Education

Duodenal Ulcer

What is a duodenal ulcer?

A duodenal ulcer is a raw place or sore in the lining of the upper small intestine. It develops in the duodenum, which is where the small intestine connects to the stomach.

How does it occur?

A duodenal ulcer happens when part of the lining of the intestine is eaten away by stomach acid and digestive juices. Normally, the lining of the intestine is protected from stomach acids. However, sometimes this protection fails and ulcers can result.

The most common cause of duodenal ulcers is a type of bacteria called Helicobacter pylori, also called H. pylori. These bacteria cause about 90% of all duodenal ulcers.

Another common cause of ulcers is long-term use of anti-inflammatory medicines such as aspirin, ibuprofen, and naproxen. Also, ulcers occur more often in people who smoke cigarettes. Other substances that increase the production of stomach acids, such as caffeine, may increase the risk of ulcers and are known to worsen the pain. Stress has been thought to contribute to ulcers, but its role in causing ulcers is not clear.

People with a family history of duodenal ulcers are more likely to get ulcers. The problem is four times more common in men than in women. Most cases of ulcers occur between ages 40 and 50.

What are the symptoms?

Symptoms include:

- gnawing or burning abdominal pain, especially in the middle of the upper abdomen
- pain that may get better when you eat or take antacids
- pain that gets worse before meals or a couple of hours after you eat
- pain wakes you up during the night.

If an ulcer is bleeding, you may have:

- vomit containing either bright red blood or digested blood that looks like brown coffee grounds
- black, tarry bowel movements.

It is possible, though unusual, to have an ulcer without any symptoms.

How is it diagnosed?

Your health care provider will review your symptoms, ask about your medical history, and examine you. You may have one or more of these tests:

- an upper GI x-ray (for this test you swallow liquid barium, which may allow your health care provider to see the ulcer on an x-ray)
- blood tests to look for H. pylori bacteria
- tests of a sample of your bowel movement to check for blood (which might come from a bleeding ulcer)
- a blood test for anemia (which may be a sign of internal bleeding)
- an upper endoscopy, which allows your provider to see an ulcer with a thin flexible tube and tiny camera inserted through your mouth down into your upper digestive tract
- a biopsy, which involves taking a piece of tissue during an endoscopy and sending it to the lab for tests (this is another way to test for H. pylori).
How is it treated?

The goals of treatment are pain relief, healing of the ulcer, and prevention of complications. Treatment can also help prevent recurrence of the ulcer.

Your health care provider may prescribe:

- antibiotics to treat H. pylori
- antacids
- medicine to reduce the amount of acid your stomach makes
- sucralfate, a medicine that forms a protective barrier over the site of the ulcer to help it heal.

You will probably take the antibiotics for 1 to 2 weeks. You may take medicine to decrease acid for at least 6 weeks. Sometimes medicine needs to be taken for several months to prevent new ulcers.

Antacids can have side effects after you have used them for a while. Follow your health care provider’s instructions carefully, and report any problems promptly.

How long will the effects last?

Ulcers get better with treatment but they can come back. You can help reduce the chance that an ulcer will recur by taking your medicines.

About 25% of people with duodenal ulcers develop complications. Possible complications of untreated ulcers are:

- hemorrhage (a lot of bleeding)
- perforation (a hole through the wall of the duodenum made by an ulcer)
- obstruction (a buildup of ulcer tissue that prevents passage of food).

These complications may require surgery.

How can I take care of myself?

- Follow the full treatment prescribed by your health care provider. Keep your follow-up appointments.
- Do not smoke cigarettes.
- Ask your provider if you should avoid drugs that irritate the stomach, such as aspirin, ibuprofen, and naproxen. If your provider says it is OK to take these drugs, try taking them with food to prevent stomach irritation. (Ask your provider if you can use acetaminophen instead.)
- You may want to make other lifestyle changes such as:
  - Eating healthy meals. Having small meals 4 to 5 times a day may be better than 2 or 3 large meals. Follow the diet prescribed by your health care provider.
  - Avoiding coffee, including caffeinated and decaf coffee, colas, and any other food or drink that may bother your stomach, such as alcohol.
  - Getting plenty of rest and sleep.
  - Exercising as recommended by your provider.
- If you keep having symptoms or your symptoms get worse, tell your provider.

How can I help prevent duodenal ulcers?

- Change your lifestyle in ways that might help prevent ulcers.
- Ask your health care provider if you need to take medicine to prevent new ulcers.

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