

When you need an operation...
About Cholecystectomy
(Surgical removal of the gallbladder)

American College of Surgeons

Cholecystectomy (ko-le-sis-tek'-tuh-me) is the surgical removal of the gallbladder. This booklet has been prepared to tell you about this operation, the conditions leading to it, and why your doctor may recommend this procedure as the best treatment for your condition.

It is important to remember that each individual is different, and the indications for the outcome of any operation depend upon the patient's individual condition. This booklet is not intended to take the place of the professional expertise of a qualified surgeon who is familiar with your symptoms. After reading this booklet, you will probably have further questions; you should discuss these openly and honestly with your surgeon.

About the Gallbladder

The gallbladder is a small, pear-shaped organ, that lies on the underside of the liver, in the right upper portion of the abdomen. It is connected by ducts (or tubes) with the liver, and with the upper portion of the small intestine (duodenum).

The liver produces bile (a substance that is essential for digesting fats) and secretes it into the gallbladder where it is concentrated and stored. When food is eaten, especially fatty or greasy foods, the gallbladder contracts and forces bile out the ducts leading into the intestine. When the gallbladder is removed, this function is taken over by the liver and its ducts.

Gallbladder Disease

Frequently, the gallbladder contains stones or develops an infection that can interfere with its role in the digestive process. The exact causes of these conditions are not known.

Anyone can develop gallbladder disease, but it is more common in people who are overweight, and between the ages of 35 and 55. Women are more likely to suffer from it than men, a factor which appears to be associated with metabolic changes that take place during pregnancy.

Symptoms of Gallbladder Disease

Sometimes, persons with gallbladder disease have few or no symptoms. Some, however, will eventually develop one or more of the following symptoms:

1. Frequent bouts of indigestion, especially after eating fatty or greasy foods, or certain vegetables such as cabbage, radishes, or pickles.
2. Nausea, heartburn, and bloating.
3. Attacks of sharp pains in the upper right part of the abdomen. This pain occurs when a gallstone becomes lodged in the duct from the gallbladder to the intestine.
4. Jaundice (yellowing of the skin) may occur if a gallstone becomes stuck in the common bile duct which leads into the intestine, blocking the entire flow of bile from both the gallbladder and the liver. This is a serious complication and usually requires an immediate emergency operation.

Diagnosing Gallbladder Disease

Because the majority of patients who have gallbladder disease also have gallstones, the diagnosis can usually be confirmed through the use of ultrasound, a

safe and painless technique that uses high frequency sound waves to project an image of the gallbladder and gallstones on a special screen.

There are some occasions, however, when ultrasound cannot confirm a diagnosis in patients who have symptomatic gallbladder disease. Therefore, other diagnostic methods may be used, such as through the use of X rays or various other types of scanning methods.

Treating Gallbladder Disease

The only curative treatment for gallbladder disease is surgical removal of the gallbladder. Generally, when stones are present and causing symptoms, or when the gallbladder is infected and inflamed, removal of the organ is usually necessary.

When the gallbladder is removed, the surgeon also examines the bile ducts, sometimes with X rays, and removes any stones that may be lodged there. The ducts are not removed, so that the liver can continue to secrete bile into the intestine taking over the function of the gallbladder.

Most patients experience no further symptoms after cholecystectomy. However, mild residual symptoms are not uncommon. They can usually be controlled with a special diet and medication.

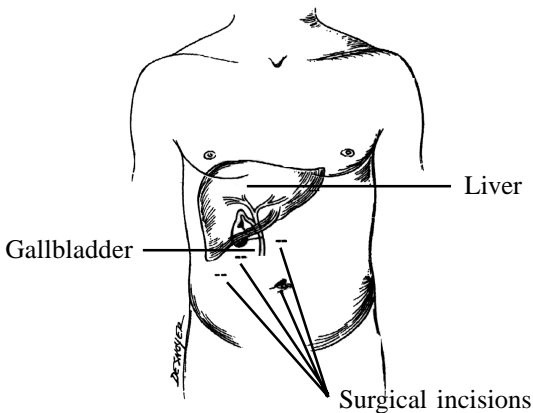
There are two commonly performed procedures for removal of the gallbladder. These are called laparoscopic (lap"ah-ro-skop'ic) cholecystectomy and conventional cholecystectomy. Discuss with your surgeon which operation is best for your condition.

About Laparoscopic Cholecystectomy

In this procedure, the surgeon uses video technology and highly specialized tools to remove the gallbladder without making a large surgical incision.

Instead, the surgeon creates four very small incisions of less than half an inch each. One of these holes is

made in or near the patient's navel so that the surgeon can insert a special instrument called the laparoscope (lap'ah-ro-skop"). The laparoscope is a long, rigid tube that is attached to a tiny video camera and a light. Before the laparoscope is inserted, the patient's abdomen is distended with an injection of carbon dioxide gas which allows the surgeon to see inside the body. Once the laparoscope has been inserted, the surgeon then guides the laparoscope while watching the view it provides on two video monitors.



During laparoscopic cholecystectomy the surgeon makes four very small incisions of less than half an inch each.

The other incisions are made in the abdomen, two of them are on the right side below the ribcage, and one is in the upper portion at the midline. Each of these three incisions is used for other specialized instruments. Two are used to grasp and retract the gallbladder and the third to insert instruments to free the gallbladder from its attachments.

The instrument that cuts the gallbladder free may be either a surgical laser or an electrocautery device. Both procedures employ localized heat to prevent bleeding. Whichever tools your surgeon elects to use, you can feel comfortable in knowing that the procedure has been proven safe and effective in thousands of similar operations.

Once the gallbladder has been cut free, the surgeon drains it of bile, collapses the organ, and removes it through the incision at the navel. After the operation, patients are often back on their feet and on their way home the very next day. Many return to work within a week. Once healed, the scars left from the four incisions are so small that they are barely noticeable.

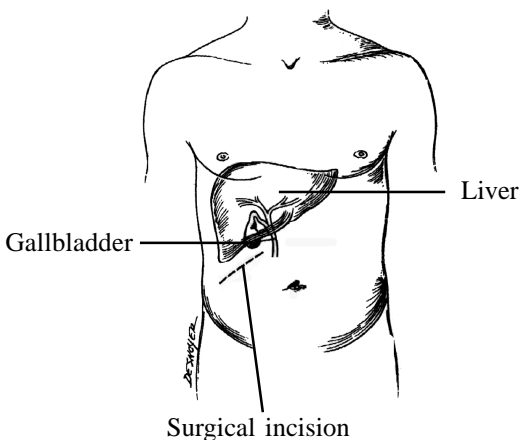
In about one in 20 cases during a laparoscopic operation, the surgeon discovers a problem, such as a severely diseased gallbladder or an excessive amount of inflammation, that requires the performance of a conventional operation (see below). Because the surgeon cannot see the gallbladder in detail until the laparoscope is inserted during the operation, some complications cannot be predicted and are only discovered once the operation has begun. Thus, patients should always be prepared for the possibility of having to undergo a conventional cholecystectomy.

About Conventional Cholecystectomy

In conventional cholecystectomy, the surgeon makes an incision that is approximately four to six inches long. The incision is made either longitudinally (up and down) in the upper portion of the abdomen, or obliquely (at a slant) beneath the ribs on the right side.

During the operation, drains may be inserted into the wound, which will be removed while the patient is still in the hospital.

During the operation, the surgeon may also remove the appendix. This is a preventive measure to avoid a possible future operation for appendicitis.



During conventional cholecystectomy the surgeon makes an incision that is approximately four to six inches long.

In uncomplicated situations, the hospital stay following conventional gallbladder surgery is about four to seven days. Most patients can get out of bed the day of the operation, and can return to normal activity within four weeks or less. In more complicated cases, patients may resume normal activity within four to eight weeks.

Removal of the gallbladder is one of the most common surgical procedures. Whichever procedure your surgeon recommends (a conventional operation or a laparoscopic cholecystectomy), you can be confident in knowing that these are not considered dangerous or risky operations in otherwise healthy individuals.

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