remove the gall bladder and gall stones completely. The results of this operation are very good and most patients can then return to eating a normal diet.

Can I manage without my Gall Bladder?

Yes. The gall bladder is a reservoir for bile and we are able to manage without it. Rarely patients notice that their bowels are a little looser than before the operation but this is uncommon. You will be able to eat a normal diet after your operation, assuming that there is nothing else wrong with you.

Are there any risks?

Removal of the gallbladder is a very common and a very safe procedure. However, like all operations there are small risks involved. We believe that it is very important that you are fully aware of these risks as this is important in your understanding of what the operation involves. The possible complications below are particularly important as they can mean that you need to stay in hospital for longer and that further operations or procedures are required.

- **Bleeding** – this very rarely occurs after any type of operation. Your pulse and blood pressure are closely monitored after your operation as this is the best way of detecting this potential problem. If bleeding is thought to be happening, you will require a further operation to stop it. This can usually be done through the same keyhole scars as your first operation.
- **Infection** – this can affect your scars ('wound infection') or can occur inside your tummy. Again this can happen after any type of abdominal operation. Simple wound infections can be easily treated with a short course of antibiotics. Infection inside your tummy will also usually settle with antibiotics. Occasionally, it may be necessary to drain off infected fluid from inside your tummy. This is most frequently performed under a local anaesthetic by our colleagues in the X ray department.
- **Leakage of bile** – When we remove the gallbladder, we put special clips on the tube that connects the gallbladder to the main bile duct draining the liver. Despite this, sometimes bile fluid leaks out. If this does occur, we have a number of different ways of dealing with this. Sometimes the fluid can simply be drained off by our colleagues in the X-ray department. In other cases we will perform a special test called an ERCP. This is a procedure where you are made very sleepy (using sedative injections) and a special flexible camera ('an endoscope') is passed down your gullet and stomach to allow the doctor to see the lower end of your bile

duct. A special dye allows us to see where the bile has leaked from. If the bile is leaking a plastic tube (called a 'stent') will be inserted into your bile duct to allow the bile to drain internally. This stent is usually removed six to eight weeks after it is put in. Rarely, if a patient develops a bile leak, an operation is required to drain the bile and wash out the inside of the abdominal cavity. This can usually be performed as a keyhole procedure.

- **Injury to Bile Duct** – Injury to the main bile duct draining bile from the liver to your intestine is a rare (1 per 800 cases) complication of gallbladder surgery. We use a number of techniques during the operation to prevent this happening. If an injury occurs, it requires immediate repair so that you recover smoothly from the operation. Repair of this injury requires an open cut to be made under your ribs.
- **Injury to intestine, bowel and blood vessels** – Injury to these structures can, very rarely, occur during the insertion of the keyhole instruments and during the freeing up of the gallbladder particularly if it is very inflamed. Usually this injury can be seen and repaired at the time of the operation, but occasionally may only become clear in the early postoperative period. If we suspect that you may have sustained such an injury, a further operation will be required. This will be performed as a keyhole operation but will need conversion to an open operation if necessary.
- **Blood clots in the legs (DVT)** – Before your operation, you will be fitted with some stockings that you wear during your operation to help prevent blood clots developing in the veins of your legs. You may also be given an injection in the skin of your tummy - this is a blood thinning medicine (Heparin) that also helps prevent blood clots.

What are the risks of general anaesthesia?

In modern anaesthesia, serious problems are uncommon. Risks cannot be removed completely, but modern equipment, training and drugs have made it a much safer procedure in recent years. The risk to you as an individual will depend on; whether you have any other illness, personal factors (such as smoking or being overweight) or surgery which is complicated, long or done in an emergency. Please discuss any pre-existing medical condition with your anaesthetist.

Very common and common side effects (1 in 10 or 1 in 100 people)

Feeling sick and vomiting after surgery, sore throat, dizziness, blurred vision, headache, itching, aches, pains and backache, pain during injection of drugs, bruising and soreness, confusion or memory loss.

Uncommon side effects and complications (1 in 1000 people)

Chest infection, bladder problems, muscle pains, slow breathing (depressed respiration), damage to teeth, lips or tongue, an existing medical condition getting worse, awareness (becoming conscious during your operation).

Rare or very rare complications (1 in 10,000 or 1 in 100,000)

Damage to the eyes, serious allergy to drugs, nerve damage, death, equipment failure.

Information and support

If you have any questions or anxieties about your procedure, do not hesitate to discuss these with your surgeon. Please let us know if we need to cancel any appointments for any reason (including illness) so your 'slot' can be used by others.