PATIENT INFORMATION SHEET

Having a gallbladder operation

This information leaflet has been created by the Surrey & Sussex Specialist Consultant upper gastrointestinal and laparoscopic surgeon:

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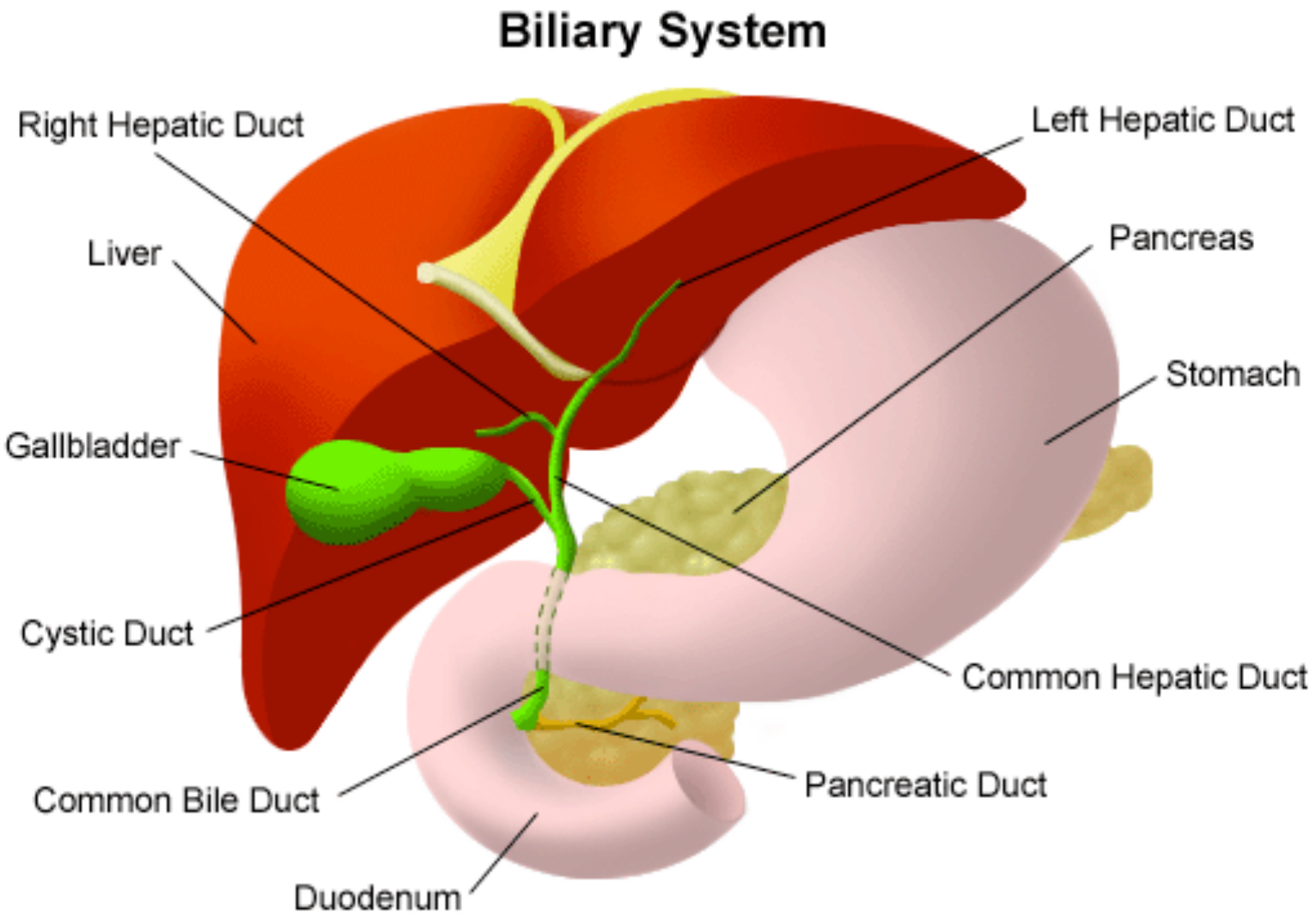
Biliary System
Right Hepatic Duct
Left Hepatic Duct
Liver
Pancreas
Stomach
Gallbladder
Cystic Duct
Common Hepatic Duct
Common Bile Duct
Pancreatic Duct
Duodenum

What is a gallbladder?

The gallbladder is a muscular storage bag, roughly the size of a small pear, which is attached to the liver (this is on the upper right side of your tummy, just behind your lower ribs).

What does the gallbladder do?

It acts as a storage tank for bile.

Bile is continuously produced by the liver, from where it travels down a tube (this is called "the bile duct") in to the duodenum (the part of the bowel that food enters once it leaves the stomach).

Bile mixes with food, and is necessary for normal digestion. If you have not recently eaten, the bile is diverted from the bile duct in to the gallbladder where it is concentrated and becomes thick. The next time you eat, the muscle of the gallbladder wall squeezes the concentrated bile back out into the bile duct when it then goes down in to the duodenum.

This is why the pain of gallstones tends to occur after a meal.

Can I live normally after having my gallbladder removed?

Yes. Most people notice no difference, other than the fact they no longer get the pain the gallstones were causing. Occasionally a patient reports that their bowels work more frequently, but this is seldom a problem.

The gallbladder has usually stopped working because of the gallstones, long before we finally surgically remove it.

Why did I get gallstones?

We don't really know the cause of gallstones. They are more common in older people, and with certain other medical conditions such as Crohn's Disease. They are also more common in women, and seem to run in families.

The gallbladder is producing "thick" bile, which settles out as stones. There are many different sizes of gallstones, from tiny "grains of sand" to a single stone the size of an egg!

Can gallstones be got rid of without surgery?

No. At one time there was an attempt to dissolve gallstones by a course of tablets taken over a period of months. Unfortunately these tablets caused uncomfortable side effects which patients found even worse than the symptoms caused by the gallstones! The gallstones also came back within a few months of stopping the tablets.

The next attempt to deal with gallstones without surgery involved shattering the gallstones with ultrasound waves. Unfortunately the fragments of gallstones either joined back together again, or else the gallstones became small enough to pass out of the gallbladder in to the bile tubes, which caused pain and sometimes resulted in jaundice (yellowing of the skin and eyes).

Why do I have to have my gallbladder removed, not just the stones?

If you only remove the stones, your gallbladder will make more gallstones, usually within a few months, and you will have the same trouble all over again.

How is the gallbladder removed?

This is usually a keyhole surgery operation. This involves making 3 or 4 small (1.5cm or less) cuts on the front of the tummy, and using these, a camera on a telescope and other long thin instruments are put in to the tummy cavity. This allows the surgeon to see the gallbladder and cut it free of its attachments and remove it.

This operation is still considered by surgeons to be major surgery, despite the small cuts that are the only visible signs you have had an operation.

Will I have to be shaved for surgery?

If your tummy is quite hairy, many surgeons will shave part of it to allow the dressings put on your wounds after the operation to come off with minimal discomfort.

If you have a lot of hair on your thigh you will notice an area has been shaved off. This is to allow the use of electrical cautery during your surgery; this seals off little blood vessels.

Any shaving required is done once you are asleep in the operating theatre.

Are gallbladders only ever removed by keyhole surgery?

No. Previous major surgery done in the abdomen may result in scar tissue inside the tummy cavity (called “adhesions”), which can prevent the telescope being able to clearly see the gallbladder. The types of operations that can cause this problem are: major bowel surgery, major surgery on blood vessels in the abdomen, or abdominal surgery done as an emergency following an accident. Those operations all leave a long vertical scar on your abdomen. Smaller operations e.g. appendix operation, caesarean section or hysterectomy through a “bikini line” scar, seldom prevent successful keyhole surgery on the gallbladder.

The other common reason for keyhole surgery failing is the condition of the gallbladder itself. Gallstones may cause inflammation and scarring of the gallbladder, which may result in the wall of the gallbladder becoming greatly thickened (the wall of the gallbladder is normally paper-thin) and the delicate keyhole surgery instruments cannot cope with this. This is why it will be explained to you that although you are signing your permission for keyhole surgery, you have to be prepared to accept a small risk of having your gallbladder removed in the old fashioned way (by a 10-20cm cut on the abdomen).

Your surgeon can tell you what your risk of having this larger cut is.

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Apart from the size of the cuts on my tummy, is there any other difference between keyhole surgery or the open operation to remove the gallbladder?

No. The internal surgery is the same. The main difference is the degree of discomfort experienced. As you would expect, this is greater with the larger cut, as is the chance of developing a feeling of nausea (sickness) that often prevents you from eating for two or three days afterwards.

By contrast, most patients who have keyhole surgery are well enough to go home within 24-48hrs.

Fit and healthy young patients with good home support can arrange to have keyhole surgery of their gallbladder as a day case.

How soon can I go home after my operation?

To be able to go home you must be able to drink, be able to eat light meals, and be able to walk about comfortably. You must also be able to pass urine normally. Most people need to take tablet-type painkillers after their operation. If you have had keyhole surgery, this may be only required for a few days, but if you have the open operation with the large cut, you will need to take them for longer.

I had an investigation for something else, and I was told I had gallstones, should I have my gallbladder out?

As a general rule, we don’t recommend surgery to prevent trouble from gallstones, because many people have gallstones and live their entire lives without having symptoms from them.

You may wish to discuss your own particular situation with a specialist.

While I am waiting to have my gallbladder removed, is there anything I can do to prevent attacks of pain?

Yes. You need to keep to a very low fat diet. This means avoiding butter, full fat milk, cream, cheese, chocolate etc. You should avoid any oily foods, and grill, rather than fry, your food.

Keeping strictly to this sort of diet usually means you will lose weight.

Your General Practitioner may already have given you a supply of strong painkillers to have in reserve should you have another attack of pain. If not, you can ask him/her for some painkillers.

If I have my gallbladder and gallstones taken out, will all my symptoms go away?

If your symptoms were due to gallstones, then you will be relieved of your symptoms once you have recovered from your operation.

Gallstones are very common, and you can have them at the same time as a variety of other conditions that can cause similar symptoms, so there is always a small chance that removing your gallbladder will not solve the problem.

If we feel that your symptoms are possibly not due to gallstones, we will warn you of this before we take your gallbladder out, and we may ask you to have other investigations on the stomach or bowel.

There are risks specific to the patient's general health:

Heart disease: gallbladder removal is major surgery, which can put a strain on existing heart problems, resulting in a heart attack around the time of surgery. This may result in death, or prolonged ill health. You may have to have a heart scan (echocardiogram), and an anaesthetic review in advance of surgery. You may also require review by a heart specialist (cardiologist).

If you are on warfarin: this will have to be stopped in advance of your operation, keeping your blood thinned with heparin. This needs to be done while you are in hospital, so you will need to be admitted to hospital before your planned operation day. The heparin needs to be stopped several hours before you go to the operating theatre, so that your blood clots normally at the time of your surgery. It is not possible to operate on gallbladders without normal blood clotting, as the risk of a major life-threatening haemorrhage is too great. Clearly you have been put on warfarin in order to prevent your blood clotting normally, and there is a risk to you during the time you are off warfarin. If your symptoms from gallstones are fairly mild, the surgeon may advise you that the risk of surgery is too high, and advise you not to have an operation. Having surgery when you are on blood thinning medication always increases the risk that you will develop a haemorrhage at the time of surgery or in the first few days after surgery.

If you have diabetes: mild diabetes controlled by diet or a small number of tablets is often not a problem if you are having gallbladder surgery. If a combination of tablets, or insulin injections, is required to keep your diabetes under control then you will have a longer stay in hospital, having insulin given by a drip. If you have had diabetes for many years it may have had a bad effect on your heart and kidney function, and problems with your circulation: if this is the case then the risks to your life of having gallbladder surgery is increased.

If you are overweight: this greatly increases your chances of developing a blood clot in the legs, which may lead to a pulmonary embolism (the blood clot travels to the lungs, a condition which can be fatal). You are also at increased risk of developing a chest infection (pneumonia). People who are overweight are also at risk of diabetes and heart disease, which also increases your risks when having surgery (as described above).

If you are a smoker: you are at increased risk of developing a chest infection and blood clots in the legs after an operation. Smoking also increases the risks of heart disease, so you are at increased risk of developing a heart attack around the time of surgery.

Breathing problems: you may require special tests on your lungs, and an anaesthetic review. Your risk of developing a chest infection (pneumonia) will be markedly increased. People with severe breathing problems may require admission to Intensive Care for observation, sometimes for support on a breathing machine.

Is it possible to be too unfit for surgery?

Yes. Some people are in too poor health to have major surgery. This is usually because of heart problems or lung problems, but a variety of health conditions can make somebody have such a high risk of dying with surgery, that the surgeons will advise them not to have surgery. We may also decide to have an anaesthetic doctor examine someone to help us assess whether they are fit for surgery or not.

If you are advised by a consultant surgeon not to have surgery on your gallbladder, but you still wish to have the operation, you should ask for a second opinion from another consultant surgeon, and we will arrange this for you, or we will ask your General Practitioner to arrange it for you.

Can there be complications of an operation to remove my gallbladder?

Yes. All operations carry a risk.There are general risks that are common to all operations:

Wound infection: the skin around the wounds may go red and painful, or the wounds may leak. Around 1 in 5 patients will experience this, usually after they are already at home. You should get your doctor or practice nurse to check your wounds if this occurs, as you may need antibiotics.

Bruising: it is quite normal to experience some bruising where your wounds are, often this does not appear until after you have gone home from hospital. Occasionally a very large bruise may form which takes one or two weeks to go away. The wounds may ooze a little bit of blood for the first 48hrs, requiring a change of wound dressing. This is quite normal.

Chest infection: if you develop a cough, or feel short of breath after your operation, you may have developed a chest infection. This is rare if you are fit and healthy. You are at high risk of this if you have a lung disease (chronic bronchitis, emphysema, severe asthma), and moderate risk if you are overweight, or are a smoker.

Internal bleeding: this is rare (occurring in less than 1 in 100 gallbladder operations), and occurs within the first 24hrs following surgery. It may require you to have a blood transfusion, or a second operation in order to stop the bleeding. The nurses check your pulse rate and blood pressure after the operation in order to detect this problem.

Allergic reactions to antibiotics or anaesthetics: this is also rare (occurring in less than 1 in 100 operations). If you have had a previous bad reaction to an anaesthetic or any medication, you MUST inform the surgeon or the anaesthetist before your operation.

Blood clots in the legs: this is also known as deep venous thrombosis (DVT). It carries the risk of the blood clot moving from the leg up to the lungs (pulmonary embolus), which can be a life-threatening condition. A blood clot in the leg may not give any sign or symptom that it is there, or it may cause a pain in the leg (usually in the calf muscle) or swelling of the leg. A fit healthy person has a very small risk of DVT. Your risk is higher if you are overweight, a smoker, in poor general health, have difficulty walking, or have had a previous DVT. To reduce your chance of developing a DVT you will be encouraged to get out of bed as soon as you are sufficiently recovered from the anaesthetic. You may also be given an injection of a medicine called heparin, which is proven to reduce your chance of developing a large pulmonary embolus. While you are on bed rest, you should exercise your calf muscles by moving your feet up and down.

There are also risks specific to the gallbladder operation:

Bile leak: bile may leak inside your abdomen after the gallbladder has been removed. This occurs in about 1 in 50 gallbladder operations and is usually diagnosed in the first few days after the operation. Signs of this having happened include: persistent nausea and inability to drink or eat (however, this is much more commonly due to the anaesthetic than a bile leak), bile appearing in a surgical drain (a small plastic tube from the inside of the abdomen out through the skin and attached to a bag at your side. This is placed by the surgeon at the time of your operation,), or you may develop jaundice (yellowing of the skin and whites of your eyes, with dark coloured urine). A blood test and an ultrasound scan of your abdomen will usually diagnose this problem. If you develop this complication you will need a special endoscopy test called an ERCP (a special telescope is passed down your throat whilst you are sedated) to identify the source of the bile leak, and to stop it.

Diarrhoea: Some patients experience loose stools after gallbladder removal. While this may be short term and self-limiting it can become persistent in a small minority of patients.

Gallstones in the bile duct: if you have very small gallstones they may slip out of the gallbladder in to the main bile passageway while your gallbladder is being removed. This cannot be seen during the operation. If small stones get stuck at the bottom end of the main bile passageway you will become jaundiced, or experience similar pain to that which you had when you still had a gallbladder. This complication occurs in around 1 in 50 gallbladder operations. This can occur days, weeks or even many months after your operation

Damaged main bile duct: this is a serious but rare complication, occurring in around 1 in 500 gallbladder operations. The damage may be identified at the time of the operation, and repaired then (this requires open surgery i.e. a large cut, not keyhole surgery) or it may show up within the first few days, weeks or months after your surgery. It causes symptoms and signs just as described as above for a bile leak or gallstones in the bile passageways. Blood tests, an ultrasound scan, and an ERCP are all needed to diagnose the problem. Major surgery is usually required to deal with all but the slightest damage.

Damage to bowel: this may occur as a result of the ports being placed (ports are hollow cylinders which are put in place through the skin in to your abdominal cavity, these allow the camera and instruments in to your abdomen), or from your bowel being scarred from previous surgery or inflammation. It can also occur due to a very inflamed gallbladder with gallstones working their way through the bowel wall. Bowel damage is usually seen at the time of operation, and dealt with. Sometimes an open operation is required, if the bowel cannot be repaired by keyhole surgery. Rarely, bowel damage is not seen at the time of the operation, and a second operation is required to deal with it. If you do suffer this rare complication, it will prolong your stay in hospital.