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INFORMATION ABOUT

HELICOBACTER PYLORI

WHAT WHY
WILL HOW OR
IF WHEN

IN ASSOCIATION WITH:

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FIGHTING GUT AND LIVER DISEASE

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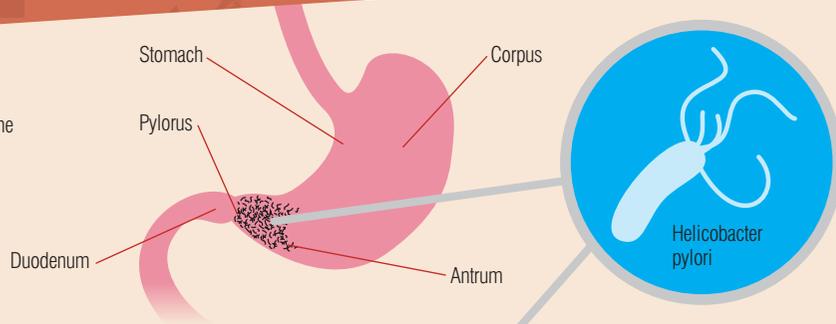
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HELICOBACTER PYLORI

Helicobacter pylori (H. pylori) are bacteria, a type of germ, which lives in the sticky mucus that lines the stomach. About 40% of people in the UK have H. pylori in their stomach so it is very common¹ and in approximately nine out of ten people who have H. pylori, it does not cause any problems².

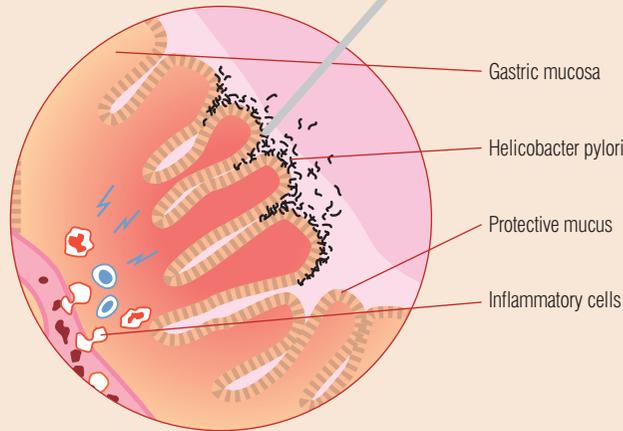
Infection

H. pylori infects the lower part of the stomach, antrum.



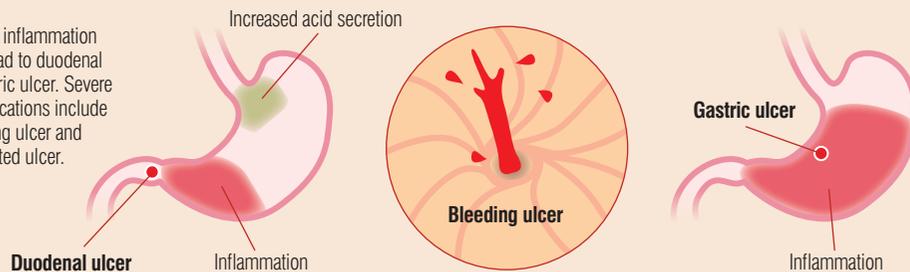
Inflammation

H. pylori causes inflammation of the gastric mucosa (gastritis). This is often asymptomatic.



Ulcer

Gastric inflammation may lead to duodenal or gastric ulcer. Severe complications include bleeding ulcer and perforated ulcer.



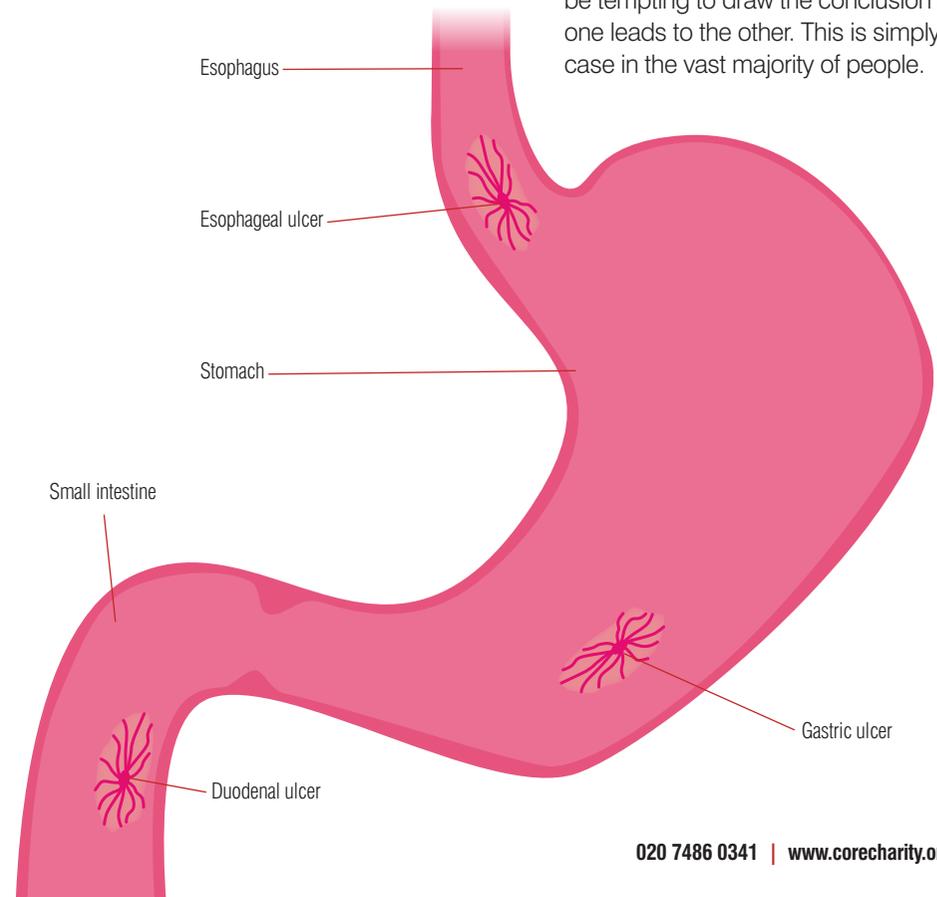
HOW DO PEOPLE GET IT AND CAN THEY PASS IT ON?

People who do have H. pylori almost always catch it in childhood, probably from other children or family members. Once someone picks up H. pylori, it usually stays in the stomach throughout their lifetime unless it is treated with specific antibiotics³. H. pylori is actually becoming less common and nowadays it is unusual for children to catch it, even if someone else in the family has it. People living in the UK today who have H. pylori are unlikely to pass it on and do not need to take any special measures to avoid giving it to others.

WHAT PROBLEMS CAN H. PYLORI CAUSE?

About 15% of people with H. pylori infection get ulcers⁴ either in the stomach (gastric ulcer) or in the duodenum (duodenal ulcer). Although ulcers tend to cause indigestion, occasionally they become much more serious as they can bleed or even burst (perforate) which happens if the ulcer burrows deep enough into the stomach lining actually to make a hole. People with ulcers should therefore be treated with the aim of getting rid of H. pylori.

Bad indigestion is common and there are many other reasons why people get this symptom other than having ulcers. Because there are millions of people who have both H. pylori and indigestion, it can be tempting to draw the conclusion that one leads to the other. This is simply not the case in the vast majority of people.



DOES H. PYLORI CAUSE CANCER?

It is true to say that H. pylori is associated with an increased risk of stomach cancer⁵. However, unless there is a family history of stomach cancer, treating H. pylori to reduce this risk is not generally advised in Western countries, where the risk of cancer is comparatively quite low. In addition, no one knows whether treating H. pylori when you are an adult will actually reduce the risk of developing stomach cancer in the long-term. Finally, although treatment with antibiotics is usually straightforward, there is a small risk of a bad reaction, and side effects from the antibiotic treatment may outweigh any possible benefit either immediate or long-term.

DOES TREATING H. PYLORI MAKE YOU BETTER?

If you have an ulcer

Before we knew about H. pylori, ulcers did heal up with acid-reducing drugs only to come back when the treatment was stopped. Treating H. pylori not only helps ulcers to heal but, more importantly, it greatly reduces the risk of the reoccurrence of the ulcers. Although H. pylori is the cause of most ulcers, there are some which are caused by aspirin and similar drugs used to treat joint and muscle problems. Nevertheless, all doctors are agreed that patients with H. pylori should have treatment for the infection if they have, or ever have had, an ulcer.

If you don't have an ulcer

Less than one person in 10 with the combination of indigestion and H. pylori infection, but who don't have an ulcer, will feel better as a result of treatment⁶. Many doctors consider the disadvantages of taking a course of antibiotics are just not worth the small chance of the treatment helping when taking into account the side-effects. It is fair to say that there are doctors who would recommend treating H. pylori even without an ulcer being present. They do this in the hope of making a small number of such people feel better.

If you have indigestion but neither you nor your doctor know if you have an ulcer

Until recently most people with bad indigestion often had an endoscopy (an examination of the stomach with a small tube and camera) to see whether or not an ulcer was present. Nowadays, people with indigestion who also have worrying symptoms such as weight loss, persistent vomiting or trouble in swallowing still need to have an endoscopy. Otherwise, most patients are treated without the need to have that examination. Instead, many doctors test their patients with indigestion to see if they have H. pylori and, if the test is positive, they can treat the definitive infection. However, without an endoscopy, the doctor does not know whether or not an ulcer is present. If the patient has actually had an ulcer, we know that treating H. pylori is likely to prove successful. In other cases where H. pylori has not caused an ulcer, there may be no improvement.

HOW DO DOCTORS TEST FOR H. PYLORI?

The easiest way to test for H. pylori is through a blood test. This is useful for finding out whether a person has H. pylori but the test stays positive even if a previous H. pylori infection has been treated and got rid of. This means that it cannot tell us whether a course of treatment has cleared the infection⁷.

Another simple technique of looking for H. pylori involves a breath test. For this you are given a drink containing a substance called urea. Whether or not H. pylori is present in the stomach can be detected by collecting a sample of your breath a short time after drinking the drink. This test is used to find out whether treatment has been successful although it needs to be done at least one month after the course of treatment has finished. Stool antigen tests for H. pylori are now widely used and are as accurate as breath tests. These involve analyzing a small portion of stool for H. pylori proteins, and can be used to confirm that infection has been cleared after treatment⁸.

Doctors can also test for H. pylori while patients are having an endoscopy. A very small piece of the lining of the stomach (a biopsy) is sent to the laboratory for a number of different tests to check whether or not H. pylori is present in the stomach.

All tests for H. pylori, except the blood test or biopsy, may be quite inaccurate if people have had a recent course of antibiotics for any reason, or have taken some of the other drugs which are used to treat ulcers. Your doctor will certainly ensure that you do not have a test for H. pylori if other medicines you might have taken recently would give a misleading result.

HOW CAN H. PYLORI BE TREATED AND WHAT ARE THE CHANCES OF SUCCESS?

Treatment for H. pylori is now simple and successful at the first attempt in most people. It consists of a one-week course of three different tablets, two of which are antibiotics and the third is a tablet to cut down the amount of acid in your stomach^{9,10}. These are all taken together twice a day. Your doctor will ask you whether you are allergic to any particular antibiotics before treatment is started, and if so, an alternative, equally successful treatment can be given.

Most people experience no side-effects from treatment, but a few notice minor problems such as a strange taste in the mouth, a feeling of sickness, diarrhoea or perhaps a headache. With one particular antibiotic that is often used, you should avoid alcohol. Treatment is much more successful if the whole course of tablets is taken exactly as prescribed and your doctor will encourage you to continue to take the tablets unless the side effects become unpleasant. Even when treatment has been successful in clearing the H. pylori, sometimes symptoms take a little while to settle down. If the treatment is shown to be unsuccessful in clearing H. pylori, it is possible to have further courses of therapy with different antibiotics.

DO DOCTORS GENERALLY AGREE ON WHEN TO TREAT H. PYLORI?

All doctors will advise treatment if you have (or have had) an ulcer. Opinion is divided on whether to treat the infection in other situations. Indeed some doctors advise that it is best to treat every patient who has a positive test for *Helicobacter pylori*. It is best to discuss with your doctor whether treatment is likely to be right for you.

WHAT RESEARCH IS NEEDED ON H. PYLORI?

H. pylori was only discovered in 1983. Although we have learned an enormous amount about it, there is still much we do not know. For example, it's not clear exactly how *H. pylori* is passed from one person to another, and why only some people with the infection get ulcers. We do not know how *H. pylori* increases the risk of stomach cancer¹¹. A better understanding of this may help us to work out how this cancer arises and might just tell us more about cancer formation more generally.

Treatment for *H. pylori* is now very effective but it can become resistant to common antibiotics and we need to develop strategies to stop this happening as well as finding alternative treatments for cases when resistance develops. We also need to develop a vaccine to prevent *H. pylori* infection in countries where it is common and associated with gastric cancer. *H. pylori* is gradually becoming less common in the UK, but research is urgently needed on what to do about it in the developing world where it is still very prevalent and can be dangerous without the correct treatment.

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This leaflet was published by Core in 2014 and will be reviewed during 2016. If you are reading this after 2016 some of the information may be out of date. This leaflet was written under the direction of our Medical Director and has been subject to both lay and professional review.

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