



Laparoscopic Gallbladder Removal (Cholecystectomy) Patient Information from SAGES

Gallbladder removal is one of the most commonly performed surgical procedures in the United States. Today, gallbladder surgery is performed laparoscopically. The medical name for this procedure is Laparoscopic Cholecystectomy.

What Is The Gallbladder?

- The gallbladder is a pear-shaped organ that rests beneath the right side of the liver.
- Its main purpose is to collect and concentrate a digestive liquid (bile) produced by the liver. Bile is released from the gallbladder after eating, aiding digestion. Bile travels through narrow tubular channels (bile ducts) into the small intestine.
- Removal of the gallbladder is not associated with any impairment of digestion in most people.

What Causes Gallbladder Problems?

- Gallbladder problems are usually caused by the presence of gallstones: small hard masses consisting primarily of cholesterol and bile salts that form in the gallbladder or in the bile duct.
- It is uncertain why some people form gallstones.
- There is no known means to prevent gallstones.
- These stones may block the flow of bile out of the gallbladder, causing it to swell and resulting in sharp abdominal pain, vomiting, indigestion and, occasionally, fever.
- If the gallstone blocks the common bile duct, jaundice (a yellowing of the skin) can occur.

How Are These Problems Found and Treated?

Ultrasound is most commonly used to find gallstones.

- In a few more complex cases, other X-ray tests may be used to evaluate gallbladder disease.
- Gallstones do not go away on their own. Some can be temporarily managed with drugs or by making dietary adjustments, such as reducing fat intake. This treatment has a low, short-term success rate. Symptoms will eventually continue unless the gallbladder is removed.
- Surgical removal of the gallbladder is the time honored and safest treatment of gallbladder disease.

What Are The Advantages of Performing Cholecystectomy Laparoscopically?



- Rather than a five to seven inch incision, the operation requires only four small openings in the abdomen.
- Patients usually have minimal post-operative pain.
- Patients usually experience faster recovery than open gallbladder surgery patients.
- Most patients go home within one day and enjoy a quicker return to normal activities.

Are You A Candidate For Laparoscopic Gallbladder Removal?

Although there are many advantages to laparoscopy, the procedure may not be appropriate for some patients who have had previous upper abdominal surgery or who have some pre-existing medical conditions. A thorough medical evaluation by your personal physician, in consultation with a surgeon trained in laparoscopy, can determine if laparoscopic gallbladder removal is an appropriate procedure for you.

What Preparation Is Required?

The following includes typical events that may occur prior to laparoscopic surgery; however, since each patient and surgeon is unique, what will actually occur may be different:

- Preoperative preparation includes blood work, medical evaluation, chest x-ray and an EKG depending on your age and medical condition.
- After your surgeon reviews with you the potential risks and benefits of the operation, you will need to provide written consent for surgery.
- Your surgeon may request that you completely empty your colon and cleanse your intestines prior to surgery. You may be requested to drink clear liquids, only, for one or several days prior to surgery.
- It is recommended that you shower the night before or morning of the operation.
- After midnight the night before the operation, you should not eat or drink anything except medications that your surgeon has told you are permissible to take with a sip of water the morning of surgery.
- Drugs such as aspirin, blood thinners, anti-inflammatory medications (arthritis medications) and Vitamin E will need to be stopped temporarily for several days to a week prior to surgery.
- Diet medication or St. John's Wort should not be used for the two weeks prior to surgery.
- Quit smoking and arrange for any help you may need at home.

How Is Laparoscopic Gallbladder Removal Performed?

- Under general anesthesia, so the patient is asleep throughout the procedure.
- Using a cannula (a narrow tube-like instrument), the surgeon enters the abdomen in the area of the belly-button.
- A laparoscope (a tiny telescope) connected to a special camera is inserted through the cannula, giving the surgeon a magnified view of the patient's internal organs on a television screen.



- Other cannulas are inserted which allow your surgeon to delicately separate the gallbladder from its attachments and then remove it through one of the openings.
- Many surgeons perform an X-ray, called a cholangiogram, to identify stones, which may be located in the bile channels, or to insure that structures have been identified.
- If the surgeon finds one or more stones in the common bile duct, (s)he may remove them with a special scope, may choose to have them removed later through a second minimally invasive procedure, or may convert to an open operation in order to remove all the stones during the operation.
- After the surgeon removes the gallbladder, the small incisions are closed with a stitch or two or with surgical tape.

What Happens If The Operation Cannot Be Performed Or Completed By The Laparoscopic Method?

In a small number of patients the laparoscopic method cannot be performed. Factors that may increase the possibility of choosing or converting to the "open" procedure may include obesity, a history of prior abdominal surgery causing dense scar tissue, inability to visualize organs or bleeding problems during the operation.

The decision to perform the open procedure is a judgment decision made by your surgeon either before or during the actual operation. When the surgeon feels that it is safest to convert the laparoscopic procedure to an open one, this is not a complication, but rather sound surgical judgment. The decision to convert to an open procedure is strictly based on patient safety.

What Should I Expect After Laparoscopic Gallbladder Surgery?

- Gallbladder removal is a major abdominal operation and a certain amount of postoperative pain occurs. Nausea and vomiting are not uncommon.
- Once liquids or a diet is tolerated, patients leave the hospital the same day or day following the laparoscopic gallbladder surgery.
- Activity is dependent on how the patient feels. Walking is encouraged. Patients can remove the dressings and shower the day after the operation.
- Patients will probably be able to return to normal activities within a week's time, including driving, walking up stairs, light lifting and working.
- In general, recovery should be progressive, once the patient is at home.
- The onset of fever, yellow skin or eyes, worsening abdominal pain, distention, persistent nausea or vomiting, or drainage from the incision are indications that a complication may have occurred. Your surgeon should be contacted in these instances.
- Most patients who have a laparoscopic gallbladder removal go home from the hospital the day after surgery. Some may even go home the same day the operation is performed.
- Most patients can return to work within seven days following the laparoscopic procedure depending on the nature of your job. Patients with administrative or desk jobs usually return in a few days while those involved in manual labor or heavy lifting may require a



bit more time. Patients undergoing the open procedure usually resume normal activities in four to six weeks.

- Make an appointment with your surgeon within 2 weeks following your operation.

What Complications Can Occur?

While there are risks associated with any kind of operation, the vast majority of laparoscopic gallbladder patients experiences few or no complications and quickly return to normal activities. It is important to remember that before undergoing any type of surgery--whether laparoscopic or open you should ask your surgeon about his/her training and experience.

Complications of laparoscopic cholecystectomy are infrequent, but include bleeding, infection, pneumonia, blood clots, or heart problems. Unintended injury to adjacent structures such as the common bile duct or small bowel may occur and may require another surgical procedure to repair it. Bile leakage into the abdomen from the tubular channels leading from the liver to the intestine may rarely occur.

Numerous medical studies show that the complication rate for laparoscopic gallbladder surgery is comparable to the complication rate for open gallbladder surgery when performed by a properly trained surgeon.

When To Call Your Doctor?

Be sure to call your physician or surgeon if you develop any of the following:

- Persistent fever over 101 degrees F (39 C)
- Bleeding
- Increasing abdominal swelling
- Pain that is not relieved by your medications
- Persistent nausea or vomiting
- Chills
- Persistent cough or shortness of breath
- Purulent drainage (pus) from any incision
- Redness surrounding any of your incisions that is worsening or getting bigger
- You are unable to eat or drink liquids