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Service:
General Surgery

Having a gallbladder operation

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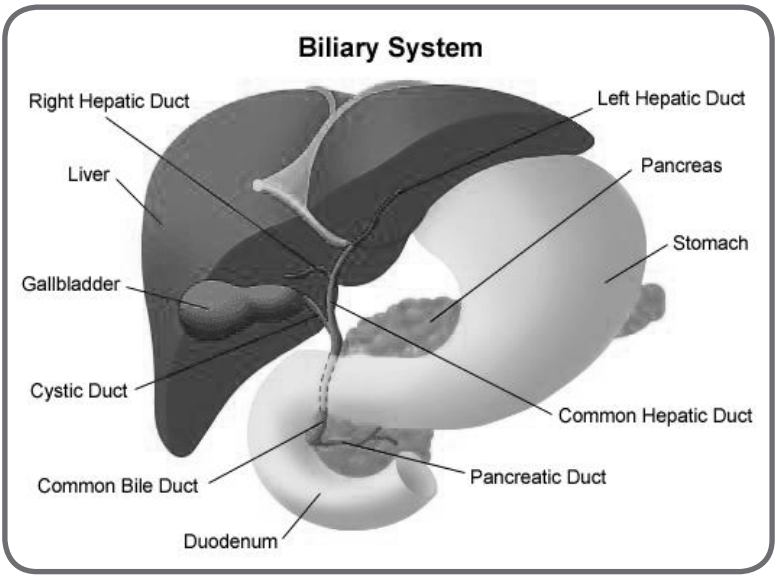
Having a Gallbladder Operation



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 intestine 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 already stopped working because of the gallstones, long before we finally surgically remove it.

Some patients who have Irritable Bowel Syndrome notice that it gets worse after their gallbladder has been taken out; the cause of this is unclear.

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 and shapes of gallstones, ranging 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 only the stones are removed, your gallbladder will make more gallstones, usually within a period of only a few months, and you will have the same trouble all over again.

Most patients with gallstones have a gallbladder that has lost its ability to function because of scarring due to the gallstones.

How is the gallbladder removed?

This is usually a keyhole surgery operation. This involves making 3 or 4 small (1.5cm/0.5inch or less) cuts on the front of the tummy, and putting several litres of carbon dioxide gas inside which allows us enough space to clearly see the gallbladder. A camera on a telescope and other long thin instruments are then 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.

Sometimes the surgeon wishes to do an ultrasound scan or rarely, x-ray of the bile duct during the operation. The latter involves using a special dye made of iodine. You need to let us know if you are allergic to iodine or shellfish, as that may mean you cannot have that x-ray.

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: surgery for ulcers, 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.

As a rough rule of thumb, if your operation is being carried out as a planned procedure and you have never been admitted to hospital for gallbladder pain the chances of keyhole surgery being successful are around 99%. If you are having your surgery after an

emergency admission, the success rate drops to 95% or sometimes lower.

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 4-48hrs.

Fit and healthy patients with good home support will 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.

Can I have my operation as a day case?

Keyhole surgery removal of the gallbladder is an operation which can be done as a day case. By carefully selecting suitable patients, only 1 in 10 patients in whom we plan to do the operation as a day case, end up having to stay overnight in the hospital (usually because they remain very sleepy, or feel sick).

To be eligible for your gallbladder surgery as a day case, you must be fit and healthy, and have a responsible adult to stay with you for 24hrs. If you have small children you will need to have a second

responsible adult to look after them. This may necessitate a partner taking a couple of days off work to look after you.

What will I be able to do when I go home?

It is normal to feel tired and a bit sore for several days. With keyhole surgery, the pain can often be felt in the shoulder. Many people feel their appetite is poor. Your tummy may appear a little swollen for one to two weeks afterwards. This is quite normal after this surgery. You should rest, and eat only light meals for the first day or two, and avoid any alcohol while taking painkillers stronger than paracetamol.

You may find your bowels to be constipated, this is as a result of missing normal meals around the time of your surgery, and is also a side effect of many painkillers. It should settle by itself, but if not, you can use a gentle laxative that you can buy from any chemist.

You will probably not feel like leaving the house for the first couple of days, but make sure you walk about within the house or around the garden every couple of hours during waking hours to keep the blood circulating in the legs and reduce the chance of a blood clot forming in the legs (known as “deep venous thrombosis”).

Younger people will return to normal sooner than an older person.

You will also tend to make a faster recovery if your operation was done as a planned operation: if you were admitted to hospital as an emergency with your gallbladder symptoms, it will often take a bit longer to recover from your operation because you were ill when you were admitted.

How do I look after my wounds after I go home?

Before you leave the ward to go home, the nurses will give you detailed instructions in how to look after the wounds you have.

It is quite normal to develop some bruising around the wounds. Most people will notice a bruise appears at their tummy button (which is where the gallbladder was taken out from), and in some

people this bruise can become the size of your hand, and range in colour from traditional black and blue through to green and yellow. It may look alarming, but it is not serious and will eventually go away.

In general, if you have keyhole surgery, the little wounds have dissolving stitches (which therefore don't have to be taken out) and will be covered with small dressings. You should keep your wounds dry for 48hrs, and after that it is fine to shower. If your wounds are not weeping after 48hrs, you do not require any dressings over them, although you may find it more comfortable to put a dressing on some of them to prevent clothes catching. It is sensible to cover your wounds if they are weeping, in order to protect your clothes. Wounds should not weep for more than 5 days. If your wounds do continue to weep after 5 days, then you should contact your GP's surgery to get your GP practice nurse to take a look at them.

If your operation went from keyhole surgery to an open operation, then you will have a 6-12 inch wound which may have stitches or metal clips which need to be removed, rather than dissolving stitches. These stitches/clips will need to be removed at 7-10 days. As you are usually at home by then, this is normally done by your GP practice nurse, or district nurse. Before you go home, the ward nurses will tell you whether they have arranged this, or whether you need to telephone your GP surgery in order to arrange it. These larger wounds often weep for longer, and usually require to be covered for 5 days. You may still shower at 48hrs, but you should put a fresh dressing on afterwards.

With both keyhole surgery and open surgery, you may have a bath from 5 days following your operation, as long as the wounds are not weeping.

Normal weeping is either clear fluid or blood-stained. If the fluid becomes thick and yellow/greenish, then this may indicate a wound infection, and you should see your practice nurse within 24hrs of noticing it.

It is normal for wounds to feel lumpy and tender for several weeks afterwards, with a slight redness along the line of the wound. If this redness spreads more than 1cm from the wound edges then this

may be a sign of a wound infection developing; again you need to see your GP practice nurse.

When will I be able to go back to work?

This depends on your type of work, and whether you had keyhole surgery or open surgery.

A desk job can be returned to after a week or two if you have had keyhole surgery, or around four weeks with open surgery.

A heavy manual job will require longer off work, around three to four weeks off for keyhole surgery, and six to eight weeks for open surgery.

When can I start to drive again?

Once you can comfortably use all the controls in the car, and are no longer taking strong painkillers. This means being able to perform an emergency stop, and being able to turn round in your seat to safely reverse the car.

We usually recommend not driving for three or four days after keyhole surgery, and around ten days for open surgery.

It is always best to check with your insurance company to see if they have any specific rules related to the type of operation you have had done. This is particularly important for professional drivers e.g taxi drivers, HGV drivers.

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 1000 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. If you have a shellfish allergy, this may mean you are allergic to iodine, which is used in the operating theatre, so please alert us to this. It is also important that you alert us if you have a latex allergy.
- **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. If you fall in to a category of having a high risk of a DVT, you will be given a heparin injection before your operation and will have to continue to inject yourself with heparin at home to complete the course.

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 when he/she thinks you are at risk of a bile leak,), 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, and the leak does not stop by itself, 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. Occasionally a further laparoscopic operation is required to wash out the bile in the abdominal cavity and place a drain to allow any further bile to come out.
- **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 100 gallbladder operations. This can occur days, weeks or even many months after your operation.

This is usually dealt with by an ERCP as described above.

- **Gallstones left behind in the abdomen:** occasionally when the gallbladder is being removed, the gallbladder wall tears, allowing some gallstones inside to fall out. Your surgeon will always attempt to gather up those stones and remove them, but sometimes they "hide" out of sight and cannot be collected. Very rarely (less than 1 in 1000 chance) do these "lost" stones cause an abscess inside the abdomen months or years later. If that were to happen, a further operation to collect the infected stones and drain the abscess would be required.
- **Damaged main bile duct:** this is a serious but rare complication, occurring in around 1 in 400 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 within days of the original operation is required to deal with it. If you do suffer this rare complication, it will prolong your stay in hospital.

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

- **if you have 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 have 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.
- **if you are on warfarin / NOACs:** this will have to be stopped in advance of your operation. For some patients, the warfarin can be stopped for a few days with minimal risk, but for others (such as patients with artificial heart valves) once the warfarin is stopped we need to keep your blood thinned with heparin. This needs to be done while you are in hospital, so you will need to be admitted to hospital one or more days 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 the 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 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. You are also at increased risk of a wound infection. Smoking also increases the risks of heart disease, so you are at increased risk of developing a heart attack around the time of surgery.

If we feel you are a high-risk patient, we will tell you.

Is it possible to be too unfit for gallbladder 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 people die having gallbladder surgery?

Yes, but this is very uncommon as surgeons and anaesthetists are careful not to operate on people who are so unfit that the risks of surgery outweigh the benefits.

Overall, around one person out of a thousand having gallbladder surgery will die, usually of a post-operative complication such as a heart attack.

Your risk is clearly more if you are elderly or in poor health, than if you are young and fit.

Is there anything I can do to improve my health before having surgery?

If you are a smoker you should stop as far in advance (at least 6 weeks) of your surgery as possible (smoking increases the risk of a chest infection after an anaesthetic).

If you are overweight, you should try and lose weight, to get down to your target weight for your height. Your General Practitioner may have a nurse in the practice that can help you with a weight reducing diet, or you could join Weightwatchers.

If you are diabetic you need to keep your blood sugar levels in the correct range.

If you have high blood pressure that needs to be well controlled before you can have surgery.

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

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.

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.

Mr J Hopkins, Mr J Hewes, Mr A Osborne, Mr C Wong, Mr N Arvind.

THE UPPER GASTROINTESTINAL SURGICAL UNIT

North Bristol NHS Trust

Further Information:

https://patient.info/health/gallstones-2

https://cks.nice.org.uk/gallstones

https://cks.nice.org.uk/cholecystitis-acute

https://www.rcseng.ac.uk/library-and-publications/college-publications/docs/gall-bladder-removal/

PATIENT APPROVED

For further information, please speak to the staff looking after you

www.nbt.nhs.uk

If you or the individual you are caring for need support reading this leaflet please ask a member of staff for advice.

Southmead Hospital Charity

southmeadhospitalcharity.org.uk

Southmead Hospital Charity raises funds for departments and wards throughout the Trust, meaning you can support an area close to your heart