

# **Peptic ulcer**

## **“Stomach Ulcer”**



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# Objectives:

By the end of this interactive lecture, the student will be able to:

- ◉ Describe peptic ulcer
- ◉ Compare between the gastric & duodenal ulcers
- ◉ Describe the diagnostic studies.
- ◉ Describe the complications
- ◉ Describe medical and surgical treatment of peptic ulcer.
- ◉ Describe methods of prevention of Stomach Ulcers
- ◉ Plan for patient education.
- ◉ Design a nursing care plan

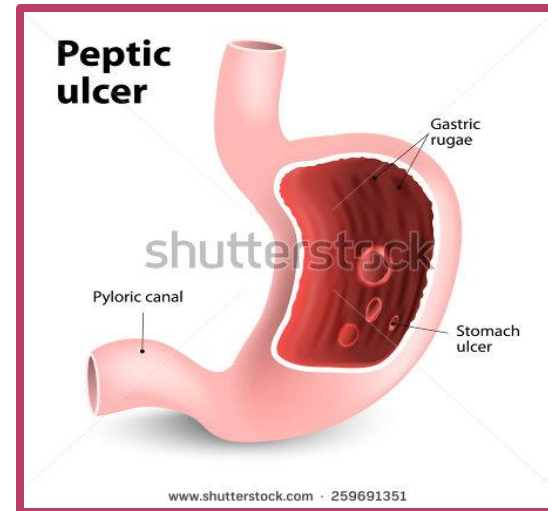
# Outlines

- ◉ **Definition of peptic ulcer**
- ◉ **Comparison between the gastric & duodenal ulcers**
- ◉ **The diagnostic studies.**
- ◉ **The complications**
- ◉ **Medical and surgical treatment of peptic ulcer.**
- ◉ **Methods of prevention of Stomach Ulcers**
- ◉ **Patient education.**
- ◉ **Nursing care plan for patient with peptic ulcer**

# Peptic Ulcer

It is frequently referred to as:

- ⦿ a gastric, duodenal, or esophageal ulcer, depending on its location, or as peptic ulcer disease.
- ⦿ Stomach ulcers are painful sores that can be found in the stomach lining or small intestine.
- ⦿ It is an excavation (hollowed-out area) that forms in the mucosal wall of the stomach, in the pylorus (opening between stomach and duodenum), in the duodenum (first part of small intestine), or in the esophagus.



- ◉ **Erosion** of a circumscribed area of mucous membrane of the stomach is the cause. This erosion may extend as deeply as the muscle layers or through the muscle to the peritoneum.
- ◉ Peptic ulcers are more **common** in the **duodenum** than in the **stomach**.
- ◉ As a rule they **occur alone**, but they may occur in **multiples**.
- ◉ **Chronic gastric ulcers** tend to occur in the **lesser curvature of the stomach**, near the pylorus.

**Comparison Between**

**Duodenal Ulcer &**

**Gastric Ulcer**


# Comparison between the gastric & duodenal ulcers

*Location ulcers*



	Duodenal ulcer	Gastric ulcer
<b><u>Age</u></b>	30-60	Usually 50 and over
<b><u>Sex</u></b>	<b><u>Male: female</u></b> 2-3:1	Male: female 1:1
<b><u>Incidence</u></b>	80% of peptic ulcers are duodenal	15% of peptic ulcers are gastric
<b><u>Risk Factors</u></b>	<ul style="list-style-type: none"> <li>•H. pylori,</li> <li>•alcohol,</li> <li>•smoking,</li> <li>•cirrhosis,</li> <li>•stress</li> </ul>	<ul style="list-style-type: none"> <li>•H. pylori,</li> <li>•gastritis,</li> <li>•alcohol,</li> <li>•smoking,</li> <li>•use of NSAIDs,</li> <li>•stress</li> </ul>
<b><u>HCL</u></b>	• <b><u>Hypersecretion</u></b> of stomach acid (HCl)	<b><u>Normal–hyposecretion</u></b> of stomach acid (HCl)

# Signs, Symptoms, & Clinical Findings

	Duodenal Ulcer	Gastric Ulcer
<b>Patient Weight</b>	• <u>May have weight gain</u>	<u>Weight loss</u> may occur
<b>Pain</b> 	• Pain occurs 2-3 hours after a meal; often awakened between 1-2 AM	<ul style="list-style-type: none"> <li>• Pain occurs 1/2 to 1 hour after a meal;</li> <li>• Rarely occurs at night;</li> <li>• May be relieved by vomiting</li> </ul>
<b>Ingestion of food</b>	• Ingestion of food <u>relieves</u> pain	• Ingestion of food <u>does not help, sometimes increases pain</u>
<b>Vomiting</b>	• <b><u>Vomiting uncommon</u></b>	<b><u>Vomiting common</u></b>



Complications	Duodenal Ulcer	Gastric Ulcer
<b>Hemorrhage</b>	<ul style="list-style-type: none"> <li>• Hemorrhage <u>less</u> likely than with gastric ulcer, but if present <u>melena</u> <u>more</u> common than hematemesis</li> </ul>	<ul style="list-style-type: none"> <li>• Hemorrhage <u>more</u> likely to occur than with duodenal ulcer; <u>hematemesis</u> <u>more</u> common than melena</li> </ul>
<b>Perforation</b>	<ul style="list-style-type: none"> <li>• More likely to perforate than gastric ulcers</li> </ul>	
<b>Malignancy Possibility</b>	<b>Rare</b>	<b>Occasionally</b>



# Diagnostic Studies Findings



- ◉ A barium study of the upper GI tract may show an ulcer; however, endoscopy is the preferred diagnostic procedure because it allows direct visualization of inflammatory changes, ulcers, and lesions.
- ◉ Through endoscopy, a biopsy of the gastric mucosa and of any suspicious lesions can be obtained.
- ◉ Stools may be tested periodically until they are negative for occult blood.
- ◉ Gastric secretory studies are of value in diagnosing achlorhydria and ZES.
- ◉ H. pylori infection may be determined by biopsy and histology with culture. There is also a breath test that detects *H. pylori*, as well as a serologic test for antibodies to the *H. pylori* antigen.

# Complications

- ◉ The longer an ulcer remains untreated, the more likely you are to develop complications.

## 1- Erosion o the ulcer or broken a blood vessel

- ◉ The patient should seek medical treatment if you experience any of the following symptoms of
- ◉ sudden, sharp pain that doesn't stop
- ◉ black or bloody stools
- ◉ bloody vomitus
- ◉ vomit that looks like coffee grounds



## 2- Scar tissue development is another possible complication.

The tissue can prevent food from moving from the stomach into the small intestine.

The patient require intensive therapy, usually in a hospital setting.



# Medical Treatment

If the patient have an actively bleeding ulcer, you'll likely be hospitalized for intensive treatment with IV ulcer medications, and you may also require blood transfusion.

- **Nonsurgical Treatment**

- Stomach ulcer is the result of *H. pylori*, treatment is.

**For mild to moderate stomach ulcers,**

- **H2 blockers:** to prevent tomach from making too much acid
- **proton pump inhibitors:** blocks the cells that produce acid
- **Over-the-counter Antacids:** to help neutralize stomach acid
- **Cytoprotective agents:** to protect the lining of the stomach and small intestine, such as Pepto-Bismol
- Avoid smoking, alcohol, and any medications or foods that can trigger symptoms.

# Surgical Procedures for Peptic Ulcer Disease

## Vagotomy

- It is severing of the vagus nerve.
- Decreases gastric acid by diminishing cholinergic stimulation to the parietal cells, making them less responsive to gastrin.
- May be done via open surgical approach, laparoscopy, or thoracoscopy

# Prevention of Stomach Ulcers

To prevent the spread of bacteria and reduce risk of bacterial infection, wash your hands with soap and water on a regular basis.

- Make sure all food is properly cleaned and cooked thoroughly.

To prevent ulcers caused by NSAIDs, stop using these medications (if possible) or limit their use.

If the patient need to take NSAIDs, be sure to follow the recommended dosage and avoid alcohol while taking these medications.

Certain lifestyle changes can help prevent ulcers from forming.

- Limiting alcohol consumption,
- avoiding tobacco products, and
- properly managing stress can all contribute to a healthy stomach lining.



**Patient**

**Education**



## Diet and Lifestyle

- People with peptic ulcer should eat a healthy balanced diet.
- It does not help to eat more often or increase the amount of milk and dairy products you consume.
- These changes may even cause more stomach acid.
- Avoid foods and drinks that cause discomfort for you. For many people these include alcohol, coffee, caffeinated soda, fatty foods, chocolate, and spicy foods.
- Avoid eating late night snacks.
- If you smoke or chew tobacco, try to quit. Tobacco will slow the healing of your ulcer and increase the chance that the ulcer will come back. Talk to your doctor about getting help for quitting tobacco use.
- Try to reduce your stress level and learn ways to better manage stress.

## **Medicines**

- ◉ Avoid drugs such as aspirin, ibuprofen (Advil, Motrin), or naproxen (Aleve, Naprosyn).
- ◉ Take acetaminophen (Tylenol) to relieve pain.
- ◉ Take all medicines with plenty of water.
- ◉ Taking antacids as needed between meals, and then at bedtime, may help healing also.
- ◉ Talk to your provider about your medicine choices if your ulcer was caused by aspirin, ibuprofen, or other NSAIDs.
- ◉ You may be able to take a different anti-inflammatory drug.

# **When to Call the Doctor**

- ◉ Develop sudden, sharp abdominal pain
- ◉ Have a rigid, hard abdomen that is tender to the touch
- ◉ Have symptoms of shock, such as fainting, excessive sweating, or confusion
- ◉ Vomit blood
- ◉ See blood in your stool (maroon, dark, or tarry black stools)

## **Call your health care provider if:**

- ◉ You feel dizzy or light-headed
- ◉ You have ulcer symptoms
- ◉ You feel full after eating a small meal portion
- ◉ You experience unintentional weight loss
- ◉ You are vomiting
- ◉ You lose your appetite



**Nursing  
Care  
Plan**



*Good Luck with Best Wishes*

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