

# GALLSTONES and SURGERY FOR GALLSTONES

## What are gallstones ?

Gallstones consist of crystals of cholesterol mixed with bile pigments. These form particles which can vary in size from sand or gravel to larger stones measuring several centimetres in size. Although usually found in the gall bladder they can migrate into the bile duct, gut, and even perforate into the abdominal cavity.

## Where is the gallbladder ?

The gallbladder is a sac-like structure suspended from the under surface of the liver, underneath the right lower ribs.

## What causes gallstones ?

Bile is mixture of cholesterol, salts and waste matter. Any imbalance in the constituents of bile can result in the formation of gallstones. It is likely that the high fat diet in the Western world contributes to the increasing incidence of gallstone disease. About 1 in 3 women, and 1 in 6 men, form gallstones at some stage in their lives. They become more common with increasing age and can also occur during pregnancy due to hormonal changes.

## What symptoms will I need to look out for ?

Gallstones can present in various ways, though a proportion cause no symptoms whatsoever and are picked up on routine ultrasound scans. Upper abdominal pain is the most common symptom, which is characteristically very severe, lasts for several hours and requires strong painkillers to provide relief. Fatty foods can often precipitate an attack which generally occurs at night after an evening meal. Gallstones can also cause indigestion like symptoms. Occasionally the pain can be confused with angina or a heart attack. If gallstones migrate from the gallbladder they can cause jaundice, pancreatitis and even bowel obstruction.

### How can gallstones be detected ?

Ultrasound scans are the most sensitive method of detecting gallstones, but plain X-rays and CT scans can also pick up stones. A proportion of gallstones are so small that they are not seen on conventional scans, however endoscopic ultrasound scanning can detect even the smallest fragments.

### Can they be left alone ?

Gallstones discovered incidentally in patients who have no symptoms do not require treatment. However if they are causing symptoms, or presenting with complications, treatment is advised.

### Can they be life-threatening ?

Gallstones do not often cause serious illness and the majority of patients have uncomplicated keyhole surgery to remove the gallbladder. Occasionally gallstones can cause pancreatitis which is a serious condition that can be life-threatening.

### What is the standard treatment for symptomatic gallstones ?

The gold standard treatment is removal of the gallbladder with keyhole surgery (laparoscopic cholecystectomy). For this procedure the gallbladder is removed under general anaesthesia, and four small holes are made to introduce a camera and instruments to dissect and remove the gallbladder from the liver.

### What are the risks of surgery ?

In 1-2% of cases, keyhole surgery must be converted to a conventional open operation and this is often due to particularly severe inflammation or other complications. It is difficult to predict if this will be required until the actual operation takes place. In these cases recovery may be prolonged with a 3-4 day stay in hospital required. Additionally in

approximately 0.5% of patients, bile can leak into the abdominal cavity and this complication may require further surgery or endoscopic therapy. Very occasionally the main bile duct can be damaged but this occurs in approximately 0.1% of cases. At GenSurgeon an intra-operative X-ray is carried out to further minimise this risk.

### What can I expect after surgery ?

Most patients are fit for discharge on the day of, or morning after surgery. Patients are able to eat and drink within 4-6 hours of surgery, with no restriction to their diet. Some pain is to be expected for a week or two after surgery as the wounds heal. This is treated with simple painkillers and should not be severe or persistent.

### When can I return to work ?

Keyhole surgery has dramatically reduced the discomfort of the post operative recovery for this kind of surgery. However one should plan for a week to 10 days before returning to work.

### Are there alternatives to surgery ?

A number of techniques have been trialled including shock wave treatment, laser therapy and methods to dissolve the stones using chemicals. None of these has been proven to be effective in the long term, they can cause unpleasant side effects, and stones often recur.

You can discuss any questions you have about surgery with Mr Jourdan when you see him in clinic