

# PEPTIC ULCER



**Centurion**  
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*Shaping Lives...*  
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## INTRODUCTION:

A peptic ulcer is a sore or lesion that develops in the lining of the stomach or the first part of the small intestine, known as the duodenum.

## ETIOLOGY:

- **Helicobacter pylori infection:** This is a common bacterial infection that can cause peptic ulcers. It is estimated that about 60% of peptic ulcers are caused by H. pylori infection.
- **Nonsteroidal anti-inflammatory drugs (NSAIDs):** Prolonged use of NSAIDs such as aspirin, ibuprofen, and naproxen can irritate the lining of the stomach and small intestine, leading to peptic ulcers.
- **Alcohol consumption:** Drinking alcohol in excess can damage the lining of the stomach and increase the production of stomach acid, leading to peptic ulcers.
- **Smoking:** Smoking can increase the production of stomach acid and weaken the protective lining of the stomach and small intestine, increasing the risk of peptic ulcers.
- **Stress:** While stress does not directly cause peptic ulcers, it can increase the production of stomach acid, which can worsen existing ulcers.
- **Genetics:** A family history of peptic ulcers may increase the risk of developing the condition.
- **Other factors:** Other factors that may increase the risk of peptic ulcers include age, certain medical conditions such as Zollinger-Ellison syndrome, and long-term use of steroids or blood thinners.

## PATHOPHYSIOLOGY:

- The stomach produces hydrochloric acid and other digestive juices to digest food. These juices are typically kept in the stomach by a protective layer of mucus.

- If the protective mucus layer is damaged or weakened, stomach acid can penetrate the lining of the stomach or small intestine and cause inflammation and irritation.
- Over time, the inflammation and irritation can lead to the formation of an open sore or lesion, known as a peptic ulcer.
- If left untreated, peptic ulcers can lead to complications such as bleeding, perforation (a hole in the digestive tract), and blockage of the digestive tract.

### **CLINICAL MANIFESTATION:**

- Abdominal pain
- Nausea and vomiting
- Loss of appetite and weight loss
- Bloating and belching
- Heartburn and indigestion
- Dark or tarry stools

### **DIGNOSIS:**

- **Endoscopy**
- **X-ray**
- **Stool test**
- **Blood test**
- **Breath test**

### **PHARM ACOLOGICAL MANAGEMENT:**

- **Proton pump inhibitors (PPIs):** These drugs work by blocking the action of the proton pump in the stomach, which reduces the amount of acid produced. Examples of PPIs include omeprazole, lansoprazole, pantoprazole, and esomeprazole.

- **H2 blockers:** These drugs work by blocking the action of histamine, which reduces the amount of acid produced. Examples of H2 blockers include ranitidine, famotidine, and cimetidine.
- **Antacids:** These drugs work by neutralizing stomach acid, which can provide quick relief of symptoms. Examples of antacids include calcium carbonate, magnesium hydroxide, and aluminum hydroxide.
- **Antibiotics:** If a peptic ulcer is caused by an H. pylori infection, antibiotics may be prescribed to kill the bacteria. Common antibiotics used to treat H. pylori include clarithromycin, amoxicillin, and metronidazole.
- **Cytoprotective agents:** These drugs work by protecting the lining of the stomach and small intestine from further damage. Examples of cytoprotective agents include sucralfate and misoprostol.

#### **NON- PHARMACOLOGICAL MANAGEMENT/PREVENTION:**

- **Treat H. pylori infection:** If you have been diagnosed with an H. pylori infection, follow your healthcare provider's recommendations for treatment to eradicate the bacteria.
- **Avoid NSAIDs:** Nonsteroidal anti-inflammatory drugs (NSAIDs) such as aspirin, ibuprofen, and naproxen can increase the risk of peptic ulcers. If you need to take these medications, talk to your healthcare provider about using the lowest effective dose and for the shortest possible duration.
- **Manage stress:** Stress can increase stomach acid production and worsen peptic ulcers. Practice stress-reducing techniques such as deep breathing, meditation, or yoga.
- **Quit smoking:** Smoking can increase the risk of peptic ulcers and delay healing. If you smoke, talk to your healthcare provider about ways to quit.

- **Limit alcohol consumption:** Drinking alcohol can irritate the lining of the stomach and increase the risk of peptic ulcers. Limit your alcohol intake or avoid it altogether.
- **Eat a healthy diet:** Choose a diet that is rich in fruits, vegetables, whole grains, and lean protein. Avoid spicy or acidic foods that can irritate the stomach lining.