



Information for Patients

Your GP has diagnosed you with having biliary pain, which is likely being caused by gall stones. This can be relieved with an operation. As you are otherwise healthy, it is possible for your GP to manage your pre-operative and post-operative care. This may expedite the process for you, and avoid multiple visits to the hospital to see the surgeon and anaesthetist.

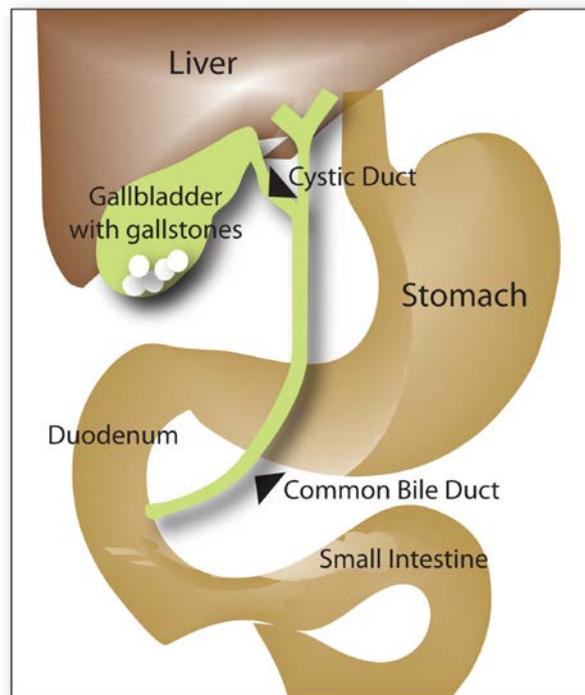
It is important to know that you will still meet the surgeon and anaesthetist, however this may be only on the day of your surgery. If you are unhappy with this arrangement, or feel you would like to speak to either the surgeon or anaesthetist before the day of your surgery, please let your GP know. If this is the case, you will be referred through the conventional process. If you have had problems with surgery or anaesthetics before, or any of your family members have had problems with an anaesthetic before, please let your GP know as it may be better to see the surgeon and anaesthetist before the surgery. If after reading this pamphlet, you still have some questions, or would like to speak to the surgeon or anaesthetist, let your GP know so we can arrange an outpatient appointment for you.

WHAT IS THE GALLBLADDER?

The Gallbladder is a small pear-shaped organ that rests under your liver. Its main function is to collect and store bile, which is a fluid that helps digest fat. Gallstones can form in the gall bladder, and in a small percentage of these people, symptoms can develop. When you eat, bile flows freely from the gallbladder into your small bowel to help digest your food. However, if a gallstone plugs the outflow from the gallbladder, you may get pain. If the gallstones are left untreated, complications may develop. These include inflammation of the gallbladder, which is called cholecystitis. In some instances, these stones can travel into the bile duct, and cause a blockage of the bile duct that can result in pain, jaundice or pancreatitis (inflammation of the pancreas).

Generally the symptoms will resolve once the gallbladder has been removed. In some instances, the pain may persist, due to other conditions such as bile duct problems. If your symptoms persist following the operation, you will need to let your Doctor know, so this can be followed up.

Once the gallbladder has been removed, bile will still flow freely into your small intestine, and you will be able to digest your food normally.



WHAT CAUSES GALLSTONES?

The gallbladder concentrates bile, therefore if the bile, cholesterol or fluid becomes unbalanced within the gallbladder, the chemicals in bile can solidify and form a crystal. Gallstones then form. Most of them are made up of cholesterol. Doctors do not know exactly why some people get gallstones, while others do not, however pregnancy, obesity or rapid weight loss, female, older age and some ethnic groups of people are more likely to develop gallstones.

There is no treatment or diet that can prevent or treat gallstones, however, in most people gallstones do not cause symptoms and therefore the symptoms can come and go over many years. However, once you have been getting pain from gallstones it does tend to recur if left untreated. Gallstone pain typically occurs after a meal. It is a severe steady pain in the abdomen they can go to your back. There is often bloating or vomiting with the pain.

WHAT IS A LAPAROSCOPIC CHOLECYSTECTOMY?

Laparoscopic cholecystectomy is the surgical removal of the gallbladder, using a tube shaped telescope (commonly known as keyhole surgery). Usually about four to five small incisions are made in the abdomen.

In a small number of cases, this procedure cannot be performed by keyhole surgery, and the surgeon will need to perform an “open” procedure instead. This involves making a larger incision, and may result in you staying in hospital for a longer period of time. Reasons for needing an “open” cholecystectomy include a history of previous abdominal



surgery, severe inflammation, the surgeon being unable to visualise the organs, and risk of damage to surrounding internal organs, pregnancy, or bleeding disorders.

The surgeon will make the decision to perform an open procedure, either before or during your operation, based purely on the safest way to remove your gallbladder.

The gallbladder is not an essential organ, so you will still be able to digest food normally after this operation. However, some people do experience indigestion or bloating on occasions after having their gallbladder removed.



WHY A LAPAROSCOPIC CHOLECYSTECTOMY?

For most people laparoscopic procedure has benefits over an open procedure. These include less discomfort after surgery, a shorter time in hospital, a faster recovery, a better cosmetic experience and small scars instead of a large scar.

The surgery is performed through several small puncture wounds in the abdomen. Carbon dioxide is blown into the abdominal cavity to create a space, by lifting the abdominal wall off the liver and gallbladder. Then using a small video camera attached to the laparoscope, the surgeon is able to see inside your abdomen. The operating instruments are placed through small puncture wounds around the gallbladder, and under vision the tissues holding the gallbladder onto the liver are dissected free.

In some cases a dye test and x-ray is performed to ensure that there are no stones in the bile duct. If stones are in the bile duct, these may be removed at this time or at a later procedure. Clips are used to close off the artery that supplies the gallbladder and the cystic duct (the tube that drains the gallbladder). These clips remain in your body.

At the end of the procedure the carbon dioxide gas is allowed to escape from your body, and the incisions are closed.



WHY DOES THE GALLBLADDER NEED TO BE REMOVED?

Gallstones in the gallbladder is a common problem, affecting about one in every 10 adults. If these gallstones are causing you pain and other symptoms, they are usually best treated by removing the gallbladder. If just the stones are removed, it is likely that they will just reform over time.

WHAT ARE THE RISKS?

Whilst this is a relatively safe procedure, as with any operation, it is not without risk.

Specific risks of Laparoscopic cholecystectomy:

-If, after starting the operation, your surgeon believes that it is not safe to continue doing the operation laparoscopically (by keyhole surgery), the surgeon will make a larger cut in your abdomen to remove the gallbladder. This is called an open operation. An open operation may be necessary if there is infection of the gallbladder, gangrene of the gallbladder, abnormal anatomy, scar tissue within the abdomen or any other problem that stops the surgeon getting a clear view of the gallbladder. Conversion to an open operation is not a complication of the surgery but rather is done to protect the patient and in the interests of your safety. Normally, conversion to an open procedure occurs in 1 in 20 patients, but may be as high as 1 in 5 patients if there is inflammation.

-Unintended injury to the nearby structures can occur. The most important structure in the area of the gallbladder is the common bile duct. Damage to the bile duct happens in 1 in 400 cases. This would likely require a further operation to repair the bile duct, and runs the risk of having strictures in the bile duct or ongoing problems in the future that may need further operations or treatment.

-Other complications that can occur are bleeding from the liver, infections in the wound, damage to other internal organs such as the small bowel, or a bile leak following the surgery. A bile leak happens in one in 100 cases, and usually if there is inflammation at the neck of the gallbladder. If there is concern about bile leak at the time of surgery, your surgeon will place a small drain in your abdomen to drain the bile. This will be removed once the bile stops leaking, or in some instances you may require a further procedure, called an ERCP, to repair the leak.

General risks of surgery:

There are some risks which can occur with any operation. These include bleeding, which may require a blood transfusion or another operation, infections in the wound, damage to other internal organs such as the small bowel and an allergy to the drugs used, heart attack (very unusual if you are fit), blood clots in your legs, and pneumonia. Complications such as these occur in 1 in 1000 to 1 in 10,000 cases.



General risks from an anaesthetic:

You will have your operation under general anaesthetic, meaning, you will be asleep. The anaesthetist will give you a mixture of drugs to keep you unconscious and pain-free during your operation. Modern anaesthetics are very safe, and the risk of dying from your anaesthetic is less than the risk of you dying in a car accident on the way to the hospital. However, risks do still exist.

It is not uncommon to get side-effects from your anaesthetic, these include nausea or vomiting, headache, pain at injection sites, sore throat and blurred vision. Less commonly you may have muscle pain, weakness or a mild allergic reaction to the medications with itching or a rash.

Other common side-effects include awareness under anaesthetic, damage to teeth, damage to the voice box which may cause temporary loss of voice, damage to nerves and pressure areas, and an epileptic seizure.

Rare risks which may cause death include an allergy to the medication, very high temperature (malignant hyperpyrexia), a stroke or heart attack, pneumonia, paralysis, blood clot to the lungs or a brain injury.

These risks can be increased if you are elderly, have a bad cold, flu or asthma, are a smoker, overweight, have diabetes, have heart disease, have kidney disease, have high blood pressure or other serious medical conditions.

AFTER YOUR SURGERY

Following your operation, you will wake up in the recovery room. Once stable you will be transferred to the post operative Day Ward. Your blood pressure, pulse, and wounds will be monitored closely, and you will be able to start drinking shortly after your operation. You will be able to get out of bed a few hours after your surgery, and able to eat as soon as you feel you can.

Shortly after your operation, it is not uncommon to feel nausea or to have pain in your shoulders. These symptoms generally settle down within a few hours of the operation.

When you go home you may have abdominal bloating and gas pains, these will also settle down once your digestive system returns to normal. Be aware that some pain medication may affect your bowels and cause constipation.

Most patients recover after the surgery within a week or so. You can help yourself recover by not lifting anything heavy and not doing vigorous exercise for 3 weeks after your surgery.



WHEN CAN I GO HOME?

There are a number of factors that need to be considered before you can go home. Firstly, you will need to have a responsible adult stay with you for the 1st night and day after your operation. You may be discharged once you are able to eat and drink without vomiting, mobilise to the toilet, and have passed urine. You will be given a prescription for tablets for pain relief and for prevention of nausea. These are the same medications that you would receive if you were to stay in hospital overnight.

RECOVERY

You will be able to move around from a few days after the operation, however if you do anything strenuous, you may get pain. This is your body telling you to slow down. You may need help in the first day or two after the operation, and you may feel tired and or need a sleep in the first few afternoons after your operation. This will settle down and by 2-3 weeks you should feel fine.

FOLLOW UP

Please see your doctor if you have increasing pain, nausea and vomiting or severe abdominal distention (swelling) after the operation.

You should see your doctor 1 - 2 weeks after the surgery for a checkup, and to get the results of your gallbladder histology. If your doctor has any concerns about your progress, he/she will be in touch with your surgeon and if necessary, arrange for us to review you in the hospital surgical clinic.

IMPORTANT CONTACTS

First port of call	Your GP	
Direct Access specialist Nurse	Sharon	07 579 8540