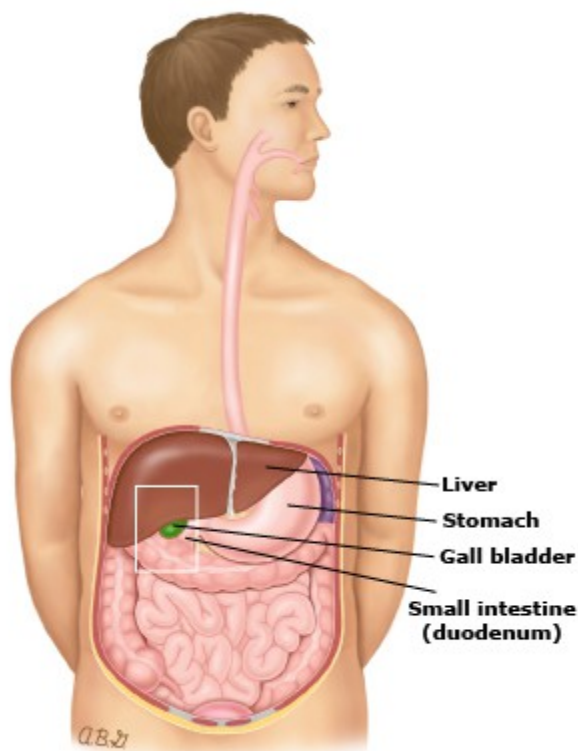
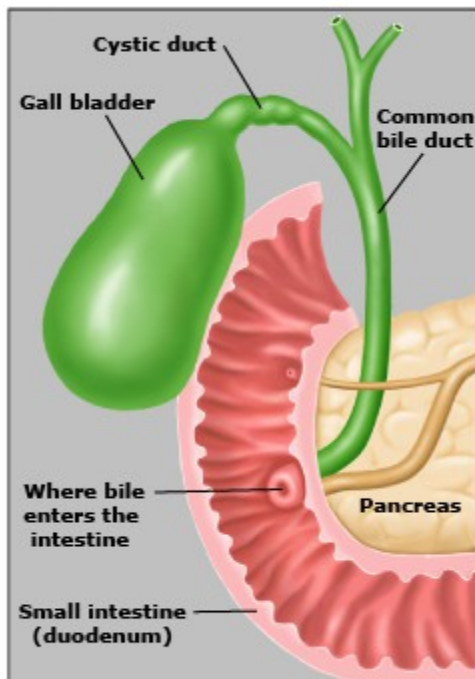


BILE DUCT STONE REMOVAL

What is the gallbladder? — The gallbladder is a small, pear-shaped organ that is tucked under your liver ([figure 1](#)).



The gallbladder (shown in green) is a small, pear-shaped organ that is tucked under the liver. It stores bile, a fluid that is made in the liver and helps the body break down fat. When you eat a meal that has fat in it, your gallbladder empties the bile into a tube called the "bile duct." The bile duct carries the bile into the small intestine to help with digestion.

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What is gallbladder removal? — Gallbladder removal is surgery to remove the gallbladder. This surgery is also called "cholecystectomy."

There are 2 main ways to remove the gallbladder:

- 1 **Laparoscopic surgery** – This means the surgeon uses a "laparoscope," a long, thin tube that has a light and a tiny camera on the end to see inside the body. (The laparoscope is sometimes called a "scope" for short). For this type of surgery, the surgeon makes a few small incisions. Then he or she inserts the scope through 1 of the incisions and other special tools through the other incisions. Next the surgeon

uses the scope and the tools to do the operation ([figure 2](#)). Most gallbladder removals in the US are done using laparoscopic surgery. Sometimes, though, open surgery is necessary because the gallbladder and bile duct are too infected or scarred to do laparoscopic surgery safely.

- ‡ **Open surgery** – This means the surgeon makes an incision in your belly big enough to do the surgery directly.

Why would a person have his or her gallbladder removed? — The most common reason is to treat gallstones. Gallstones are small stones that form inside the gallbladder. These stones can block the ducts that bile flows through. The stones can cause inflammation, pain, and other symptoms.

This article is about gallbladder removal to treat gallstones. People can also have gallbladder removal to treat cancer of the gallbladder. But if cancer is the reason for the surgery, it usually involves removing more than just the gallbladder.

What happens before gallbladder removal? — Before the surgery:

- ‡ Your doctor will order blood tests to check if your liver is working normally.
- ‡ Your doctor will order an imaging test called an ultrasound, which uses sound waves to create pictures of the inside of your body. This test will show if you have gallstones and if the bile duct is enlarged or blocked.
- ‡ If the bile duct is blocked by a stone, your doctor might order a procedure called “ERCP.” ERCP stands for “endoscopic retrograde cholangiopancreatography.” During this procedure, a doctor slides a tube called an “endoscope” down your throat. The endoscope has a tiny camera and a light on the end. The doctor advances the tube past your stomach and into your intestine to the spot where the bile duct empties into the intestine. Then the doctor injects a special dye that shows up on X-ray into the ducts that leads to the gallbladder, liver, and pancreas and takes an X-ray. That way he or she can see where the dye goes. In some cases, the doctor might also use the endoscope to remove some gallstones or widen the duct opening so that small stones can pass through.
- ‡ Your doctor might give you antibiotics through an IV (a tube that goes into a vein) to reduce the risk of infection during and after surgery.

What are the benefits of gallbladder removal? — If you have the surgery to treat gallstones, the main benefit is that it will make your symptoms go away.

What are the risks of gallbladder removal? — The risks of the surgery are low, but they can include:

- ‡ Damage to the ducts near the gallbladder and liver that carry bile
- ‡ Bile leaks

- ‡ Bleeding
- ‡ Damage to the bowels
- ‡ Infection

What will my recovery be like? — Recovery is a little different depending on whether you have laparoscopic or open surgery.

- ‡ If you have laparoscopic surgery, you will probably be able to leave the hospital the same day you have surgery. But there is some chance you will need to stay overnight. Even though the cuts on the belly are small, the operation inside was the same as if you had open surgery. Your doctor will want you to rest and avoid heavy lifting, sports, and swimming for at least a week.
- ‡ If you have open surgery, you will probably stay in the hospital for 1 to 2 days. While there, do your best to start walking as soon as possible. Also, do the breathing exercises that your doctor recommends. After you go home, you should be able to do most of your normal activities, but you should avoid heavy lifting, sports, and swimming for a few weeks.

If you are taking narcotic pain medicine during recovery, you might get constipated. Take a stool softener to prevent this problem.

If you develop any the following symptoms in the weeks after surgery, call your doctor:

- ‡ Fever or chills
- ‡ Redness or swelling around the cuts from your surgery
- ‡ Nausea or vomiting
- ‡ Cramping or more severe belly pain
- ‡ Bloating (feeling like your belly is full of gas)
- ‡ Yellow skin or eyes

Will the surgery affect how my body breaks down food? — The surgery does not affect digestion very much. But about half the people who have surgery have mild symptoms afterward, including loose bowel movements, gas, or bloating. These symptoms usually get better.