

Cholecystectomy - Gallbladder removal

Introduction

Surgical removal of the gallbladder is one of the most common operations performed.

The medical term for gallbladder removal is cholecystectomy.

Why does my gallbladder need to be removed?

The gallbladder is a small, pear-shaped pouch in the upper-right part of your abdomen (tummy). It stores bile, which is the digestive fluid produced by the liver that helps to break down fatty foods.

Bile is made from cholesterol, bile salts and waste products. When these substances are out of balance, small, hard stones called gallstones can form. Gallstones often cause no symptoms and, in many cases, remain undetected.

However, in a small number of cases, gallstones can become trapped in a duct (an opening or channel), irritate and inflame the gallbladder, or move out of the gallbladder and into other parts of the body.

This can lead to a range of symptoms, such as:

a sudden intense pain in your abdomen

feeling and being sick

jaundice (yellowing of the skin and the whites of the eyes)

There are several non-surgical ways to break down gallstones, but they are only effective in around less than 1 in 10 cases and are rarely a viable option.

For most people with painful gallstones it is recommended that their gallbladder is removed.

What happens during gallbladder removal surgery?

There are two main ways of removing a gallbladder.

Laparoscopic (keyhole) cholecystectomy

This is the most common type of operation to remove your gallbladder. It involves using a tiny camera and surgical instruments that are inserted through small cuts (incisions) in your abdomen.

Open cholecystectomy

In open cholecystectomy the gallbladder is removed through one large incision in your abdomen. This technique is called open surgery. It is a more invasive operation than keyhole surgery. You need to be in hospital for longer and it takes longer to recover.

Open surgery is now usually only used if there are medical reasons why laparoscopic cholecystectomy cannot be safely performed, or if the surgeon decides that it would be safer to switch to open surgery during the procedure (this is known as conversion).

Both techniques are usually carried out under a general anaesthetic, so the person having the operation is asleep during surgery and will feel no pain.

Recovering from gallbladder removal surgery

It doesn't take long to recover from laparoscopic cholecystectomy. Most people can leave hospital the same day or the next morning.

You can get back to normal activities within two weeks and it should be safe to do strenuous exercise after a month.

It takes much longer to recover from an open cholecystectomy. It may be three to five days before you can leave hospital and it could be six weeks before you are feeling back to normal.

Complications

Both laparoscopic and open cholecystectomies are generally safe procedures with a low risk of complications.

The most common complication is infection at the site of the incision, which happens in around 1 in 15 cases.

Living without a gallbladder

You can lead a perfectly normal life without a gallbladder. The organ can be useful but it's not essential. Your liver will still produce bile to digest food.

However, some people who have had their gallbladder removed have reported symptoms of bloating and diarrhoea after eating fatty or spicy food. If certain foods do trigger symptoms, you may wish to avoid them in the future. Read more about making changes to your diet after gallbladder surgery.

Some people may also experience pain and indigestion as a result of a stone being left inside a bile duct. This will require further surgery to remove the stone.

How a gallbladder removal is performed

Before having your gallbladder removed (cholecystectomy) you will need to attend a pre-assessment appointment a few days before your operation.

The appointment may involve having some blood tests and a general health check to make sure that you are fit for surgery.

It is also a chance for your surgeon to check that you can have a laparoscopic (keyhole) cholecystectomy. If you have developed complications, such as inflammation or gallstones in the bile duct, open surgery may be required.

You can also use your pre-assessment appointment as an opportunity to discuss any concerns or ask any questions about your operation.

To help you recover from your operation and reduce your risk of complications it helps if you are as fit as possible beforehand. As soon as you know you are going to have a cholecystectomy, try to stop smoking if you smoke and eat a healthy diet.

Laparoscopic (keyhole) surgery

Three to four small cuts (each about 1cm or less) are made in your abdomen. One cut will be by the belly button and the others will be on the right side of your abdomen.

Your abdomen is inflated using carbon dioxide gas. This is harmless and makes it easier for your surgeon to see your internal organs.

A laparoscope (a long thin telescope with a tiny light and video camera at the end) is inserted through one of the cuts in your abdomen. This allows your surgeon to view the operation on a video monitor.

Using special surgical instruments, your surgeon will then remove your gallbladder.

Sometimes, if there is a risk of gallstones in the bile duct, an X-ray of the bile duct (operative cholangiogram) will be taken during the operation.

If gallstones are found, they can sometimes be removed during keyhole surgery. If complications occur, your surgeon may have to convert to open surgery.

Bile duct stones can also be removed after your operation with a special endoscopy called an ERCP, or endoscopic retrograde cholangiopancreatography.

After the gallbladder has been removed, the gas in your abdomen will escape through the laparoscope. The cuts in your skin are closed with dissolvable stitches and covered with dressings.

The operation takes 60 to 90 minutes and is usually carried out as a day case, so you can go home that day.

Open cholecystectomy

In some circumstances, a laparoscopic cholecystectomy may not be recommended. This may be due to technical reasons or safety concerns.

Your surgeon will be able to discuss with you the reasons why an open cholecystectomy may be recommended in your case.

During an open cholecystectomy a large incision is made in your abdomen and your gallbladder is removed through it.

The incision is around 10-15cm (4-6 inches) long and is made underneath the ribs. This will result in some scarring.

If complications arise during keyhole surgery, such as bleeding, it may be necessary to convert to open surgery. There is around a 1 in 50 chance of this occurring.

Open surgery is just as effective as laparoscopic surgery, but it does have a longer recovery time. Most people take about six weeks to recover from the effects of an open cholecystectomy.

Complications of a gallbladder removal

Removal of the gallbladder (cholecystectomy) is a relatively quick and safe procedure but, like all operations, there is a small risk of complications.

Infection

An infection can occur after any type of abdominal operation and occurs in around 1 in 15 cholecystectomies. Simple wound infections can be treated with a short course of antibiotics, as can infections inside your abdomen.

Risks from general anaesthetic

There are several serious complications associated with having a general anaesthetic, but these are very rare. Complications include allergic reaction and death. Being fit and healthy before your operation reduces the risk of any complications occurring.

Bleeding

Bleeding (haemorrhage) can occur after your operation, although this is rare. If bleeding does occur, it may require a further operation through the same keyhole scars as your first operation.

Bile leakage

When the gallbladder is removed, special clips are used to seal the tube that connects the gallbladder to the main bile duct, draining the liver. However, bile fluid can occasionally leak out.

Sometimes this fluid can be drained off. In rare cases, an operation is required to drain the bile and wash out the inside of the abdominal cavity.

Bile leakage occurs in around 1 in 100 cases.

Injury to the bile duct

The most serious complication of gallbladder surgery is injury to the bile duct, which occurs in about 1 in 500 cases. If the bile duct is injured during surgery it may be possible to repair it straight away. In some cases, complex and major corrective surgery is needed after your original operation.

Injury to intestine, bowel and blood vessels

The keyhole instruments used to remove the gallbladder can injure surrounding structures, such as the intestine, bowel and blood vessels. The risk is increased if the gallbladder is inflamed.

This type of injury is rare and can usually be repaired at the time of the operation. Sometimes injuries are noticed afterwards and a further operation is needed.

Deep vein thrombosis

Some people are at a higher risk of blood clots developing during surgery. This is known as deep vein thrombosis and usually occurs in the leg vein.

You may be given compression stockings to wear during the operation to prevent this from happening.

Read more about deep vein thrombosis.

Post-cholecystectomy syndrome

Around one in seven people will experience symptoms similar to those caused by gallstones (though usually much milder) after surgery, such as:

abdominal pain

indigestion

diarrhoea

yellowing of the eyes and skin (jaundice)

a high temperature (fever) of 38°C (100.4°F) or above

This is known as post-cholecystectomy syndrome (PCS). PCS remains a poorly understood condition, but it is thought to be caused by altered bile movements through the body. For example, bile may leak up into the stomach, causing irritation.

Some cases of PCS may be the result of stones still trapped in bile ducts.

In most cases symptoms are mild and short-lived, but in around one in three cases symptoms persist for many months.

If you do have persistent symptoms you should contact your DOCTOR for advice.

One option is to carry out an endoscopic retrograde cholangiopancreatography (ERCP) to check for any remaining gallstones.

There are also medicines, such as antacids, proton pump inhibitors and loperamide that can be used to help relieve symptoms such as abdominal pain, indigestion and diarrhoea.

Recovering from a gallbladder removal

Recovery after keyhole surgery to remove your gallbladder (laparoscopic cholecystectomy) is usually quick.

Most people are able to eat and drink and leave hospital on the same day as the surgery. In some cases, you may be advised to stay overnight and go home the next day.

After open surgery you will have to stay three to five days in hospital and your recovery time will be longer. Typically, it takes six weeks to recover fully from the effects of open surgery.

Side effects

Side effects after a cholecystectomy are usually temporary and mild. They may include:

Feeling sick. You may feel sick as a result of the anaesthetic or painkillers you have been given. This should pass quickly.

Pain in the abdomen and shoulders. This is a result of the gas used to inflate your abdomen and should pass after a couple of days. Painkillers can be taken to relieve any pain or discomfort.

Diarrhoea. This can come from bile irritating your digestive system. Eating high-fibre food such as brown rice and wholemeal bread will help to firm up your stools. Your doctor may also be able to prescribe a firming agent to help.

Getting back to normal

After leaving hospital after keyhole surgery, most people are back to normal, including working and doing gentle exercise, within 7–10 days. This may take longer after open surgery.

Driving

You can start driving again when you can do an emergency stop without any discomfort. Some insurance companies do not insure drivers for a number of weeks after surgery, so it is best to check what your policy says before starting to drive.

Wounds

If you had open surgery your stitches may need to be removed afterwards. You will be given an appointment for this before you leave hospital.