

## **What is the gallbladder?**

The gallbladder is a small storage organ located below the edge of the liver. It stores bile, which is actively concentrated there, until it is needed to assist in the digestion of fats. When food enters the small bowel, the gallbladder is stimulated to contract excreting bile into the intestine via a tube connecting the liver and intestine called the common bile duct. There it mingles with the food and helps with the digestion of fat.

## **What causes gallstones?**

Most gallstones are made up of cholesterol. Cholesterol is normally found in bile. It is insoluble in water and requires a combination of a fat and bile salts (break down products of blood cells) to stay in solution. If either of these become out of balance, the cholesterol will fall out and form stones. The size and number of stones varies for each person.

## **Symptoms of gallbladder disease**

Most people with gallstones are unaware of their presence and they may go undetected for years. However, once symptoms occur, the gallbladder should be removed to avoid serious complications. Symptoms include pain or an ache in the right upper quadrant of the abdomen that may radiate toward the right flank and shoulder after meals (especially fatty meals). The ache typically last for about 2 hours and will usually resolve (biliary colic). If a stone becomes lodged in the neck of the gallbladder, the pain may persist and will cause a more serious problem (acute cholecystitis). If a stone passes from the gallbladder it will typically become lodged in the common bile duct (tube from the liver to the intestine), causing a backup of bile into the liver and blood stream. This is clinically evident by a yellow hue to the skin, whites of the eye, and darkening of the urine. This is an emergent condition as it may lead to more serious conditions, such as pancreatitis.

## **How is gallbladder disease diagnosed?**

A physical exam often reveals tenderness in the right upper area of the abdomen, acute cholecystitis, and sometimes in biliary colic. There is usually no tenderness in chronic cholecystitis. Diagnostic tests are commonly used to document gallstones. Gallbladder disease is diagnosed by having an ultrasound and possibly a HIDA scan (nuclear medicine test).

## **What if I need surgery?**

Surgical removal of the gallbladder is the only acceptable definitive treatment for gallbladder disease. The gallbladder is typically removed via 3 small incisions and lasts 45 minutes. Most patients are discharged home the day of surgery and return to work in 1 week. The risk of complication is low, however the risks include but are not limited to infection, bleeding, and injury to the common bile duct, intestine, and surrounding organs.