

# **MODULE 6**

## **AIM**

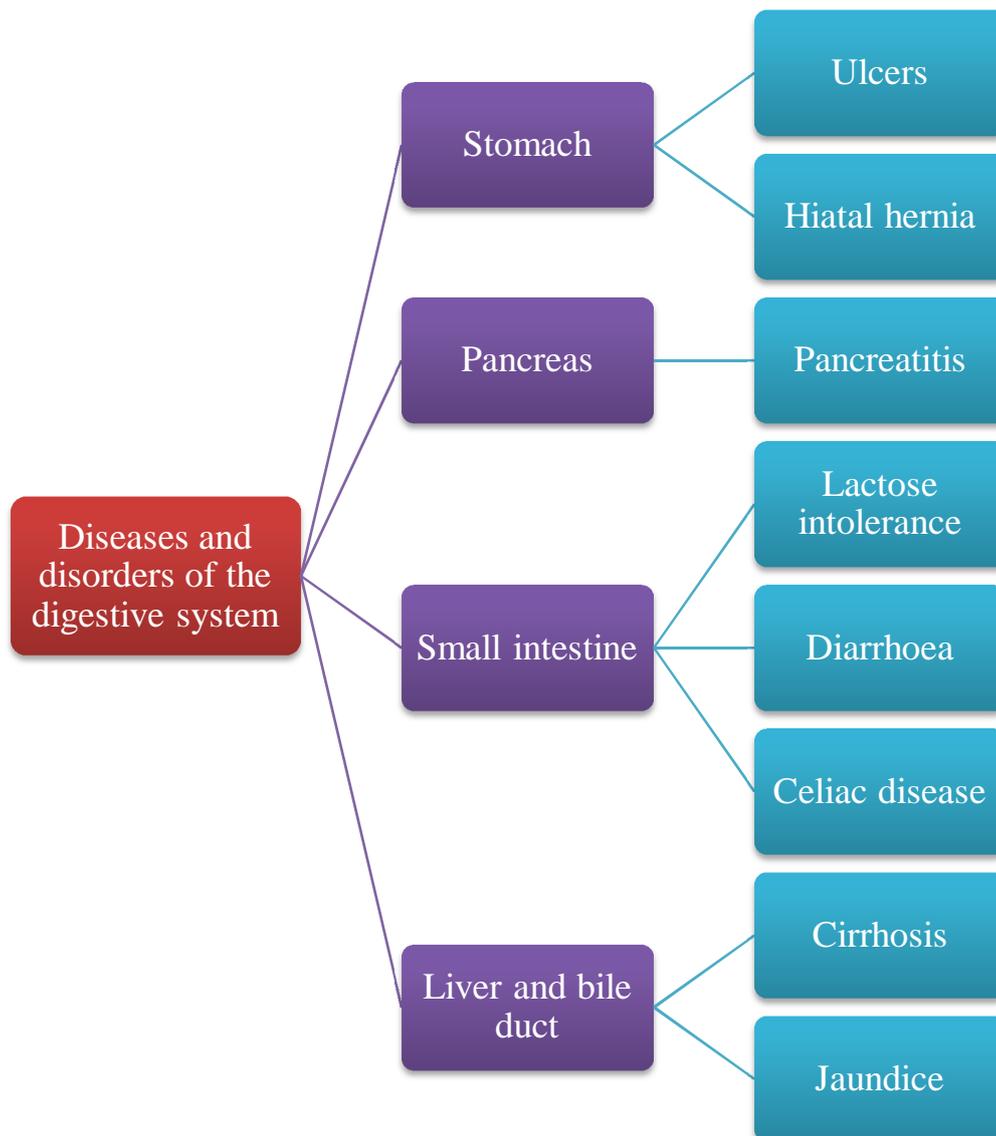
The aim of this module is to enable the students to develop understanding of the various diseases and disorders of the gastrointestinal tract.

## **CONTENTS AND OBJECTIVES**

- **Disorders of the stomach**
  - ✓ Gastric ulcers
  - ✓ Hiatal hernia
- **Disorders of the pancreas**
  - ✓ Pancreatitis
- **Disorders of the small intestine**
  - ✓ Lactose intolerance
  - ✓ Celiac disease
  - ✓ Diarrhoea

# DISEASES AND DISORDERS OF THE DIGESTIVE SYSTEM

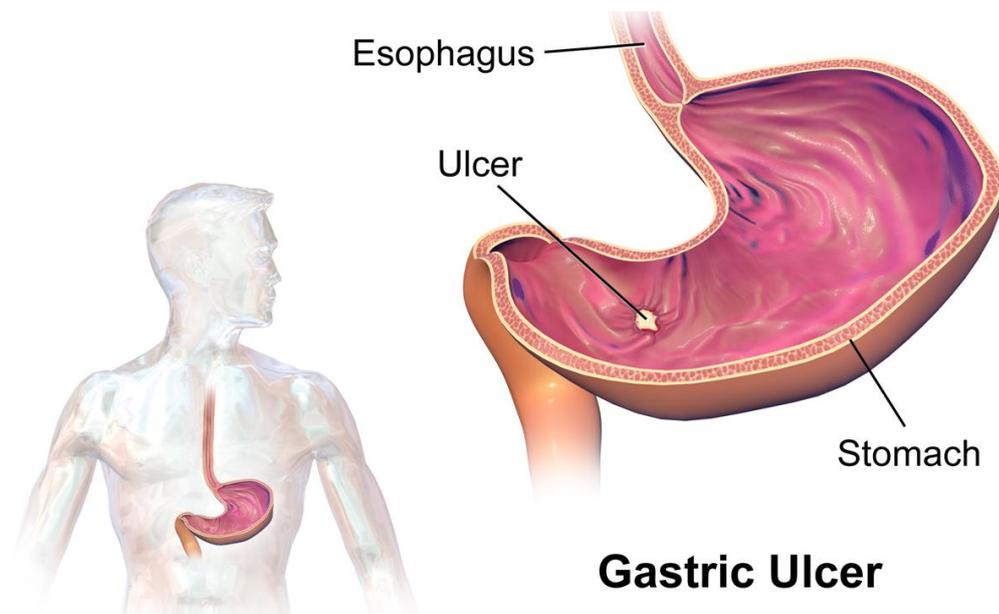
- Disorders of the gastrointestinal tract pose serious problems to the health of an individual and can affect different parts of the digestive system, including mouth, oesophagus, stomach, pancreas, liver, bile duct, intestines, etc.



## Disorders of the stomach

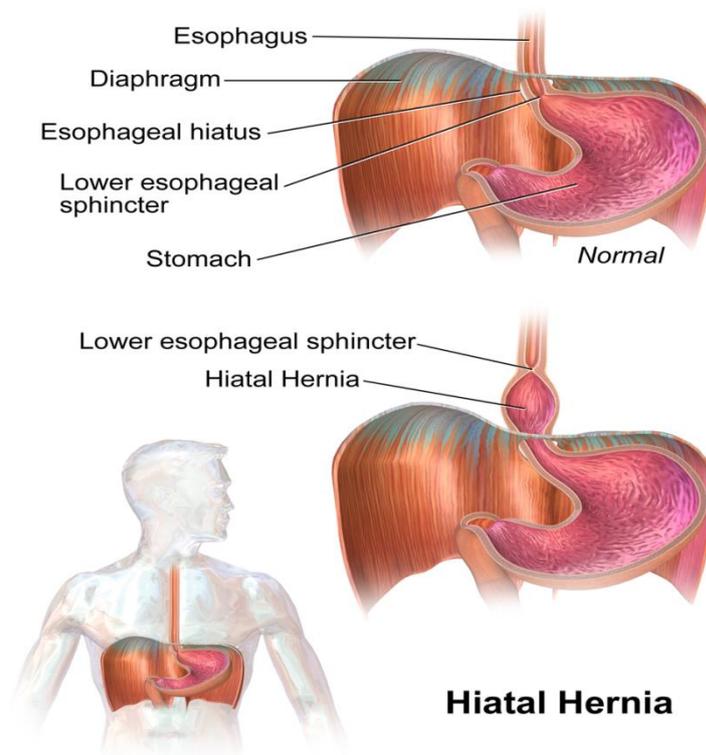
### Ulcers

- Production of digestive juices in the stomach in excessive amount results in the gastric ulcer formation.
- However, gastric ulcers are quite rare because the stomach is lined by a layer of epithelial cells which secrete alkaline mucosa.
- Most of the ulcers are duodenal ulcers.
- These are produced when acidic chime, overproduced by the stomach, is delivered into the duodenum. The excessive amount of acidic chime cannot be neutralized by the alkaline juice of intestine and pancreas.
- Infection by the bacterium *Helicobacter pylori* increases the susceptibility to ulcers.



## Hiatus hernia

- Hiatus is an opening in the diaphragm. Hiatus hernia occurs when the upper part of the stomach is dissolved through hiatus into the chest.
- The most common cause of a hiatal hernia is an increase in pressure in the abdominal cavity.
- The pressure can be exerted from coughing, vomiting, strain during a bowel movement, heavy lifting, or physical strain.
- Generally occurs in people age 50 and older.



## Disorders of the pancreas

### Pancreatitis

- It refers to the inflammation of pancreas.
- Pancreatic damage happens when digestive enzymes are activated before they are released into the small intestine and begin attacking the pancreas.
- It is of two types:
  - ✓ Acute pancreatitis- this type of pancreatitis is completely curable and lasts for a short period.
  - ✓ Chronic pancreatitis- It is a long-lasting inflammation of pancreas which happens mainly due to a prolonged episode of acute pancreatitis.
- Pancreatitis generally causes upper abdominal pain, swollen and tender abdomen and vomiting.

## Disorders of the Small Intestine

### **Lactose Intolerance**

- Lactose intolerance is a condition which arises when the body cannot synthesize lactase enzymes.
- This results in indigestion of lactose which is typically found in milk and dairy products.
- The symptoms include abdominal pain, bloating, diarrhoea, and nasusea.

### Celiac Disease

- Celiac disease is a rare genetic disease.
- It causes inflammation of the small intestine and is induced when wheat protein (gluten) and its products are consumed.
- When people with celiac disease eat foods containing gluten their immune system responds by damaging the finger-like villi of the small intestine. The damaged villi render the small intestine incapable of absorbing nutrients into the bloodstream leading to malnutrition.

## **Diarrhoea**

- Diarrhoea refers to excessive passage of feces that are larger in volume and more fluid than normal.
- It is not a disease but a symptom of some underlying conditions that lead to abrupt increase in intestinal movements.
- The accelerated movement of the contents through the alimentary canal leaves no time for fluid reabsorption and produces watery stools.
- Diarrhoea is basically a symptom of a bowel infection which can be caused by a virus or bacteria which cause food poisoning.