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Laparoscopic cholecystectomy

Aintree University Hospital NHS
NHS Foundation Trust

Department of General Surgery
Lower Lane
Liverpool L9 7AL
Tel:0151-525-5980

What are gallstones?

Gallstones are 'stones' that form in the gallbladder. They are quite common in people who eat a high fat diet.

Your doctor has advised that you need an operation to remove your gallbladder, however, it is your decision to go ahead with treatment or not.

This document should provide enough information about the risks and benefits of surgery so that you can make an informed choice.

If you have any further questions you should ask your consultant or member of healthcare team.

How do gallstones happen?

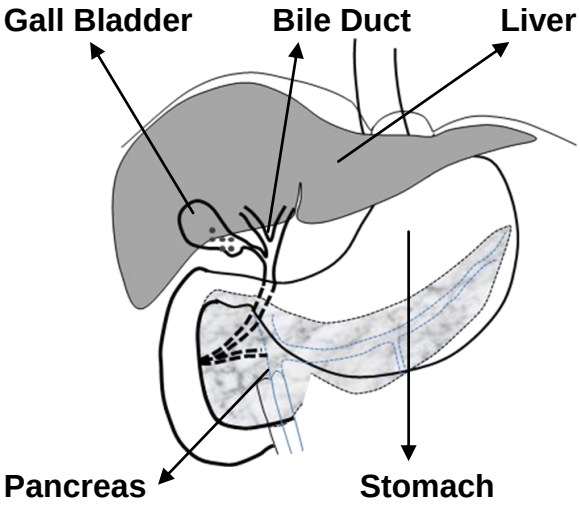
The gallbladder is a small pear shaped organ resting under the liver (under your right ribs).

Its main purpose is to collect and store bile (digestive juices produced by the liver).

When you eat, bile is released from the gallbladder, aiding digestion. Stones can develop in the bile, particularly if you have a high fat diet.

The stones may block the flow of bile out of the gallbladder, causing it to swell and resulting in a sharp abdominal pain, vomiting, indigestion and, occasionally fever.

If the stones move out of the gallbladder and block the common bile duct they can cause jaundice (yellowing of the skin or eyes), severe infection of the bile ducts (cholangitis) or inflammation of the pancreas (acute pancreatitis).
These complications can be serious and may lead to a hospital admission or even death.



What are the benefits of surgery?

You should be free from pain and able to eat a normal diet.

Surgery should also prevent the serious complications that gallstones can cause.

Are there any alternatives?

There are no other recommended effective, safe alternatives to surgery.

Although other methods have been used, such as, drugs or lithotripsy (use of shock waves or ultrasonic waves to crush the gallstones), they have not been very successful.

Antibiotics can be used to treat any infections of the gallbladder and a low fat diet may help to prevent attacks of pain, however, these alternatives do not treat this condition and symptoms are likely to return.

The other alternative is to have no treatment at all.

The risk of not treating a diseased gallbladder is repeated attacks of pain and inflammation that may lead to life threatening infections and complications.

What does the operation involve?

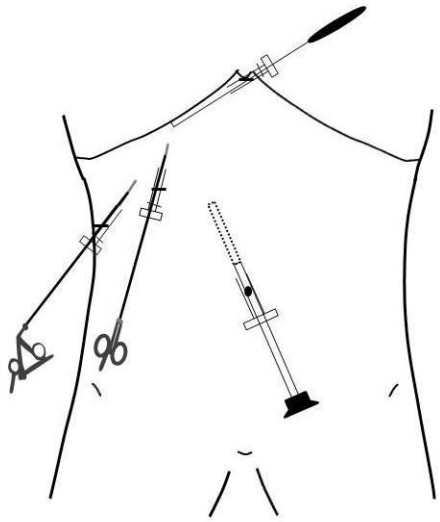
The procedure is performed under general anaesthetic.

Your surgeon will free up the gallbladder duct (cystic duct) and artery.

They may take an x-ray where they inject a dye into the common bile duct to see if there are any stones in the common bile duct (cholangiogram).

Your surgeon will then separate the gallbladder and remove it.

If the x-ray shows stones in the common bile duct your surgeon may remove them with a special scope during the operation, or may choose to have them removed later through a second minimally invasive procedure, or convert to an open operation in order to remove all the stones during the operation.



Laparoscopic (Keyhole) surgery

Keyhole surgery is the preferred technique as it is associated with less pain, less scarring and a quicker recovery rate.

A small cut is made in your abdomen near your belly-button.

A laparoscope (tiny telescope) connects to a special camera and is inserted to allow the surgeon a magnified view of your internal organs on a television screen.

Your abdominal cavity will be inflated with gas (carbon dioxide).

Several other small cuts will be made in your abdomen so that tubes (ports) can be inserted to allow the surgeon to place instruments through the ports in order to delicately separate the gallbladder from its surrounding structures and then remove it through one of the small cuts. The cuts will then be closed up.

Around 1 in 20 people will not be able to have the operation using this technique.

Factors that may increase the possibility of this occurring may include obesity, a history previous abdominal surgery causing dense scar tissue, inability to visualise organs, bleeding problems during the operation or if stones are identified in the common bile duct.

Open surgery

The operation is the same but it is performed through a single, larger cut, usually just under the right ribcage.

What can I do to help make the operation a success?

Lifestyle changes

If you smoke, try to stop smoking now.

There is strong evidence that stopping smoking several weeks before general anaesthetic reduces your risk of getting complications.

If you are overweight, losing weight will also reduce our risk of developing complications.

If you need help to stop smoking or lose weight, ask a member of the healthcare team or your GP for advice.

Medication

You should continue your normal medication unless you are told otherwise.

You should inform your surgeon if you take **warfarin** or **clopidogrel**.

Follow your surgeon's advice about stopping this medication before your operation.

What complications can occur?

The healthcare team will try and make your operation as safe as possible.

However, some complications can happen, some of these can be serious and can even cause death.

You should ask your doctor if there is anything you don't understand.

Your doctor may be able to tell you if your risk of complications is higher or lower for you.

The complications fall into three categories.

1. Complications from anaesthesia
2. General complications of any operation
3. Specific complications for this operation

1 Complications from anaesthesia

Your anaesthetist will be able to discuss with you the possible complications of having an anaesthetic.

2 General complications of any operation

- **Pain –** It is normal to have pain after surgery.

  The healthcare team will try and reduce your pain by giving you medication to control it.

  It is important you take your medication as advised so that you can move about and cough freely.

  After a laparoscopy, it is common to feel bloated and to have pain in your shoulders because a small amount of gas may be left under your diaphragm.

  Your body will usually absorb the gas naturally over the next 24 hours, which will ease the symptoms.

  You may also notice that you have a slightly sore throat.

  This is due to the 'breathing' tube which is placed in your throat during surgery and should subside in a day or two.

- **Bleeding –** During or after surgery. This occasionally requires blood transfusions or further surgery.
- **Infection in the surgical wound –** This may require treatment with antibiotics or occasionally further surgery.
- **Developing a hernia in the scar –** If you have open surgery, the deep muscle layers may fail to heal causing an incisional hernia.

  This appears as a bulge or rupture and is it causes problems may require a further operation.

- **Blood clots –** In the legs (deep vein thrombosis). This can occasionally move through the bloodstream to the lungs causing a pulmonary embolism (PE), making it difficult for you to breathe.

  The nurses will encourage you to mobilise soon after surgery and may give you injections to reduce the risk of blood clots.

3 Specific complications for this operation

A Laparoscopic complications

- **Damage to internal organs –** When placing instruments into the abdomen (risk 1 in 1,000).

  The risk is higher in people who have previously had surgery to the abdomen.

  If an injury does happen, you may require open surgery, which involves a much larger cut.

  About 1 in 3 of these injuries is not obvious until after surgery, so if you have been in pain which does not improve each day after surgery, you should let your doctor know.

- **Developing a hernia near one of the cuts used to insert the ports –** (Risk 2 in 10,000).

  Your surgeon will try and reduce this risk by using small ports (less than 10mm in diameter) where possible or, if they need to use larger ports, using deeper stitching techniques to close the cuts.

- **Surgical emphysema –** (Crackling sensation in the skin due to trapped gas), which settles quickly and is not serious.

B Cholecystectomy complications

- **Leaking of bile or stones –** Usually your surgeon can deal with this at the time of surgery, but you may need another operation.

- **Retained stones –** In the common bile duct.

  Your surgeon may remove the stones during surgery or later using a flexible telescope.

- **Diarrhoea –** This can sometimes happen because you no longer have a gallbladder controlling the flow of bile into your intestines.

- **Inflammation –** In the abdomen (peritonitis) due to a collection of bile or blood.

- **Bile duct injury –** (Risk 1 in 500).

  This is potentially serious and may require a further operation to correct the problem.

- **Bowel injury –** (Risk less than 1 in 1000).

  This can happen if the bowel is stuck to the gallbladder.

- **Serious damage to the liver –** Or its associated blood vessels.

  This is rare and may require a further operation to correct the problem.

How soon will I recover?

In hospital

Following your operation you will be transferred to the recovery area and then to the ward.

You should be able to go home later that day or the following day. However, your doctor may recommend that you stay a little longer.

At home

- **Returning to normal daily activities –** After a week or so you should be able to resume most of your normal daily activities.

  It is normal to feel tiered after surgery, so take some rest, two to three times a day and try and get a good night sleep.

  You should avoid heavy lifting and vigorous exercise for at least two weeks.

- **Driving –** You should not drive for at least one week.

  Before driving you should ensure that you can perform a full emergency stop, have the strength and capability to control the car, and be able to respond quickly to any situation that may occur.

  Please be aware that driving whilst unfit may invalidate your insurance.

- **Returning to work –** You can return to work as soon as you feel well enough.

  This will depend on how you are feeling and the type of work you do.

  Typically you will need between two and three weeks off work.

- **Eating –** There are no dietary restrictions following the removal of the gall bladder and you may resume to a normal diet.

  It would be wise to avoid eating fatty food (e.g. cheese, full fat milk, cream, fried foods) for the first week or so, we would encourage eating a healthy well balanced diet at all times.

  It may take a few days before your appetite returns.

  You should start with light frequent meals and then increase at your own pace.

- **Bowels –** You may find it takes three or four days to have normal movement.

  If you have not had a bowel movement in three days following surgery, a mild laxative should help.

  Your local chemist should be able to advise you.

  Alternatively, you may experience some diarrhoea following surgery.

  This should settle within three to four weeks.

  If the diarrhoea is bothersome your local chemist can advise on over-the-counter remedies.

  Remember to drink plenty of fluids so that you don't get dehydrated.

When should I seek advice?

- If you have a discharge of blood or pus from your wounds.
- If you develop a temperature above 38.5C
- Vomiting that continues for more than three days after surgery
- Inability to have a bowel movement after four days
- Persistent pain not relieved with your prescribed painkillers
- Persistent abdominal distension (bloating of your stomach)
- Increasing pain or swelling around your wounds
- Jaundice (yellowing of eyes or skin).

If you require a special edition of this leaflet

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