

LAPAROSCOPIC GALL BLADDER REMOVAL

COLORADO SPRINGS SURGICAL ASSOCIATES

WHAT IS THE GALLBLADDER?

- The gallbladder is a small pear-shaped organ, located beneath the right side of the liver.
- The main purpose of the gallbladder is to act as a reservoir, collecting and concentrating bile. Bile, a digestive liquid produced by the liver, is released into the upper portion of the GI tract (the duodenum) continuously via the bile ducts, and a portion is stored in the gallbladder until it is triggered to empty itself. The gallbladder is stimulated to release bile after eating, which aids digestion.
- 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 masses consisting primarily of cholesterol and bile salts that form in the gallbladder.
- Gallstones are common in the American population, with the incidence being increasing with age. Women are more commonly affected than men, and the incidence increases with pregnancy. There appears to be a familial predisposition to gallstone formation, and certain disease states also predispose some patients to gallstone development.

WHAT ARE THE SYMPTOMS OF GALLBLADDER DISEASE?

- When the gallbladder is stimulated to empty, such as after eating a fatty meal, the gallstones may block the passage of bile out of the gallbladder. This results in a sharp upper abdominal pain, nausea, and indigestion; these symptoms are termed “biliary colic,” and may last from 30 minutes to a few hours.
- In some patients, this results in an acute or even chronic infectious process, with fever and persistent pain being present.
- Gallstones may pass out into the common bile duct, causing jaundice (a yellowing of the skin) or pancreatitis (severe inflammation of the pancreas).
- Some patients suffer from typical gallbladder symptoms without the presence of gallstones; this problem is referred to as “biliary dyskinesia.”

HOW ARE GALLBLADDER PROBLEMS FOUND AND TREATED?

- The most common method to diagnose gallstones is with an ultrasound of the upper abdomen.
- Patients who have very typical biliary colic, but no stones on ultrasound, may undergo a nuclear medicine HIDA scan to evaluate gallbladder function.

- Blood tests are important to identify patients who may have gallstones which have passed into the common bile duct.
- Gallstone disease does not resolve by itself. Some symptoms can be temporarily managed by making dietary adjustments, such as reducing fat intake. However, symptoms will eventually continue unless the gallbladder is removed.
- Surgical removal of the gallbladder is the time honored and safest treatment of gallbladder disease. This can be performed laparoscopically in most cases, using small incisions, video equipment, and long, narrow instruments.

WHAT PREPARATION IS REQUIRED BEFORE SURGERY?

- Most laparoscopic cholecystectomies are performed on either an outpatient or “short-stay” basis, so you should be able to go home on the same day of the operation or the following morning. The procedure is reviewed with you during the preoperative visit, along with its risks, to allow you to provide written consent for surgery.
- We see our patients preoperatively a day or so before surgery, and depending upon your age and other medical conditions, preoperative test may include blood work, an EKG, or a chest X-Ray.
- 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; if you are on **Coumadin** or **Plavix**, it is very important to review instructions regarding these medications with your surgeon. Diet medications or St. John’s Wort should not be used for two weeks prior to surgery.
- **You should not eat or drink anything after midnight the night before the operation.** If your surgeon has stated they are permissible, you may take your routine medications with a sip of water the morning of surgery. **Medications to take:**

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- You should arrange to have a friend or relative drive you home after surgery and, if going home on the day of surgery, someone should stay with you on the first night.
 - You should shower the morning of the operation, and wear loose-fitting clothing and slip-on shoes.

THE OPERATION

- The anesthesiologist will see you prior to the operation, and your surgeon will see you as well. An IV will be placed, and you will be given intravenous sedation just prior to the procedure; you will also receive IV antibiotics in the operating room.
- The procedure generally lasts about one hour, with a longer operation sometimes being needed in the case of excessive adhesions, etc.

- After surgery, you will spend approximately 45 minutes in the PACU (perianesthetic care unit, or recovery room), and then return to the outpatient surgery department or are taken to the surgical ward.
- You will be able to go home once your pain is manageable with oral pain medications, you are able to tolerate a diet, and you are free of nausea.

WHAT SHOULD I EXPECT AFTER GALLBLADDER SURGERY?

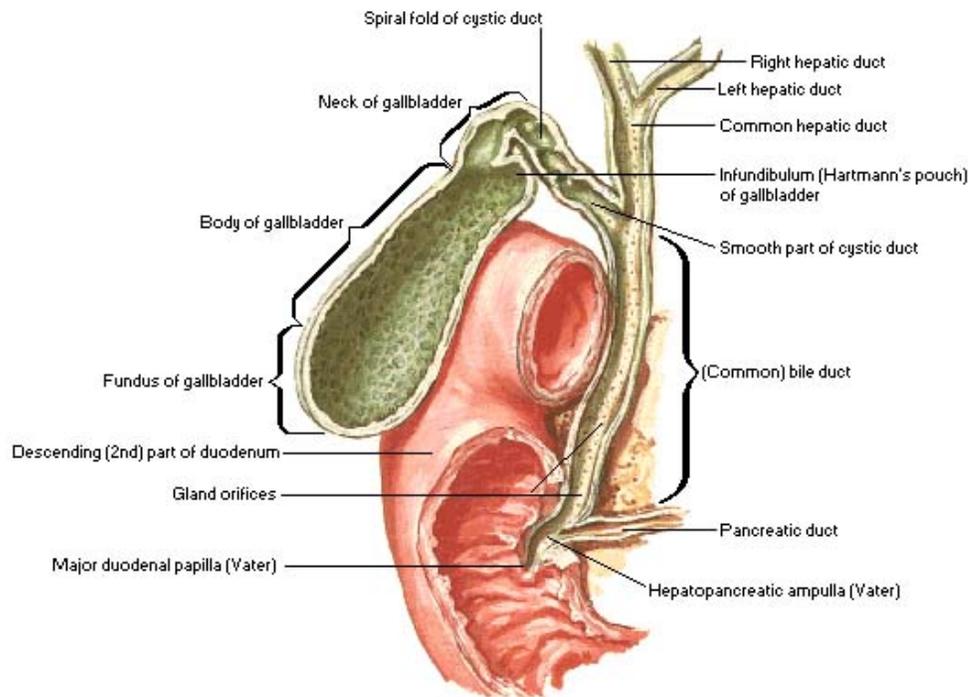
- Gallbladder removal is a major abdominal operation and a certain amount of postoperative pain occurs. Nausea and vomiting are not uncommon, but should pass quickly.
- Most patients leave the hospital the same day or day following the laparoscopic gallbladder surgery, as long as their pain is manageable and they are able to tolerate oral intake.
- Light activity is encouraged, especially walking. Patients may shower the day after surgery, but should avoid soaking their incisions for at least two weeks.
- Most patients can resume normal activities within a week's time, including driving, walking up stairs, light lifting and working. It is important, however to avoid lifting greater than 20 pounds for at least 4-6 weeks after surgery, to prevent the formation of a hernia at the umbilical incision.
- Depending on their job requirements, many patients can return to work within a week following laparoscopic cholecystectomy. Those patients whose jobs require manual labor or heavy lifting may need a bit more time off. Recovery is a bit more prolonged for those patients undergoing open cholecystectomy.

WHAT COMPLICATIONS CAN OCCUR?

- As with any operation, there are risks associated with laparoscopic or open gallbladder removal, though they are fairly infrequent.
- There is an approximately 5% chance that an open procedure will be necessary.
- Potential complications include bleeding, infection, development of blood clots, pneumonia or heart problems; patients with previously existing serious medical conditions are obviously at a higher risk for some complications.
- Injury to adjacent structures can occur during surgery, such as the common bile duct or small intestine, which may require an additional operation to repair the injury.
- Laparoscopic cholecystectomy has a slightly higher (0.5%) overall risk of bile duct injury than open cholecystectomy (0.1%). Bile duct injury requires a major open operative procedure to repair. If a patient's anatomy is unclear or abnormal during surgery, we prefer to convert to an open procedure to minimize this risk.
- Either surgery may result in leakage of bile from the liver or subsequent identification of stones in the bile duct; both are usually treated with a minimally invasive procedure called an ERCP.

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) or chills
- Significant bleeding from one of the incisions
- Increasing abdominal swelling
- Pain that is not relieved by your medications
- Persistent nausea or vomiting
- The onset of yellow eyes or skin
- 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




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