



GALLSTONES

WHAT ARE GALLSTONES?

Gallstones are hardened deposits of digestive fluid that can form in your gallbladder. The gallbladder is a small pear-shaped organ on the right side of your abdomen, just beneath your liver. Bile is a digestive fluid produced in your liver and stored in your gallbladder. When you eat, the gallbladder contracts and empties bile into the small intestine (duodenum).

Gallstones range in size and some people may just develop one where others develop many at the same time.

People that experience symptoms due to gallstones typically require gallbladder removal surgery. People with no symptoms typically don't need treatment.

SYMPTOMS

- Sudden and rapidly intensifying pain in the upper right portion of your abdomen
- Sudden and rapidly intensifying pain in the center of your abdomen, just below your breastbone
- Back pain between your shoulder blades
- Pain in your right shoulder
- Nausea or vomiting

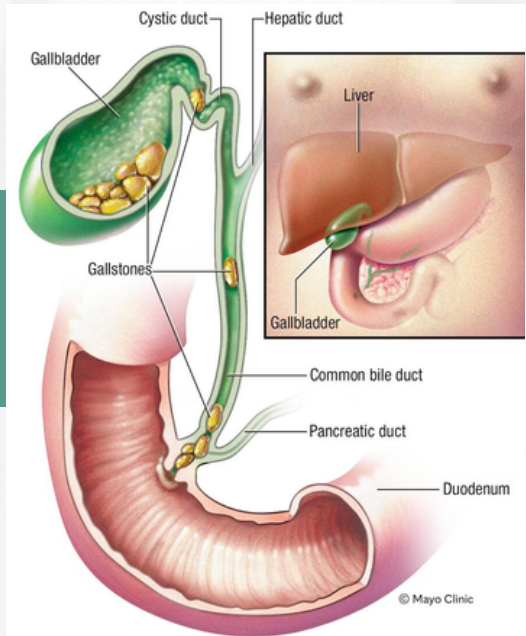
Gallstone pain may last several minutes to a few hours.

CAUSES

1. Your bile contains too much cholesterol
2. Your bile contains too much bilirubin
3. Your gallbladder doesn't empty correctly

Types of Gallstones:

- Cholesterol gallstones - most common, often yellow in color, composed mainly of undissolved cholesterol
- Pigment gallstones - dark brown or black stones formed when bile contains too much bilirubin



RISK FACTORS

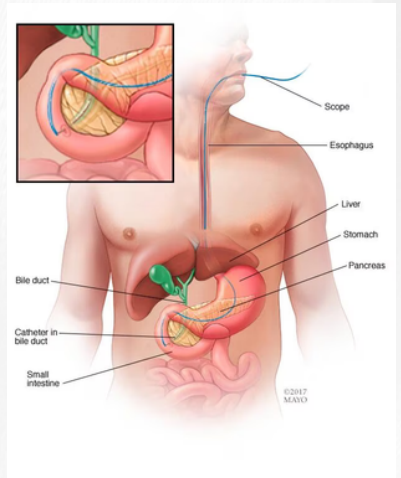
- Being female
- Age 40 or older
- Being overweight or obese
- Being sedentary
- Pregnancy
- Eating a high fat diet
- Eating a high cholesterol diet
- Eating a low fiber diet
- Family history of gallstones
- Diabetes
- Sickle cell anemia or leukemia
- Losing weight very quickly
- Medications such as oral contraceptives or hormone therapy
- Having liver disease

COMPLICATIONS

- Inflammation of the gallbladder (cholecystitis)
 - Cholecystitis can cause severe pain and fever
- Blockage of the common bile duct
 - can cause severe pain, jaundice and bile duct infection
- Blocking of the pancreatic duct
 - can lead to inflammation of the pancreas (pancreatitis) which can cause intense, constant abdominal pain
- Gallbladder cancer



GALLSTONES



PREVENTION

- Don't skip meals
- Lose weight slowly
 - Aim to lose 1 to 2 pounds a week
- Eat more high fiber foods
 - Increase intake of fruits, vegetables and whole grains
- Maintain a healthy weight
 - work to achieve a healthy weight by reducing the number of calories you eat and increasing the amount of physical activity you get.

DIAGNOSIS

- Abdominal ultrasound
 - commonly used to look for signs of gallstones. It creates an image that shows the structures in your abdomen.
- Endoscopic ultrasounds (EUS)
 - Helps to identify smaller stones
- Hepatobiliary iminodiacetic acid scan (HIDA)
- Computerized tomography (CT) scan
- Magnetic resonance cholangiopancreatography (MRCP)
- Endoscopic retrograde cholangiopancreatography (ERCP). Gallstones discovered using ERCP can be removed during the procedure.
- Blood tests (test for signs of infection, jaundice, pancreatitis or other complications)

TREATMENT

- Surgery to remove the gallbladder (cholecystectomy)
 - Once your gallbladder is removed, bile flows directly from your liver into your small intestine rather than being stored in the gallbladder
 - Removal of your gallbladder does not affect your ability to digest food, it can cause temporary diarrhea
- Medication to dissolve gallstones
 - May take months or years of treatment, and gallstones can form again if treatment is stopped

LAPAROSCOPIC CHOLECYSTECTOMY

