

Patient information from BMJ

Last published: Sep 27, 2021

Peptic ulcers

If the lining of your stomach or your upper intestine (gut) gets damaged it can cause an ulcer. Peptic ulcers are sometimes called stomach ulcers or duodenal ulcers. They can be very painful but there are treatments that can help.

You can use our information to talk to your doctor and decide which treatments are best for you.

What are peptic ulcers?

There are two kinds of peptic ulcer. One type happens in the upper intestine (called the duodenum), the other in the stomach. Both can be very painful.

Duodenal ulcers happen when the lining of your duodenum gets damaged and acid from your stomach goes through the damaged lining to the tissue underneath.

Most duodenal ulcers are caused by one of the bacteria (germs) that can live in your stomach, called *Helicobacter pylori* (*H. pylori* for short).

Stomach ulcers happen when the lining of your stomach gets damaged and acid from your stomach goes through the damaged lining to the tissue underneath.

Most stomach ulcers are caused by taking non-steroidal anti-inflammatory drugs (NSAIDs for short), which can lead to damage of the lining of the stomach.

Other, less common, causes of peptic ulcers include:

- multiple organ failure, which can lead to problems with the digestive system, including 'stress ulcers
- a condition called Zollinger-Ellison syndrome, where a tumour leads to the production of too much acid in the stomach
- certain medicines, including potassium chloride and drugs called bisphosphonates
- some infections, and
- Crohn's disease, which is an inflammatory disease of the intestines.

What are the symptoms?

Peptic ulcers can be painful. Some people say it feels like a burning pain between their breastbone and belly button. The pain is usually worse when your stomach is empty, between meals. It might get better if you eat or if you take antacids (such as Gaviscon, Rennie, or Tums).

You might also get heartburn, feel bloated, or have wind. But having one or two of these symptoms doesn't usually mean you have a stomach ulcer.

Stomach problems can sometimes be a sign of a more serious illness. If you have black stools, or if you are vomiting blood, you should call your doctor or go to an accident and emergency department as soon as possible. You could have bleeding in your stomach or your intestine.

You should also tell your doctor if you:

- feel that food sticks in your throat when you swallow
- are losing weight without trying, or
- are feeling tired for no reason.

Your doctor might suggest some more tests, especially if you are aged over 55. But most people who have these tests turn out not to have anything seriously wrong.

What treatments work?

Treatment for peptic ulcers is aimed at treating the cause of the ulcer and healing the ulcer itself.

Your doctor might want to do a test called an endoscopy before starting treatment. This involves passing a small camera through a tube in your throat into your stomach so that the doctor can see your ulcer.

The images from the camera will help your doctor make the best treatment decisions. For example, he or she will be able to see if your ulcer is bleeding, which requires urgent treatment. Your doctor will also be able to tell whether your ulcer is in the duodenum or the stomach.

Emergency treatment for bleeding ulcers

If tests, such as an endoscopy, show that your ulcer is bleeding, you will need to be admitted to hospital straight away.

The bleeding can usually be stopped by operating using an endoscope. This means that the bleeding can be stopped by instruments passed down the throat rather than by standard surgery.

If endoscopic treatment doesn't stop the bleeding, or if the ulcer has perforated (made a hole in the wall of the stomach) then standard surgery will be necessary.

Peptic ulcers

After the surgery you will be tested for *H. pylori* and treated for the infection if necessary.

Treatment for ulcers in people without *H. pylori* infection

Most peptic ulcers in the stomach are caused by long-term use of medicines called non-steroidal anti-inflammatory drugs (NSAIDs for short). Ones that you might have heard of include aspirin, ibuprofen, diclofenac, and naproxen.

These medicines are used to relieve inflammation (swelling) and pain. They can help many people with conditions such as arthritis, but they can sometimes cause problems, including stomach ulcers.

If you have been taking NSAIDs, and tests show that you don't have an *H. pylori* infection, use of NSAIDs is the most likely cause of an ulcer. So your doctor will advise you to stop taking those drugs right away.

If this is not possible, or if you are taking prescribed low-dose aspirin because you have a heart condition, your doctor might prescribe an additional medicine to protect the lining of your stomach, and might suggest changing your pain medicine to something less likely to aggravate your ulcer.

The next step is to help the ulcer to heal. The usual treatment is taking tablets called proton pump inhibitors. These drugs reduce the amount of acid the stomach produces. Most people need to have this treatment for about four weeks.

Treatment for ulcers in people with *H. pylori* infection

Most peptic ulcers in the duodenum (duodenal ulcers) are caused by *H. pylori* infection.

There are simple tests that can tell your doctor if you have *H. pylori*. Your doctor might do a breath test or ask you for a stool sample. There's a blood test, too, but it's not as accurate. If tests show that you have *H. pylori* in your stomach, killing the bacteria can help get rid of your ulcer.

Most people who have treatment for *H. pylori* get rid of their ulcer. Getting rid of *H. pylori* also means that your ulcer is less likely to come back.

The treatment for people with an ulcer caused by *H. pylori* usually consists of three drugs: two antibiotics to kill the *H. pylori* bacteria, and a proton pump inhibitor to reduce stomach acid while the ulcer is healing.

It's important to carefully follow the instructions on how to take the antibiotics. For example, don't stop taking the antibiotics if your symptoms go away after a few days: finish the course of treatment.

If you don't take all the antibiotics there's a chance that not all the bacteria will be killed and the infection will return, stronger, and harder to kill than before. This is called 'antibiotic resistance' and it is a serious and growing problem.

If this treatment doesn't work your doctor might suggest different antibiotics, and possibly another drug called bismuth, which can help the ulcer heal.

Peptic ulcers

Antibiotics can cause side effects in some people. The most common one is diarrhoea. But it's important to keep taking the antibiotics, even if this happens.

If your treatment causes diarrhoea that doesn't stop after a few days, talk to your doctor.

What will happen to me?

Treatment to remove the cause of ulcers, and then to help them heal, usually works well.

If you need to take NSAIDs for a long-term condition your doctor will prescribe a proton pump inhibitor to take as well, to help protect your stomach. But ulcers can come back in people who take NSAIDs.

If you tested positive for *H. pylori* your doctor should arrange for you to have an endoscopy 4 weeks after the end of your treatment, to check that your ulcer has healed.

If you are a smoker your doctor will advise you to stop, as smoking can irritate the lining of the stomach.

The patient information from *BMJ Best Practice* from which this leaflet is derived is regularly updated. The most recent version of Best Practice can be found at bestpractice.bmj.com. This information is intended for use by health professionals. It is not a substitute for medical advice. It is strongly recommended that you independently verify any interpretation of this material and, if you have a medical problem, see your doctor.

Please see BMJ's full terms of use at: bmj.com/company/legal-information. BMJ does not make any representations, conditions, warranties or guarantees, whether express or implied, that this material is accurate, complete, up-to-date or fit for any particular purposes.

© BMJ Publishing Group Ltd 2021. All rights reserved.

