

## AGA Patient Education Section

### Gallstones

Gallstones are pieces of hard, solid matter that form over time in the gallbladder in some people. They form when some of the bile from your liver turns into crystals. Gallstones can range in size and amount. Some gallstones can be as small as grains of sand, and others as large as a golf ball.

#### Symptoms

Many people with gallstones have no symptoms. Some are called *silent gallstones* because they do not cause pain or issues and often do not need to be treated. However, some people do have symptoms from gallstones, such as:

- Intermittent, often severe, pain in the upper belly, often on the right side or center.
- Throwing up.
- Sweating.

#### Causes

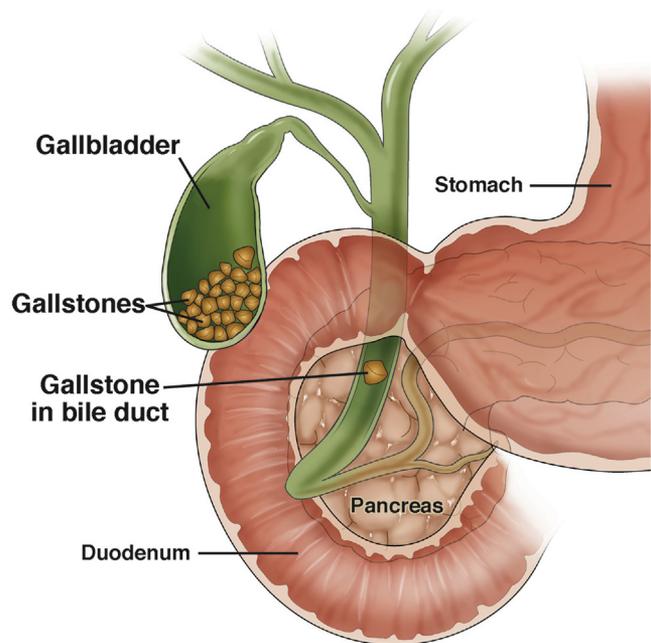
It is not fully known why some people get gallstones and others do not, but some factors that may raise the chances of getting gallstones include:

- More cholesterol or bilirubin in bile.
- Hormones or medications that result in decreased emptying of the gallbladder.
- Obesity or not having an active lifestyle.
- Being female.
- Being older than age 40 years.
- Diabetes or liver disease.
- Family history of gallstones.

Pigment (bilirubin) gallstones are found most often in patients with severe liver disease or with certain blood diseases, such as sickle cell anemia and leukemia.

#### Testing

Often, a routine liver blood test is performed. Your doctor also may perform other tests, such as:



- Abdominal ultrasound.
- Cholescintigraphy or hepatobiliary scan.
- Computerized tomography scan.
- To find stones in the bile duct, the best tests are magnetic resonance imaging scans, endoscopic ultrasound, or endoscopic retrograde cholangiopancreatography.

#### Treatment

Treatment often is not needed if there are no symptoms. If the patient has symptoms that point to gallstone disease and tests show gallstones, usually the treatment is surgery to remove the gallbladder.

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For more information on gallstones, talk to your gastroenterologist and visit <https://www.gastro.org/practice-guidance/gi-patient-center/topic/gallstones>.