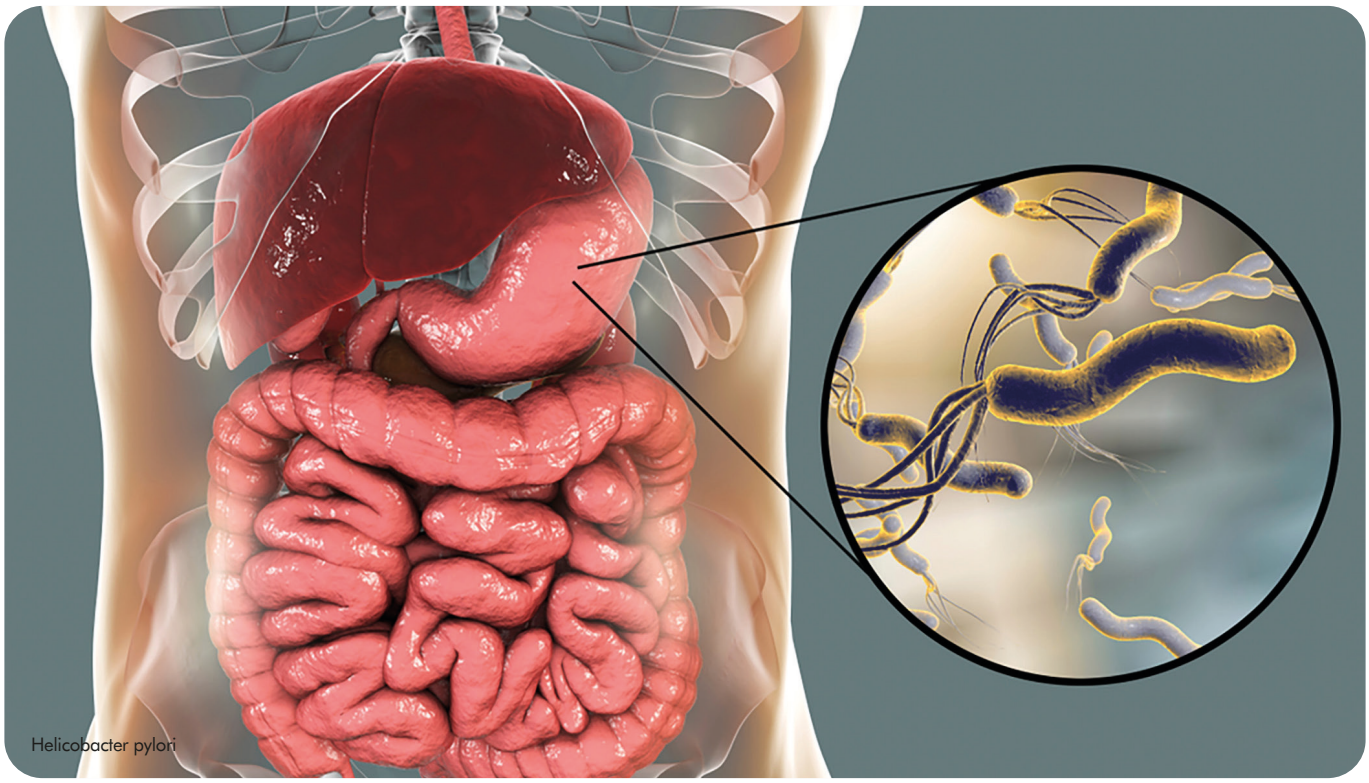
PATHOLOGY TESTS EXPLAINED

Information about pathology tests to help everyone take control of their health and make the right decisions about their care.

WHAT YOU SHOULD KNOW ABOUT **TESTING FOR HELICOBACTER PYLORI**

H. pylori is a type of bacteria that is now known to be the main cause of peptic ulcer disease, although not all people who are infected go on to develop symptoms. It is the most common infection in the world and about half of all Australians are estimated to have it.

The bacteria lives in the lining of your stomach and in the first part of the small intestine. For most people it doesn't cause symptoms but for others it causes inflammation that can gradually lead to ulcers and other stomach irritations. This can take many years to develop and most people who are diagnosed with gastric ulcers are over 60. If left untreated, there is a small risk of stomach cancer.


Helicobacter pylori

Testing

There are different ways to test for an *H. pylori* infection and the choice of tests your doctor makes will depend on a range of factors including whether you have symptoms or not.

Urea Breath Test (UBT)

This is the test most often used to diagnose an infection because it is highly accurate and non-invasive. It measures a substance called urease in your stomach. Urease is an enzyme made by the *H. pylori* bacteria that allows them to survive in the stomach's acidic environment. You will be asked to swallow a small amount of radiolabelled urea then after a few minutes blow into a balloon.

The urea is broken down by the bacteria's urease into carbon dioxide and ammonia. The carbon dioxide is detectable in your breath and can show if you have *H. pylori* in your stomach. The urea solution given for this test is safe and the amount of radioactivity is about 10 – 20 times less than that used in a chest X-ray.

Testing (continued)

Stool (faecal) test

This test checks for antigens in a sample of your stool. Antigens are proteins on the surface of *H. pylori* bacteria that trigger your body's immune response.

Blood test

This detects the antibodies in your blood that the immune system makes to fight off *H. pylori*. Antibodies take five to 10 weeks to develop after the infection first starts and they can stay in your blood long-term. However, the test cannot distinguish between a past or current infection, and it cannot be used to monitor therapy.

Endoscopy or gastroscopy

This is a procedure performed under anaesthetic that puts a tube down your throat and into your stomach to take a biopsy – a small piece of tissue – from the stomach lining. The tissue samples are examined in the laboratory. This usually involves a pathologist investigating your samples under a microscope. Sometimes *H. pylori* bacteria are grown in a dish or tube containing nutrients until there is enough to be seen under a microscope or in a liquid solution. A biopsy can also detect other causes of stomach pain. Sometimes a breath test can be used instead of a biopsy.

Genetic testing

This is relatively new but is a more accurate and faster way to confirm *H.Pylori* infection by detecting the bacteria's DNA and RNA. It can identify particular strains or sub-strains and this information can be used to guide which antibiotics are more likely to be successful in your treatment.

Preparing for your test

If you are on medications such as proton pump inhibitors, certain antacids, or antibiotics, you need to talk with your doctor about stopping these drugs before the urea breath or stool test is performed as they can interfere with the test's ability to detect *H. pylori*. This is not needed for the blood test.

What your results can tell you

A positive *H. pylori* test, antibody, antigen, breath or genetic test indicates that you have been infected.
If your test result is positive, you will be treated with a combination of antibiotics and a proton pump inhibitor – a medication that reduces stomach acid. In some cases, more than one treatment course is required to clear the body of the bacteria.

A repeat test may be requested after you finish taking the prescribed antibiotics to provide evidence that the bacteria have disappeared from your body. If this is necessary, you should stop taking the proton pump inhibitor medications for two weeks prior to the test being performed as they can decrease the sensitivity of the tests.

Many people who successfully complete the combination antibiotic therapy get rid of *H. pylori*. However, resistance to some antibiotics is increasing and in a significant number of people first-line treatments are not successful and further testing is needed followed by treatment with different antibiotics.

For more detailed information on these and many other tests go to **pathologytestsexplained.org.au**

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www.pathologytestsexplained.org.au

Please use this QR code to access more information

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Pathology Tests Explained is managed by a consortium of medical and scientific organisations representing pathology practice in Australia. More details at:
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My Health Record

You'll find a direct link to the Pathology Tests Explained website embedded in the pathology results pages of your My Health Record.

Click on the link to find information about what your tests are investigating or measuring and what your results can tell your doctor.