

Understanding Helicobacter Pylori Infection and Treatment

HELICOBACTER PYLORI OVERVIEW

Helicobacter pylori, also known as H. pylori, is a bacteria that is commonly found in the stomach. It is present in approximately one-half of the world's population. The vast majority of people infected with H. pylori have no symptoms and will never develop problems. However, H. pylori is capable of causing a number of digestive problems, including ulcers and much less commonly, stomach cancer. It is not clear why some people with H. pylori get these conditions and others do not.

H. PYLORI RISK FACTORS

H. pylori is most likely more commonly probably spread by consuming food or water contaminated with fecal matter. It causes a weakening of the protective lining of the stomach and duodenum (the first part of the small intestine). As a result of these changes, the stomach and duodenum are more vulnerable to damage from stomach acid. This can cause ulcers or inflammation in the stomach or duodenum (gastritis and duodenitis)

In the United States and other developed countries, infection with H. pylori is unusual during childhood but becomes more common during adulthood. However, in developing countries, most children are infected with H. pylori before age 10.

H. PYLORI SYMPTOMS

Most individuals with chronic gastritis or duodenitis have no symptoms. However, some people develop more serious problems, including stomach or duodenal ulcers.

Ulcers can cause a variety of symptoms or no symptoms at all, with the most common ulcer symptoms including:

- Pain or discomfort (usually in the upper abdomen)
- Bloating
- Feeling full after eating a small amount of food
- Lack of appetite
- Nausea or vomiting
- Dark or tar-colored stools
- Ulcers that bleed can cause a low blood count and fatigue

Less commonly, gastritis can cause abnormal changes in the stomach lining which can lead to cancer. It is uncommon to develop cancer as a result of H. pylori infection, nevertheless because so many people in the world are infected with H. pylori it is thought to be an important cause of stomach cancer. People who live in countries in which H. pylori infection occurs at an early age (including South Africa) are at a greater risk of developing stomach cancer from this bacteria.

H. PYLORI DIAGNOSIS

There are several ways to diagnose H. pylori. The most commonly used tests include the following:

Breath tests – Breath tests (known as urea breath test) requires that you drink a specialized solution containing a substance that is broken down by the H. pylori bacterium. The breakdown products (urea) can be detected in your breath.

Stool tests – Tests are available that detect H. pylori proteins in stool. You would need to provide a stool sample. Ideally not mixed with urine, in a clean container and taken to a convenient laboratory.

Blood tests – Blood tests can detect specific antibodies (proteins) that the body's immune system develops in response to the H. pylori bacteria. However, there are concerns over its accuracy and it is not used frequently.

WHO SHOULD BE TESTED FOR H. PYLORI?

- If you have symptoms
- If you have gastric (stomach) or duodenal ulcers
- If you have past history of ulcers.

Although H. pylori infection is the most common cause of ulcers, not all patients with ulcers are caused by H. pylori.

Certain medications (eg, aspirin, ibuprofen [Nurofen], naproxen [Voltaren], grandpa, celebrex) can also cause peptic ulcers.

Even if you do not have symptoms we often check for H Pylori anyway as a matter of routine.

H. PYLORI TREATMENT

All patients infected with H Pylori should be treated. Successful treatment of H. pylori can prevent ulcers and gastric cancer and it can relieve many gastrointestinal symptoms.

Guidelines in the United States and other countries recommend that patients who require long-term anti-inflammatory medications such as aspirin, ibuprofen, naproxen and similar drugs should be tested for *H. pylori* and if infected undergo treatment to eradicate the *H. pylori* infection.

Medications – No single drug cures *H. pylori* infection. Most treatment regimens involve taking several medications for 10-14 days.

- Most of the treatment regimens include a medication called a proton pump inhibitor (ppi). This medication decreases the stomach's production of acid, which allows the tissues damaged by the infection to heal. Examples of proton pump inhibitors include lansoprazole (Lanzor), omeprazole (Losec), pantoprazole (Pantoloc) and esomeprazole (Trustan or Nexium).
- Two antibiotics are also generally recommended, this reduces the risk of treatment failure and antibiotic resistance.
- There are increasing numbers of patients with *H. pylori* infection that is resistant to antibiotics, so it is important to take all the medications prescribed and to have a test after six weeks to confirm that it has been eradicated.

For *H. pylori* treatment to be effective, it is important to take the entire course of all medications.

Side effects – Up to 50 percent of patients have side effects while taking *H. pylori* treatment. Side effects are usually mild, and fewer than 10 percent of patients stop treatment because of side effects. For those who do experience side effects, it may be possible to make adjustments in the dose or timing of medication. Some of the most common side effects are described below.

- Some of the treatment regimens use a medication called metronidazole (Flagyl) or clarithromycin (Clacee/Clarihexas/ Klacid). These medications can cause a metallic taste in the mouth.
- Alcoholic beverages (eg, beer, wine) should be avoided while taking metronidazole; the combination can cause skin flushing, headache, nausea, vomiting, sweating, and a rapid heart rate.
- Bismuth, which is contained in some of the regimens, causes the stool to become black and may cause constipation.
- Many of the regimens cause diarrhea and stomach cramps.

Treatment failure – Up to 20 percent of patients with *H. pylori* infection are not cured after completing their first course of treatment. A second treatment regimen is usually recommended in this case. Retreatment usually requires that the patient take 14 days of a proton pump inhibitor and two antibiotics. At least one of the antibiotics is different from those used in the first treatment course.

Follow-up – After completing *H. pylori* treatment, repeat testing is usually performed to ensure that the infection has resolved after 6 weeks. This is typically done with a breath or stool test. Blood tests are not recommended for follow up testing, the antibody detected by the blood test often remains in the blood for four or more months after treatment, even after the infection is eliminated.

SUMMARY

- Helicobacter pylori, also known as *H. pylori*, is a bacteria that is commonly found in the stomach. Most people infected with *H. pylori* have no problems, however, some people develop problems such as stomach ulcers.
- Ulcers may cause no symptoms at all or may cause pain or discomfort (usually in the upper abdomen), bloating, feeling full after eating a small amount of food, lack of appetite, nausea, vomiting and/or dark or tar-colored stools. Ulcers that bleed can cause a low blood count or anaemia.
- *H. pylori* can be diagnosed with a test on the blood, breath, or stool.
- *H. pylori* testing is recommended for anyone with a peptic (stomach or duodenal) ulcer.
- Anyone diagnosed with *H. pylori* should be treated.
- *H. pylori* treatment usually includes several medicines. At least two of the medicines are antibiotics that help to kill the bacteria. The other medication causes the stomach to make less acid. Lower acid levels help the ulcer to heal.