Laparoscopic Cholecystectomy Surgery and Anaesthetics Patient Information Leaflet
This leaflet will give you some useful information about gallstones, their effects on you, options of treatment and alternatives, the benefits of surgery, what it involves and what the common setbacks and complications are. If you do need more information please ask your surgeon, your anaesthetist or the nurse in charge.

The gallbladder and its function

The gallbladder is a pouch like small organ which lies behind the right ribs and below the liver.

This diagram shows the gallbladder and adjacent organs.

The gallbladder connects with the bile duct through its outlet. It stores bile. Bile is a yellowish green coloured fluid produced in the liver to help digestion of fatty food. When you eat a fatty meal there is a stimulus for the gallbladder to squeeze and release bile via its outlet (the cystic duct) into the bile ducts and then further down the bile ducts to the upper small intestine (duodenum).

Alternatively you can ring the hospital and ask your consultant's secretary who will give some information or put you through to the appropriate member of the team.

Contact information

Pre-operative Information
Sister Karen Fisher/Team - 01384 456111 Ext 2407

Day Surgery Unit - Sister Tracey Travis /Team 
01384 456111 Ext 1886 (7.30am - 9.00pm). Outside these times contact the Surgical Assessment Unit on 01384 456111 Ext 2699

Short Stay Ward - Sister Mitchell Jinks/Team
01384 456111 Ext 1689/1676

Within 72 hrs post surgery - Surgical Assessment Unit
Sister/Nurse in Charge 01384 456111 Ext 2699

Should you require any advice after 72 hrs please contact your GP.

Further Information

British Association of Day Surgery - www.daysurgeryuk.net/
What are gallstones?

Due to a loss of subtle balance of the composition of bile, in some people, there is a stimulus within the bile itself to form little solid particles. They increase in size and form gallstones. The stones are varying in size from a small multiple to a large single stone. These stones can produce a spectrum of symptoms but not all patients with gallstones are symptomatic.

![Image of various types of gallstones](image)

This picture shows a collection of various types of gallstones.

About ourselves

As a multidisciplinary team we continue to improve our services for you. We always give you the best option and give you all necessary information you need regarding your gallbladder surgery. We will involve you in all aspects of decision making about your care. We welcome your feedback and if you have any comments or suggestions to make please speak to one of the members of the team.

Any complaints

If you are not happy in any aspect of our service and, if you have any complaints please contact the doctors or the nurse in charge straight away. Alternatively you are welcomed to make verbal or written complaints to the patient advice and liaison service (pals).

Any other information

If you have anything else to be discussed or need further information you are welcomed to talk to your surgeon, anaesthetist or the nurse in charge.
reaction of the pancreas (acute pancreatitis) which could be quite serious in some patients. Further, gallstones in the bile duct can block its lumen completely giving rise to yellowish discolouration of the skin (jaundice) and dark coloured urine.

Very occasionally small polyps in the gallbladder can cause symptoms especially when it contracts to release its bile. If the polyp is large we generally recommend an operation to remove the gallbladder. Very rarely gallbladder cancer can give rise to similar symptoms.

**What are the alternative treatment options for gallstones?**

Once we diagnose symptomatic gallstones it's generally advised that you have your gallbladder removed. When it is diseased, it can cause more problems unless removed. You may decide to undergo non surgical measures and try to avoid fatty foods which might set up an attack of biliary colic. It's likely that you may have recurrence of symptoms in future and in the end may elect to have the surgery. In the past other options like dissolving the stones with medications and shock wave treatment have been tried without much success.

It is necessary to remove the whole gallbladder. If the gallbladder is left without stones there is a high possibility that the stones will be formed again in the diseased gallbladder. You can live a perfectly healthy life without the gallbladder.

Work

We encourage you to get back to your normal activity as soon as you are comfortable to do so which includes walking up stairs and a light job. Usually within two weeks you should be able to resume your work.

Relationships

Once you are comfortable enough there is no reason for you to refrain from any relationship.

**When should you seek further help**

If you do not improve as expected over the next few days following surgery and especially if you are having any of the below mentioned symptoms, we would ask you to seek medical advice urgently.

- A discharge of purulent fluid or blood from the wound
- Fever of above 101 F (38.5 C)
- Increased and persistent pain in the stomach
- Increase in abdominal distension (feeling of bloated tummy)
- Yellowish discolouration of your eyes and skin (jaundice)

**What about follow up?**

As we have already mentioned majority of patients will have a smoother recovery. If you are doing very well there is no need to follow you up and it may be a waste of time for all of us.
How do you look after the wounds?

Majority of wounds are sutured with absorbable materials. Frequently the dressings may stain with blood from the wounds. If they are stained, it will be changed before you go home.

You will get an appointment with your practice nurse to have a wound check within 3-4 days. Once you go home you can have a shower and the dressings become wet. You can carefully remove the wet dressings and apply a new one. It is advisable not to rub over the wound for at least a week. You may notice the wounds are a bit red and sore and it is common to have some bruising and swelling for 1-2 weeks. This will gradually improve.

General advice for you

Diet
We generally do encourage you to have a healthy diet. You don’t necessarily have to restrict any food but make sure you keep to a balanced diet.

Driving
You are advised not to drive for 1-2 week after the procedure. Nearly more than 90 per cent of patients are up and about after two weeks. When you are fully recovered, comfortable and confident you should be able to drive.

What are the benefits of removing the gallbladder?

The benefits to you of having your gallbladder removed are:-

- Prevention of recurrent pain and associated symptoms
- Prevention of complications of gallstones such as pancreatitis blockage of common bile duct

What is the operation?

In modern surgical practice the gold standard for removing the gallbladder is the keyhole operation (laparoscopic cholecystectomy). The operation is carried out under general anaesthesia using a tiny camera and other surgical instruments inserted through small incisions (cuts) in the abdomen. The majority of patients are suitable for keyhole surgery.

Very rarely due to previous surgery it may not be possible for us to insert the camera and instruments through the abdomen and you may be advised to have open surgery instead. This is more invasive than keyhole surgery and you may have to stay longer in the hospital and it may take a longer time to recover as well.
What happens before the operation?

Once you have decided to proceed with surgery you will be asked to attend the pre-assessment clinic. There you will be interviewed and all the necessary information will be obtained. MRSA screening swabs, blood tests and an ECG will be carried out in most patients. For the ladies who are on the pill or the HRT please discuss it with your surgeon as we have to take a decision on the balance of risk of thrombosis and other related conditions.

Your anaesthetic

The laparoscopic cholecystectomy is performed under general anaesthetic. The anaesthetist will see you on the morning of surgery and ask further questions about your medical history and any medication that you are taking. They will discuss other relevant issues such as confirming that you are adequately starved, asking about any loose teeth or dental work and checking that you are well on the day of surgery.

The anaesthetist will also ensure that good pain relief is provided for you and will take steps to prevent you from feeling sick after the operation. The anaesthetist will usually give you a combination of anti-sickness drugs as part of your anaesthetic which will usually be very effective.

Modern anaesthetic agents are much improved compared to those used in the past, and the recovery from them is far faster.

You may be able to sit out and walk about on the same day. We do give an adequate amount of injection of local anaesthetic injected along the skin incisions during the procedure to make you feel comfortable after surgery. In addition you will be given oral pain killers.

Very occasionally you will feel sick and we provide you with anti-sickness medications. It is important to make sure that you have passed water and empty your bladder a few hours after the procedure.

With modern anaesthetics combined with safe techniques of surgery, usually we would expect a smoother recovery and safe journey. At the moment nearly fifty per cent of our patients are discharged home on the same day of surgery.

Before you go home we make sure that all your post-operative observations are stable, you are comfortable and you have an adequate supply of painkillers to take home and a supply of dressings if necessary.

It is normal to feel a little sleepy in the hours following a general anaesthetic, and whereas most patients will feel alert and awake later on in the day, your reflexes may be slower than normal for up to 24 hours after the operation. For this reason, we ask you not to drive, operate machinery, handle hot food/liquids or sign any legally binding documentation during this time.
Modern anaesthetics are very safe and the complications are very rare. More frequently you may experience a transient sore throat after the procedure. This will settle soon and it's due to the presence of the tube in your wind pipe during the anaesthesia.

After the procedure feeling of sickness or being sick is one of the most common problems. Modern anaesthesia uses drugs with less-side effects and we tend to hydrate you well during and after the procedure thus reducing the chances of you being sick. Chest infections can be seen in a small group of patients who smoke or having existing chest problems. They may need chest physiotherapy after the procedure.

There is a possibility that a blood clot is being formed in your leg veins during the procedure. We do take precautions like giving you stockings and performing the calf compression during the procedure to prevent this. A small group of patients who are of high risk will have blood thinning medication (enoxaparin) as well.

Aches and twinges may be felt in the wounds. Occasionally there are numb patches of the skin around the wounds and they all will be fine after three to six months.

What will your recovery be like?

The majority of patients recover very smoothly. You may be able to have a soft drink or a cup of tea once you are fully awake. After four hours if you are feeling well you may enjoy a light diet.

We aim to ensure that your pain is well controlled and you are as comfortable as possible after your operation. This is done by using a combination of different painkillers such as paracetamol, codeine and anti-inflammatory drugs such as ibuprofen. This will be discussed with you on an individual basis as not all of these are suitable for everyone and alternatives may need to be used. In addition to this, the surgeon will use some local anaesthetic during your operation around the area where the gallbladder is situated, and also in the keyhole sites which will also help to reduce any discomfort.

Is the anaesthetic safe?

Modern general anaesthetics are extremely safe. The chance of a serious reaction such as an allergy to one of the drugs is very low.

The day of the operation

You will be welcomed to one of our wards or the day surgery unit by the staff nurse or the receptionist. There you will get ready for the operation. The nursing staff will carry out the check list and do urine testing. You will meet the surgeon and the anaesthetist before proceeding with surgery.

Consent for surgery?

By now most of this will have been discussed with you in detail by the surgical team. The surgeon will explain the procedure and potential complications.
Some of the common complications are mentioned below for your information. If you don't understand or need further clarification please ask your surgeon, the anaesthetist or the nurse in charge.

It is important to note that in about 5% of patients we find it difficult to complete the procedure with keyhole technique. In these situations to improve the chance of a successful operation and to reduce the risk of complications we may have to convert to an open procedure. This doesn't mean that there has been any complication.

**What are the complications?**

The complications related to the keyhole technique or the open procedure, are not very common. When they occur they are usually rapidly recognised and dealt with by the surgeons, anaesthetists and the nursing staff involved in your care. The complications could be related to the procedure itself or general anaesthesia.

Bleeding is an important complication of all operations. Significant bleeding is very uncommon but if it happens may result in the need for a further operation. Occasionally a small plastic tube (drain) will be put in at the end of the operation.

This can usually be removed after a few hours or the next day. Post-operative wound infection can occur in some patients. If it occurs you may notice pain, swelling, redness and/or a discharge a few days after the operation.

You are advised to seek medical advice urgently. Taking antibiotics will be enough in most instances and very occasionally it may be necessary to drain it under general anaesthesia.

The stones or parts of the stones might pass through the gallbladder outlet into the bile duct during the procedure. So the small stones in the bile ducts after the laparoscopic cholecystectomy can cause jaundice and dark coloured urine.

This may be evident a few days after the procedure or it may take several weeks to months. Once diagnosed it needs the endoscopic technique (ERCP) - a telescope pass via your gullet, stomach and your small bowel (duodenum) to clear the stones in your bile duct.

Very rarely (less than 1%) there may be a leak of bile from the liver bed or from the cystic duct stump. If this occurs, it is likely you will feel ill, develop worsening pain and have a temperature. This usually needs further surgery to drain bile and to stop the leak.

**What else can go wrong?**

There may be complications related to the anaesthetics. Adverse reactions to anaesthetic drugs are promptly recognised and dealt with. Usually this causes no permanent damage. If the anaesthetists found any other concern regarding your wind pipe or they have encountered any problem that will be explained to you and a detailed letter will be sent to your doctor.