

Helicobacter Pylori

What is *Helicobacter pylori*?

Helicobacter pylori (*H. pylori*) is a bacterium that infects the stomach. The infection is very common throughout the world and in the United States.

H. pylori is the most common cause for peptic ulcer disease (sores in the stomach and first part of the small intestine, which is called the duodenum). *H. pylori* can also cause irritation of the stomach lining (gastritis).

Untreated *H. pylori* infection can rarely lead to certain stomach cancers.

What are the signs and symptoms of *H. pylori* infection?

Most people with *H. pylori* do not experience any symptoms. When the infection does cause symptoms, they are usually from irritation of the stomach lining or ulcers.

Upper abdominal pain, nausea, vomiting, frequent burping, poor appetite, weight loss, and bloating are some symptoms.

More severe symptoms can occur with peptic ulcer bleeding, resulting in vomit that is bloody or looks like coffee grounds (hematemesis), bloody stools that look like black tar (melena), or the ulcer forming a hole through the stomach or duodenum wall (perforation).

Some children with chronic *H. pylori* infection also have iron deficiency anemia.

What causes *H. pylori* infection?

Health experts are not sure how *H. pylori* spreads. It is thought to pass from one person to another through direct contact with saliva (kissing), vomit, and fecal matter.

It can also spread through unclean food and water that is infected. Living in crowded or unsanitary conditions may increase the risk of *H. pylori* infection.

The spread of *H. pylori* infection may be prevented by:

- Washing your hands after using the restroom or before eating.
- Eating clean and safely cooked food and drinking clean water.



How is *H. pylori* tested?

Healthcare providers can diagnose *H. pylori* infection with the following tests:

- **Upper endoscopy** (also known as esophagogastroduodenoscopy, or EGD): This is the preferred test if peptic ulcer disease and *H. pylori* infection are strongly suspected. It enables your doctor to directly look at your child's stomach and duodenum lining and get tissue samples (biopsy) from the lining. Tissue samples can be tested for presence of the bacteria and can be used to test which antibiotics will treat the infection.
- **Urea breath test:** For this test, your child blows into a bag after drinking a solution. The collected breath is then checked for a certain chemical that indicates if the bacteria are present. This test may be difficult to perform in younger children.
- **Stool antigen test:** This test looks for the presence of *H. pylori* protein in your child's stool sample.

Acid-reducing medicines called proton pump inhibitors (such as omeprazole, esomeprazole, lansoprazole), bismuth (such as Pepto-Bismol), and antibiotics may affect the accuracy of the breath test and stool test. Your healthcare provider will ask your child to stop taking these medications for two weeks before the test.

While breath and stool tests are not invasive and are easy to perform, they only indicate if *H. pylori* is present and do not determine the severity of infection. Blood testing is also available but no longer recommended.

How is *H. pylori* infection treated?

H. pylori infection is treated with a combination of antibiotics to kill the bacteria, acid-blocking medications, and stomach lining protectors (bismuth medicines such as Pepto-Bismol) to help heal the ulcers and reduce irritation in the stomach and duodenum.

The most commonly used antibiotics are amoxicillin, metronidazole, clarithromycin, and tetracycline. Treatment usually lasts for 14 days. Your child's specific treatment may be based on standard guidelines or based on results of a biopsy and culture, which determine the best antibiotics.

Regardless of the treatment your doctor selects for your child, it is very important to complete the entire treatment. Not completing the full treatment can lead to difficulty getting rid of the bacterial infection.

Even after treatment, it can take weeks to months for your child's symptoms to fully disappear.

It is important that your child be re-tested a few weeks after treatment to make sure the infection is gone. This is usually done with a urea breath test or stool antigen test.

Jubin Mathews, April 2019

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IMPORTANT REMINDER: This information from the North American Society for Pediatric Gastroenterology, Hepatology and Nutrition (NASPGHAN) is intended only to provide general educational information as a definitive basis for diagnosis or treatment in any particular case. It is very important that you consult your doctor about your specific condition.



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