Pediatric Gallbladder Disease - A Family Resource by Dr Colin Knight MD FACS FAAP

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By Colin G. Knight, MD, FACS, FAAP Pediatric Surgeon, HCA Florida Lawnwood Hospital

A Note From Dr. Knight

Gallbladder disease used to be considered an adult problem. Over the past two decades, the number of children and adolescents with gallbladder problems has risen steadily. Many of these families are surprised by the diagnosis. This guide explains what the gallbladder does, why it causes problems in young people, how I diagnose and treat it, and what life looks like after surgery.

This guide describes general principles. Surgical decisions are individualized based on each child's specific circumstances. Please contact my office for guidance specific to your child.

What Is the Gallbladder?

The gallbladder is a small pear-shaped organ tucked under the liver on the right side of the upper abdomen. It stores bile, a fluid the liver makes to help digest fats. When food enters the small intestine, the gallbladder squeezes bile through a small duct to mix with the meal.

The gallbladder is helpful but not essential. Children and adults live healthy, normal lives after the gallbladder is removed.

Why Gallbladder Problems Are Rising in Children

Pediatric gallbladder disease was uncommon a generation ago. Today it is one of the more frequent reasons adolescents need general surgical evaluation. Several factors explain the change:

- Higher rates of childhood obesity
- Rapid weight loss in adolescents on restrictive diets
- Family history and genetic predisposition
- Certain medical conditions, such as sickle cell disease, hereditary spherocytosis, and other hemolytic disorders
- Some medications, particularly long-term ceftriaxone use

- Total parenteral nutrition in chronically ill children
- Hormonal changes during adolescence, particularly in teenage girls
- Cystic fibrosis

Even without any of these risk factors, gallbladder disease can occur. Many of the children I see are otherwise healthy.

Common Symptoms

The classic pattern is upper abdominal pain after meals, particularly after fatty or greasy food. The pain is often in the right upper part of the belly, sometimes in the middle of the abdomen, and can radiate to the right shoulder or upper back.

Other common symptoms include:

- Nausea or vomiting after meals
- Bloating or fullness
- Episodes of severe pain that last 30 minutes to several hours
- Pain that wakes a child from sleep
- Avoiding favorite foods because they cause pain
- Fatty food intolerance

When the situation is more serious, additional symptoms can appear:

- Fever
- Yellowing of the skin or eyes (jaundice)
- Dark urine and pale stools
- Persistent vomiting
- Severe constant pain

These last symptoms can indicate cholecystitis, a blocked duct, or pancreatitis. They need urgent evaluation.

Conditions I Treat

Gallstones (cholelithiasis) Hardened deposits of cholesterol or pigment that form inside the gallbladder. Many gallstones cause no symptoms, but when they do, they typically produce the pain pattern described above. Symptomatic gallstones in children are an indication for surgery.

Cholecystitis Inflammation of the gallbladder, usually because a stone is blocking the outflow. This often presents with persistent pain, fever, and tenderness. It usually requires admission, antibiotics, and surgery.

Biliary dyskinesia The gallbladder does not contract properly even though no stones are present. Children have classic gallbladder-type pain and a low gallbladder ejection fraction on a special imaging study (HIDA scan). Selected patients benefit from gallbladder removal.

Choledocholithiasis A stone has passed out of the gallbladder and lodged in the bile duct. This can cause jaundice and pancreatitis and may require an endoscopic procedure (ERCP) before or after gallbladder removal.

Hemolytic disease related gallstones Children with sickle cell disease and other red blood cell disorders form pigment stones. Even when these stones are not actively causing symptoms, I sometimes recommend gallbladder removal during a planned hospitalization to prevent future problems.

How I Diagnose Gallbladder Disease

Diagnosis starts with the child's story and a physical exam. The most useful next step is an ultrasound of the right upper abdomen. Ultrasound is excellent at showing gallstones, gallbladder wall thickening, and signs of inflammation. It uses no radiation, which matters in children.

Other tests I sometimes use:

- Blood work to check liver function, bilirubin, and pancreatic enzymes
- HIDA scan to measure gallbladder function, especially when ultrasound is normal but symptoms are classic
- MRCP, a special MRI of the bile ducts, when there is concern for stones in the ducts
- CT scan in selected cases

In adolescent girls of childbearing age, I always check a pregnancy test before imaging.

Treatment

The treatment for symptomatic gallbladder disease in children is removal of the gallbladder, called cholecystectomy. I perform almost all of these operations laparoscopically.

Laparoscopic cholecystectomy in children I make four very small incisions, insert a camera and instruments, and remove the gallbladder. The operation typically takes 45 to 90 minutes. Most children go home the same day or the morning after surgery.

Benefits of the laparoscopic approach:

- Small scars
- Less pain
- Faster recovery
- Quicker return to school and sports
- Lower risk of wound infection

In selected cases, particularly when there is severe inflammation, scarring, or unclear anatomy, I may need to convert to an open operation. This is uncommon in pediatric patients.

What to Expect on the Day of Surgery

You will receive specific instructions about eating and drinking before surgery. General anesthesia is used. An anesthesiologist will meet with you and your child before the operation.

After surgery, your child will spend some time in the recovery area. Once they are alert, comfortable, and able to drink, I either discharge them home that day or keep them overnight if needed. Most children with uncomplicated gallstone disease go home the same day.

Recovery at Home

Pain control As part of the operation, I administer long-acting local anesthesia directly at the incision sites. This pre-emptive numbing means your child wakes up comfortable and stays comfortable through the early hours when pain would otherwise be at its peak. Once the local anesthesia wears off, most children do well with alternating acetaminophen and ibuprofen for the first 1 to 3 days. Shoulder discomfort is common after laparoscopic abdominal surgery because of the gas used to inflate the abdomen during the operation. This goes away in 1 to 2 days. I do not prescribe stronger pain medications for cholecystectomy.

Wound care I close the four small incisions with dissolving sutures under the skin and cover them with waterproof dressings. You do not need to do anything special with the wounds. Your child can shower right away. Do not submerge in pools, baths, hot tubs, or open water for the first week after surgery.

Activity I do not restrict activity after a laparoscopic cholecystectomy. Your child can return to normal play and sports as soon as they feel ready. The only restriction is that children should stay home from school while they still need pain medication. A child in pain is not at their best for school, and a child still taking medication is not ready to be there.

Dietary Considerations After Gallbladder Removal

The gallbladder stores and concentrates bile, but the liver still makes bile after the gallbladder is gone. Most children adjust without any problem and eat a completely normal diet.

A small number of children have looser or more frequent stools, especially after very fatty meals, in the first few weeks or months. This usually improves on its own. Practical tips that help:

- Eat smaller, more frequent meals at first
- Limit very greasy or fried foods for the first few weeks
- Include fiber-rich foods such as fruit, vegetables, and whole grains
- Drink plenty of water
- Reintroduce favorite foods gradually

If loose stools are persistent and bothersome, simple medications can help. Long-term dietary restrictions are almost never necessary.

Recovery Timeline

- **Day of surgery:** Sleepy, light eating, walking around the house.
- **Days 1 to 3:** Sore at the incision sites, shoulder discomfort fading, light activity, eating most foods. Tylenol and ibuprofen as scheduled. Stay home from school while pain medication is still needed.

- **Days 4 to 7:** Most children are off pain medication and back to school and normal activity. No restrictions on sports, play, or showering.

Follow-up visit: 2 to 4 weeks after surgery in my office.

When to Call My Office

Call my office at (772) 462-3939 if you notice any of the following after surgery:

- Fever over 101 degrees Fahrenheit
- Increasing pain instead of improving pain
- Yellowing of the skin or eyes
- Dark urine or very pale stools
- Persistent vomiting
- Redness, warmth, or drainage from the incisions
- Severe right upper abdominal pain that returns after recovery
- Any concern that is not answered here

For anything that feels urgent, go to the nearest emergency department.

Final Thoughts

Gallbladder disease in children and adolescents is more common than it used to be, and it is very treatable. Laparoscopic gallbladder removal is one of the most reliable operations in modern pediatric surgery, and the vast majority of children are back to their normal lives within a couple of weeks. If your child has been told they have gallstones or gallbladder disease, I am available to answer your questions anytime.

This educational resource is provided for general information and does not replace individual medical advice. Please contact my office for guidance specific to your child.