



## UNDERSTANDING PEPTIC ULCERS

### Overview

A peptic ulcer is a sore in the lining of the bowel in the stomach or the upper part of the small intestine (duodenum). For many years it was thought that stress or certain foods caused ulcers. It is now known that most ulcers are caused by a bacterium (germ or bug) called *Helicobacter pylori* (*H. pylori*) that infects the stomach. Infection usually first occurs in childhood. Currently, it is not known how *H. pylori* causes ulcers and this is an area of intense research interest.

It is estimated 8 to 10 million people are infected with *H. pylori*. Men have a higher rate of *H. pylori* infection than women and the rate of infection increases considerably with age. About 10-15% of infected adults will develop ulcers. Children infected with the bug rarely develop ulcer disease. In First Nation communities, approximately 75% of the people are infected.

*H. pylori* infection is considered to be a carcinogen by the World Health Organization as it is associated with the development of stomach cancer. Medications for treating *H. pylori* are 80 — 90% effective.

### How do I know if I have an ulcer?

Symptoms are not always the same if you have an ulcer. Some of the various symptoms listed below may occur with an ulcer.

- upper abdominal pain (which may feel worse when fasting and be relieved by eating a meal)
- vomiting (the vomitus may contain blood)
- loss of weight
- loss of appetite
- black, tarry stools (due to bleeding from the ulcer)
- lethargy or tiredness

If you are concerned that you may have an ulcer, you should consult with your physician.

### Tests and diagnoses

The tests available that can diagnose whether or not you have an ulcer include:

#### (1) Endoscopy

This is the most accurate test for ulcers. A flexible tube with a light and video camera on the end is inserted into the mouth and passed into the stomach and duodenum. Ulcers in the stomach or duodenum can be seen directly with the

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camera during this safe procedure. In addition, biopsies (tissue samples) can be taken for further study.

### (2) Upper Gastrointestinal X-ray

During this special X-ray, the patient drinks barium or a similar substance that outlines the inside of the swallowing tube (esophagus), stomach and duodenum. Ulcers are detected as defects in the barium that coats the lining of the stomach or duodenum. This test is not always accurate in showing ulcers, especially in children.

### *How do I know if my ulcer is due to *H. pylori* infection?*

There are several tests available to determine if you have *H. pylori* infection.

#### (1) Endoscopy and biopsy

During the endoscopy procedure (outlined above) a very small piece of the stomach lining (biopsy) is taken. The bacteria can be detected by a chemical test on this tissue sample or by looking under the microscope. In some centers the bacteria can also be cultured from the biopsy.

#### (2) Breath test

During this test the patient drinks a solution containing a compound called urea. If *H. pylori* is present in the stomach it can break down the urea in the solution to produce carbon which has been specially labeled. The carbon is carried to the blood and then exhaled in the breath. The patient's breath is collected and the amount of labeled carbon can be measured to detect infection.

#### (3) Antibody test

Similar to other infections, antibodies (special proteins) are made against *H. pylori* following infection. These antibodies can be measured in the blood to diagnose exposure to the bacteria.

However, they persist for years after successful treatment and therefore cannot be used to prove that the bacteria have been killed.

### *How are peptic ulcers treated?*

Acid suppressing drugs can heal ulcers, however, if *H. pylori* is still present, the ulcers will come back. Therefore, the best treatment involves getting rid of the infection as well. Currently, the recommended treatment involves a combination of two antibiotics and an acid-suppressing drug. This treatment is very successful in getting rid of infection.

An effective vaccine to prevent *H. pylori* infection in humans is not available. Researchers are actively working on the development of such a vaccine.

### *More information*

For more information about protecting and enhancing your digestive health, please visit [www.CDHF.ca](http://www.CDHF.ca)

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- Please send me information about protecting and improving my digestive health.

Over 20 million Canadians suffer from digestive disorders every year. The Canadian Digestive Health Foundation believes this is unnecessary and unacceptable.

We reduce suffering and improve quality of life by empowering Canadians with trusted, up to date, science-based information about digestive health and disease.

As the Foundation of the Canadian Association of Gastroenterology, we work directly with leading physicians, scientists, and other health care professionals to help you understand and take control of your digestive health with confidence and optimism.

Through research and public education, we aim to:

 <p><b>REDUCE</b> the incidence and prevalence of digestive disorders</p>	 <p><b>IMPROVE</b> understanding of digestive health issues</p>
 <p><b>SUPPORT</b> those suffering from digestive disorders</p>	 <p><b>ENHANCE</b> quality of life for those living with digestive disorders</p>

### Request for support

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### Contact us/Donate to

Canadian Digestive Health Foundation  
1500 Upper Middle Road, Unit 3,  
PO Box 76059, Oakville, ON L6M 1G0  
Tel and Fax: 905-829-3949  
info@CDHF.ca