HELICOBACTER PYLORI

Introduction
*Helicobacter pylori* (*H. pylori*) is a spiral bacterium which is a cause of some peptic and duodenal ulcers in humans and which is found in some cats\(^1\).

What is Helicobacter pylori?
*H. pylori* is a spiral-shaped bacterium that is found in the gastric mucous layer or adherent to the epithelial lining of the stomach. *H. pylori* causes more than 90% of duodenal ulcers and up to 80% of gastric ulcers. Before April 1982, when this bacterium was first cultured in Perth, Western Australia, spicy food, acid, stress and lifestyle were considered to be the major causes of ulcers. The majority of patients were given long-term medications, such as H2 blockers, and more recently, proton pump inhibitors, without a chance of permanent cure. It is now known that most ulcers are caused by *H. pylori* and appropriate antibiotics can eradicate the infection in most patients, with complete resolution of mucosal inflammation and a minimal chance for the recurrence of ulcers.

Infection in Cats
There are two other strains of spiral bacteria, *H. heilmannii* and *H. felis*, present in cats which can be easily confused with *H. pylori*. *H. heilmannii* has also been found in human beings and is suspected of being a zoonosis, although it is rare. Both *H. heilmannii* and *H. pylori* infections can be easily prevented through simple hygiene measures.

Infection in Humans
Approximately two-thirds of the world’s population is infected with *H. pylori*. Most people who are infected with *H. pylori* never suffer any symptoms related to the infection; however, *H. pylori* can cause chronic active, chronic persistent and atrophic gastritis in adults and children. Infection with *H. pylori* also causes duodenal and gastric ulcers. Infected persons have a two to six fold increased risk of developing gastric cancer and mucosal-associated-lymphoid-type (MALT) lymphoma compared with their uninfected counterparts.
**Infection in Humans**

It is not known how *H. pylori* is transmitted or why some patients become symptomatic and others do not. The bacteria is most likely spread from person to person through faecal-oral or oral-oral routes.

The search for other animal or environmental reservoirs has been met with generally disappointing results. Some data suggesting domestic cats as being able to carry *H. pylori* has been found but it is widely believed that this cannot infect humans\(^1\).

**Diagnosis**

Several methods may be used to diagnose *H. pylori* infection. Serological tests that measure specific *H. pylori* IgG antibodies can determine if a person has been infected. The sensitivity of these assays range from 80% to 95% depending on the assay used. Another diagnostic method is the breath test. In this test, the patient is either given 13C or 14C labelled urea to drink. *H. pylori* metabolises the urea rapidly and the labelled carbon is absorbed. This labelled carbon can then be measured for carbon dioxide in the patient’s expired breath to determine whether *H. pylori* is present.

**Treatment and Prevention in Humans**

*H. pylori* is a bacterium, and in humans it should respond to antibiotics. Unfortunately, the bacteria have proved very difficult to clear from the human stomach. This is probably because it is hard to get high concentrations of an antibiotic into the mucus that lines the stomach. Most treatments involve swallowing several types of tablet simultaneously for 7-8 days. These will include one or two antibiotics and also a drug that controls acid secretion and/or contains bismuth\(^2\).

Almost all *H. pylori* infections can be eradicated if the course of treatment is completed. However, the treatment may cause a range of side effects – particularly abnormal taste, nausea or mild diarrhoea\(^3\).
**Conclusion**

The Pet Health Council would like to reassure cat owners that there is no need to worry, although we do advise that cat owners continue to use normal hygiene routines for handling their pets, such as washing their hands before preparing or eating food and keeping cats away from food preparation areas.

**Pets are Good for People**

Pets provide us with loyalty, companionship, love and affection, as well as the many physical and psychological benefits. The least we can do to repay this is to ensure that we keep them in the best of health. A healthy pet is a happy pet and a happy pet can help us enjoy a much fuller and more rewarding life.

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**References**


   Also:

   Eaton, K.A., Gastric Bacteria in Dogs and Cats, (A Publication of Ralston Purina Company), Department of Veterinary Biosciences, Ohio State University

2. Digestive Disorders Foundation, November 2000


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