

## What to expect after treatment

### Peptic Ulcer

**Duodenal ulcer.** Eradicating *Helicobacter pylori* infection will permanently cure the ulcer in more than 90% of people. If the symptoms were due to other co-existing conditions such as acid reflux, they may persist and need continuing therapy with acid-reducing drugs.

**Gastric ulcer.** Eradicating *Helicobacter pylori* infection will permanently cure most gastric ulcers.

As peptic ulcers can also be due to taking aspirin and anti-inflammatory drugs, eradicating the *Helicobacter pylori* will not cure ulcers caused by these drugs.

**Gastritis.** Symptoms may not disappear after treatment for *Helicobacter pylori*. It is not possible to predict who will respond to therapy. Treatment is usually offered to all because even though symptoms may not improve, eradication of the bacteria may prevent development of ulcers and eliminate one risk factor for stomach cancer.

For more information on this or other related topics contact **The Gut Foundation**

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# bacteria and ulcers

## What is *Helicobacter pylori*?

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## *Helicobacter pylori*

### What is it?

*Helicobacter pylori* is a common bacterial infection that affects the stomach.

Its association with disorders of the stomach was first discovered in Australia in the early 1980s, and was a major breakthrough in understanding and treating peptic ulcer.

Until that time, peptic ulcer was thought to be due to excessive acid in the stomach. The treatment then was to give drugs that reduced the stomach's acid production. This is still effective treatment.

However, the discovery that eliminating the *Helicobacter pylori* bacteria cured the ulcer in most people meant that many persons no longer needed to keep taking drugs to reduce stomach acid.



## Where does it come from?

*Helicobacter pylori* is one of the most common bacterial infections throughout the world. No one is completely sure how it spreads but, it passes between individuals and the most likely route is hand to mouth. It runs in families and is more common in spouses but is not transmitted by sexual intercourse.

It is more common in densely populated areas, affects men and women equally, and occurs in children, especially in developing countries.

## How common is it?

In Australia, *Helicobacter pylori* infection is often acquired in late childhood. However, as in other developed countries infection with *Helicobacter* is decreasing, perhaps due to improved hygiene. As a result, 1 in 3 Australians aged 60 have *Helicobacter pylori* infection in contrast to 1 in 10 of those aged 30 or less.



## Symptoms

In most people, there are no symptoms. Those who do have symptoms may experience indigestion, abdominal pain, nausea, bloating and burping.

The most common symptom is indigestion. However, having the *Helicobacter pylori* bacteria doesn't necessarily mean you will have indigestion, and having indigestion due to too much acid doesn't necessarily mean you have the bacteria. Each of these can also have other causes.

## Diseases due to helicobacter pylori infection

### Inflammation of the stomach (gastritis).

At the time of infection, there may be acute symptoms of nausea, vomiting and indigestion. Later, when the inflammation becomes chronic, symptoms may be mild or non-existent. The gastritis usually disappears if the infection is successfully treated.



### Peptic ulcer

**Duodenal ulcer.** *Helicobacter pylori* is the major cause of this disease. Symptoms include indigestion and upper abdominal pain. Occasionally there may be bleeding. Successful treatment of the *Helicobacter pylori* infection allows the ulcer to heal and usually prevents recurrence so that other treatment is no longer necessary.

**Gastric ulcer.** *Helicobacter pylori* is the main cause of this disease. The other common causes are aspirin and other drugs used for treating arthritis. Symptoms are similar to those of duodenal ulcer.



*The number of ulcers not due to Helicobacter infection is increasing. The commonest causes now are aspirin and arthritis drugs. The presence of Helicobacter increases the risk of ulcers developing with these medications. Additional therapy with aspirin, warfarin and blood thinning agents increases the risk of bleeding.*



## Cancer

### Gastric (stomach) cancer.

*Helicobacter pylori* is one factor in the development of stomach cancer. Other factors such as family history and diet are also likely to be involved.

Even though *Helicobacter pylori* is common in Australia today, stomach cancer is not.

Symptoms may resemble those of ulcer, but there may also be nausea, loss of appetite and weight loss.

**Lymphoma.** This is a much less common malignancy of the stomach and *Helicobacter pylori* infection is usually present. Symptoms are similar to those of peptic ulcer. Successful treatment of the *Helicobacter pylori* infection may cure the lymphoma.

## How is it diagnosed?

There are 3 possible tests: a blood test, a breath test and a biopsy test.

**Blood test. (serology).** This measures an antibody to the *Helicobacter pylori* bacteria. It doesn't distinguish between ulcers, cancer or inflammation. If the test is positive, you may have no serious problem but you need further investigation. Your doctor will probably recommend an endoscopy.

**Biopsy test.** Biopsies are taken at the time of endoscopy. A flexible viewing tube is passed through the mouth into the stomach so that the oesophagus, stomach and duodenum can be seen. A small piece of the stomach lining is taken during this procedure, which is done under sedation and is painless. Endoscopy is usually done because of symptoms such as indigestion or abdominal pain. The piece of tissue is tested for the bacteria, and a result is usually available within 4 hours. A separate piece of tissue may also be examined under the microscope by a pathologist to confirm *Helicobacter pylori* infection, and will also detect inflammation, ulcer or cancer.

**Breath test.** The principle of this test is that the *Helicobacter pylori* bacteria contain an enzyme, which breaks down a special chemical solution that you have swallowed. Carbon dioxide is produced, absorbed from the stomach, passes through the lungs and is expired in the breath. After breathing into a machine, the quantity of gas can be measured and confirms the presence or absence of the *Helicobacter pylori* bacteria.

This test is useful to check whether treatment to eradicate the bacteria has been successful. The breath test is done after fasting and takes about an hour. It is usually done 4 weeks after the end of treatment, and requires stopping antibiotic and proton pump inhibitor drugs (*Losec*, *Nexium*, *Somac*, *Pariet* and *Zoton*) at least 7 days before the breath test.

*Blood tests are useless following treatment as they give positive results for many months even though the bacteria have been eradicated.*

## Treatment

The standard therapy is a combination of a Proton Pump inhibitor and two antibiotics (usually clarithromycin and amoxicillin) taken for 7 days. Patients with penicillin allergy require alternative antibiotics to amoxicillin, usually methronidazole (*Flagyl*) or tetracycline.

Side-effects occur in one in three people; however these are usually not severe. They may include some nausea, vomiting, diarrhoea and thrush.

Rarely, a more severe diarrhoea associated with colitis may occur. In clinical studies, less than 5% of people withdrew from treatment because they were unable to tolerate side-effects.

After treatment, you will need tests to check that the treatment has been successful. This is usually by a breath test or another endoscopy. Treatment is successful in up to 80% of patients.

If treatment is unsuccessful, you may need a further course, perhaps using a different combination of drugs or for a longer period.

In Australia, the risk of reinfection with *Helicobacter pylori* infection is low.

