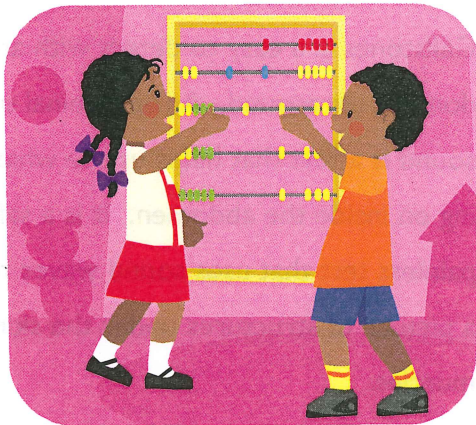


## Treatment for gallstones

Most of the time, if a child is having problems due to gallstones, we will recommend surgery to remove the gallbladder and get rid of the gallstones. This usually makes the child feel much better very quickly.

If your child is having any of these symptoms, please be sure to discuss them with your sickle cell doctor or nurse so we can order the needed test and help your child feel better faster.



### Attending Physicians

Roger Berkow, MD  
Gregory Friedman, MD  
Lee Hilliard, MD  
Thomas Howard, MD  
Jeffrey Lebensburger, DO  
Joseph Pressey, MD  
Sue Spiller, MD  
Raymond Watts, MD  
Kim Whelan, MD

### Nurses

Misty Bagwell, CRNP  
Heather Carlton, CRNP  
Heather Collins, CRNP  
Jasmine Hoggle, CRNP  
Mary Jones, RN  
Jennifer McDuffie, CRNP  
Kristen Osborn, CRNP  
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## Gallstones in Sickle Cell Disease



### UAB DIVISION OF PEDIATRIC HEMATOLOGY AND ONCOLOGY

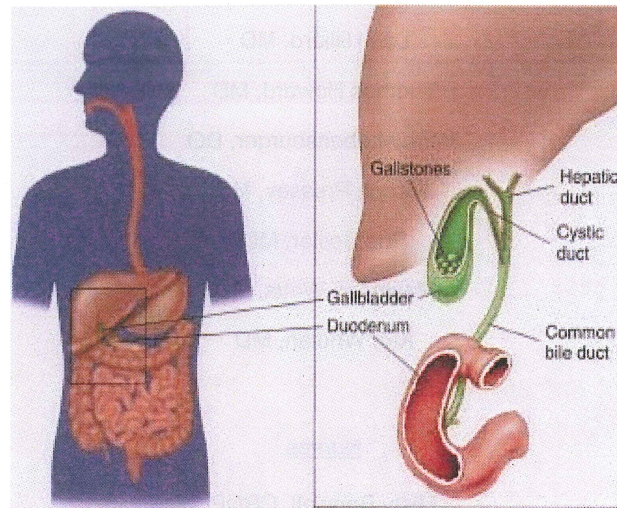
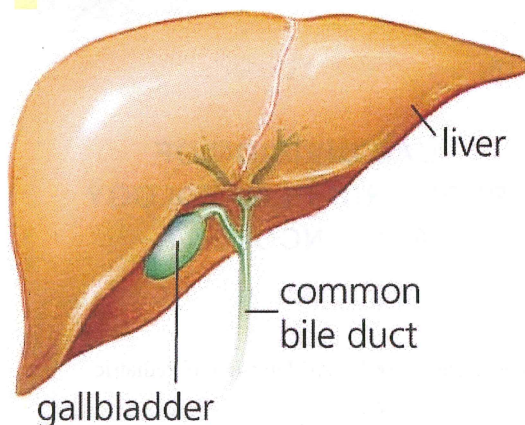
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Hematology—Oncology



# Gallstones

The gallbladder is a small pear-shaped sack that sits under the liver on the right side of the abdomen. The gallbladder stores a greenish-brown liquid called bile that is made by the liver. When a person eats food, the gallbladder squeezes the bile into the small intestine through tubes called bile ducts. Bile helps break down fatty foods.

Gallstones are pieces of solidified bile. Bile usually is a liquid, but when something changes the normal contents of bile, gallstones can form. Gallstones can form when bile contains more bilirubin than it normally does. Gallstones can range in size from very small to very large. Some people have one stone and others develop many stones.



About 1/3 of children with sickle cell disease have gallstones by the age of 7. They are caused by the rapid breakdown of red blood cells. In patients with sickle cell disease, red blood cells are not very healthy. This causes them to break open very easily. When the cells break apart, what is inside the cell spills into the bloodstream. The body has to filter out the unneeded "by-products" and get rid of them. One of these by products is called bilirubin. Sometimes, the body cannot get rid of the bilirubin fast enough and it collects in the gallbladder. If it stays in the gallbladder for a while, it can form sludge or stones.

Gallstones are usually not harmful unless they get stuck in the gallbladder duct. This blocks the bile from getting into the intestine and can cause a serious infection.

Signs and symptoms of gallstones:

- Very yellow eyes (jaundice)
- Pain on the right side of the abdomen
- Nausea and vomiting (especially after eating fatty foods)
- Right shoulder pain

## How do we know if you have gallstones?

Gallstones are easy to detect with an abdominal ultrasound. An abdominal ultrasound is a test that helps us see what is going on inside the abdomen. It is a safe and painless test that uses sound waves to make a picture of structures under the skin and muscles.