

# Peptic Ulcers

(*Helicobacter pylori*)

## Questions and Answers

### FACTS ON PEPTIC ULCERS

A peptic ulcer is a sore on the lining of the stomach or the duodenum (the first part of the small intestine just below the stomach). The leading cause of peptic ulcers is a bacterium known as *Helicobacter pylori* (*H. pylori*); a secondary cause is traceable to the long-term use of nonsteroidal anti-inflammatory agents, such as aspirin and ibuprofen. Contrary to popular belief, it is now known that peptic ulcers are not caused by spicy food or stress.

**Q: What is the *H. pylori* bacterium, and how prevalent is it?**

**A:** *H. pylori* is a spiral-shaped bacterium frequently found in the gastric mucous layer adherent to the epithelial lining of the stomach. The *H. pylori* bacterium survives in the stomach by secreting an enzyme that neutralizes stomach acid. This, in turn, enables the bacterium to make its way into the mucous layer or epithelial lining where the combined bacterium and acid often trigger an irritation that results in inflammation and/or an ulcer. The *H. pylori* bacterium is responsible for more than 90 percent of diagnosed duodenal ulcers and more than 80 percent of diagnosed gastric ulcers. It is also involved in the development of gastric adenocarcinoma and lymphoma (cancers).

An estimated two-thirds of the world's population is currently infected with the *H. pylori* bacterium. The annual incidence of symptomatic peptic ulcer disease in the United States is now approaching two percent of the population, with 500,000 to 800,000 new cases diagnosed each year.

This information is not intended to provide specific medical or professional advice. Your physician should provide definitive medical advice, as well as answers to your medical-related questions.

### RESOURCE SUPPORT

For additional information about the *H. pylori* bacterium, gastric disorders and gastric cancer, the following resources are available:

**The American Gastroenterological Association**

301/654-2055  
[www.gastro.org](http://www.gastro.org)

**American Digestive Health Foundation**

301/654-2635  
[www.gastro.org/adhf](http://www.gastro.org/adhf)

**Center for Disease Control**

888/MY-ULCER (888/698-5237)  
[www.cdc.gov/ncidod/dbmd/hpylori.htm](http://www.cdc.gov/ncidod/dbmd/hpylori.htm)

**Associated Pathology Medical Group, Inc. (APMG)**

[www.apmglab.com](http://www.apmglab.com)

APMG is the longest standing independent pathology practice in Silicon Valley. Our group consists of eight pathologists at two practice sites: Los Gatos and Santa Cruz, serving physicians throughout California. Our pathologists are outpatient and inpatient specialists that produce accurate, diagnostic reports within 24 hours in most instances. Abnormal cases are routinely peer-reviewed.



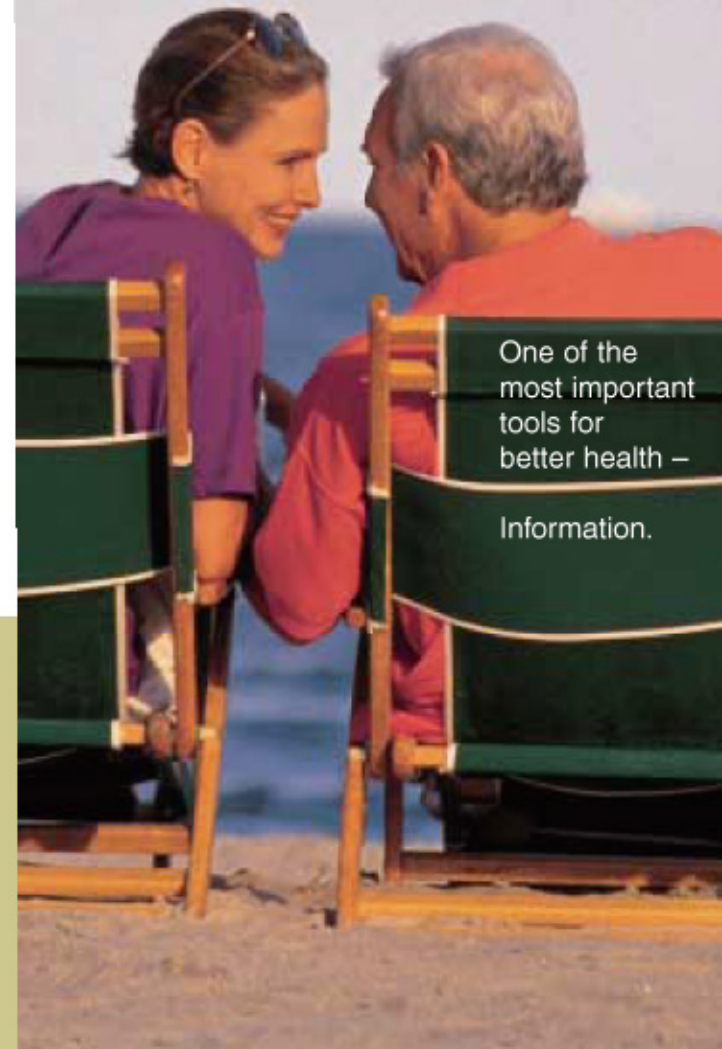
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One of the most important tools for better health –  
Information.

Knowledge is power.



**Q: How do people become infected with the *H. pylori* bacterium, and can infections be prevented?**

**A:** It is unknown how the *H. pylori* bacterium is transmitted and why some patients become symptomatic while others do not. Generally, people are infected with a bacterium through person-to-person contact or via the ingestion of contaminated food or water.

Since the source of the *H. pylori* bacterium remains unknown, there are no specific recommendations to avoid infection. Generally, people should always wash their hands before eating, eat only properly prepared foods and drink water from a safe, clean source.

**Q: What illness does *H. pylori* cause?**

**A:** Most people infected with the *H. pylori* bacterium never experience any symptoms related to the infection. While the specific role of the *H. pylori* bacterium remains unclear, infected persons may experience abdominal discomfort (dyspepsia) as well as duodenal and gastric ulcers. Infected people have a two-to-six fold increased risk of developing gastric adenocarcinoma and lymphoma (cancers).

**Q: What are the symptoms of the *H. pylori* bacterium infection?**

**A:** Pain, the most common symptom, usually:

- is manifested by a dull, gnawing ache
- comes and goes for several days or weeks
- occurs two-to-three hours after a meal
- occurs in the middle of the night when the stomach is empty
- is relieved by the ingestion of food

Less common symptoms include nausea, vomiting, loss of appetite, bloating and burping.

**PATHOLOGY TESTING**

**Q: How is the *H. pylori* bacterium diagnosed?**

**A:** Once your symptoms have been identified, your doctor may begin to determine their cause by evaluating your medical history, performing a physical examination and ordering laboratory studies. Although several test methods are now available to diagnose the presence of the *H. pylori* bacterium, the histological identification of the organism (or another gastric condition) via the tissue biopsy procedure remains the most definitive choice. Your physician may perform an examination utilizing an endoscope -- a thin, lighted tube equipped with a tiny camera. Using a local anesthetic, the physician passes the endoscope through the mouth to view the interior linings of the esophagus, stomach and duodenum. The endoscope permits the photographing of suspicious areas as well as the actual removal of tissue samples for subsequent laboratory evaluation. The tissue samples are then sent to a diagnostic laboratory for evaluation by a pathologist -- a physician who, via microscopic examination, specializes in the diagnosis of disease.

If the *H. pylori* bacterium or another gastric condition is discovered, the pathologist can then assist your physician in determining the existence of dysplasia (precancerous changes) or cancer (including lymphoma).

Additional tests that determine if the *H. pylori* bacterium is present include:

- Serological (blood) tests, which are especially useful for past infections
- Breath tests, which are useful in monitoring treatment progress
- Biopsy urease tests
- Bacterial culture of biopsy specimens

**TREATMENT OPTIONS**

**Q: Do I have a choice of treatment?**

**A:** Peptic ulcers are treated with a combination of drugs, including antibiotics, to kill bacteria, and acid suppressors, to reduce stomach acid and protect the stomach lining.

Your physician will determine the most appropriate treatment based upon a number of factors, such as age, the size and location of the ulcer, the stage of the disease and your general health. You may also have concerns regarding the treatment process and potential side effects; therefore, it is essential that you and your doctor discuss all available options leading to the development of a treatment plan that is specifically tailored to your needs and circumstances.



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