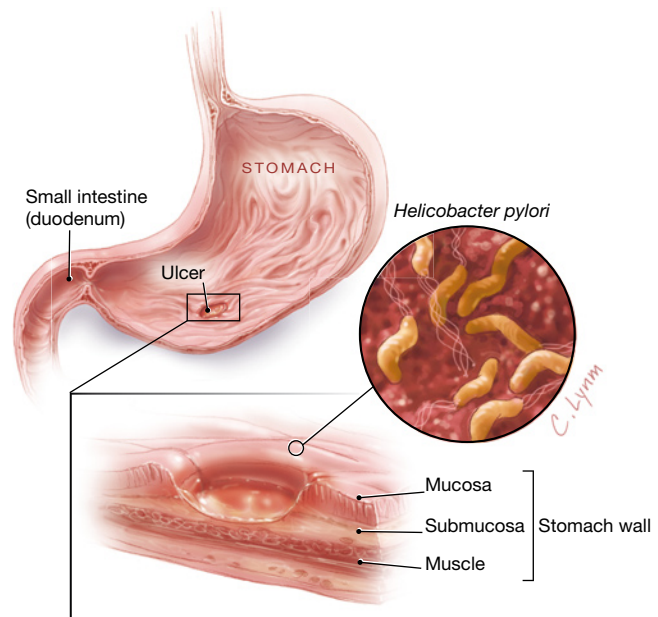


# Helicobacter pylori

**H***elicobacter pylori* (*H pylori*) is a common bacterium that is present in millions of people worldwide. In the United States, more than 50% of people older than 60 years are affected. *Helicobacter pylori* is found in the mucous lining of the stomach. It is known to be responsible for 60% to 80% of **gastric** ulcers (those occurring in the stomach) and 70% to 90% of **duodenal** ulcers (those occurring in the first part of the small intestine). The recognition of an association between this bacterium and **peptic** ulcer disease (occurring in the stomach or duodenum) by Dr Barry J. Marshall and Dr John R. Warren, both from Australia, was made in 1983, and they were awarded the Nobel prize in **physiology** (how the body works internally) and medicine in 2005. It is now understood that peptic ulcer disease is not caused by stress or by eating foods high in acid. It is often caused by the *H pylori* bacterium. Although the infection typically is acquired in childhood, it may continue without any problem throughout a person's lifetime. Only 15% to 20% of those who carry this bacterium ever develop symptoms related to an ulcer. Treatment is recommended only for people who have an ulcer as a consequence of the bacterium's presence. Treatment is important because people who have ulcers tend to have recurrent problems, and eliminating the *H pylori* infection prevents relapses. Patients infected with *H pylori* are more likely than others to develop certain types of cancer of the stomach, so testing and treatment for *H pylori* infection is recommended in patients with a family history of gastric cancer. This issue of *JAMA* includes a Commentary about a new treatment option for *H pylori*.



## SYMPTOMS AND SIGNS OF A PEPTIC ULCER

- Burning abdominal pain, often occurring on an empty stomach and relieved by eating food or taking antacids
- Vomiting blood
- Tiredness due to **anemia** (low blood count) caused by blood loss from a bleeding ulcer
- Black stools—a sign of internal bleeding

## DIAGNOSIS

- Blood test to look for an immune response as evidence of exposure to the bacterium
- **Urea breath test**—A compound made when proteins are broken down, in this case by the *H pylori* bacterium, can be detected by a breath test to measure specially labeled carbon dioxide and confirm the presence of the bacterium in the body.
- **Endoscopy**—Looking inside the stomach and duodenum with a sterilized thin flexible tube that has a light at one end allows the doctor to see through the other end and to take **biopsies** (small pieces of tissue obtained through the tube). The biopsies can be tested for *H pylori*.
- **Culture** (induced growth in the laboratory) of the *H pylori* bacterium from a biopsy specimen

Source: Centers for Disease Control and Prevention

Carolyn J. Hildreth, MD, Writer

Cassio Lynn, MA, Illustrator

Richard M. Glass, MD, Editor

The JAMA Patient Page is a public service of JAMA. The information and recommendations appearing on this page are appropriate in most instances, but they are not a substitute for medical diagnosis. For specific information concerning your personal medical condition, JAMA suggests that you consult your physician. This page may be photocopied noncommercially by physicians and other health care professionals to share with patients. To purchase bulk reprints, call 312/464-0776.

## TREATMENT

There are several antibiotic regimens known to be effective, each taken by mouth for 10 days to 2 weeks as directed by your physician to eliminate *H pylori* from the stomach.

## FOR MORE INFORMATION

Centers for Disease Control and Prevention  
[www.cdc.gov/ulcer/keytocure.htm](http://www.cdc.gov/ulcer/keytocure.htm)

## INFORM YOURSELF

To find this and other JAMA Patient Pages, go to the Patient Page link on JAMA's Web site at [www.jama.com](http://www.jama.com). Many are available in English, Spanish, and French. A Patient Page on peptic ulcers was published in the October 24/31, 2001, issue.

