

POWERPOINTS TO ACCOMPANY

Physical Change and Aging: A Guide for the Helping Professions, Seventh Edition

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Chapter 10: The Gastrointestinal System

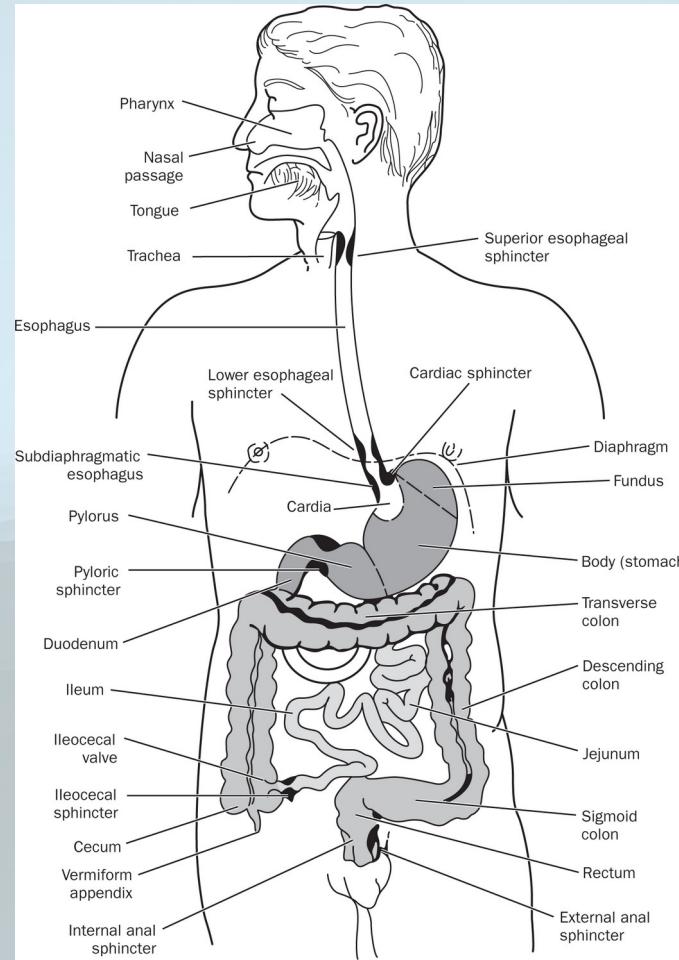


Components of the Gastrointestinal System

- **Alimentary canal**
 - **Mouth**
 - **Pharynx**
 - **Esophagus**
 - **Stomach**
 - **Small intestine**
 - Duodenum
 - Jejunum
 - Ileum
 - **Large intestine**
- **Accessory organs and glands**
 - **Teeth**
 - **Tongue**
 - **Gallbladder**
 - **Liver**
 - **Pancreas**
 - **Salivary glands**



The Gastrointestinal/Digestive System





Digestion

1. Food enters mouth (ingestion)
2. Food is propelled
 - Swallowing
 - Peristalsis
3. Mechanical digestion
 - Chewing
 - Churning in stomach
 - Rhythmic contractions in small intestine
4. Chemical digestion
 - Enzymes break down large molecules
5. Nutrients absorbed
 - Bloodstream
6. Wastes expelled
 - Large intestine to anus



Age-Related Changes in the Gastrointestinal System

- Overall
 - **Digestion slows, is less efficient**
 - **Lifestyle factors more to blame than age:**
 - Poor dietary choices
 - Lack of adequate fluid intake
 - Lack of bulk in diet
 - Excessive straining when defecating
 - Lack of exercise



Age-Related Changes in the Gastrointestinal System (cont.)

- Mouth
 - Wear of tooth enamel and dentin
 - Loss of teeth
 - Decrease in saliva production
 - Slowing of chewing and swallowing
 - Taste buds decrease
- Esophagus
 - Delayed emptying of food into stomach
- Stomach
 - Slowing of gastric emptying
- Small intestine
 - Decrease in enzyme secretion
 - Slower peristalsis
- Large intestine
 - Decreased anal sphincter tone and muscle tone

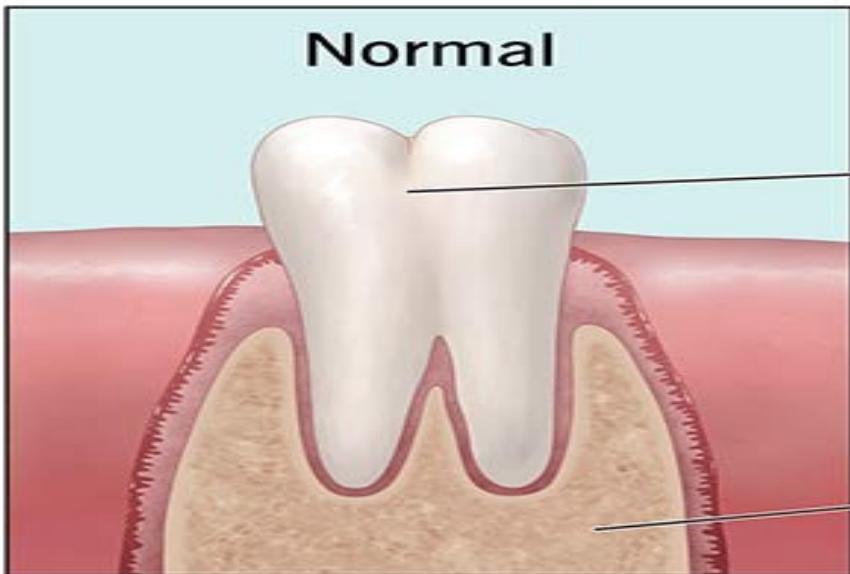


Age-Related Disorders of the Gastrointestinal System

- Mouth
 - **Xerostomia (dry mouth)**
 - **Dysphagia (difficulty swallowing)**
 - **Dental caries (cavities)**
 - **Periodontal disease (Inflammation of the gums/tissue around the teeth)**
 - **Oral cancer (cancer in the mouth, tongue, gums, lining of the cheeks, associated with smoking and alcohol consumption)**
- Esophagus
 - **Cancer of the esophagus**
 - **Gastroesophageal reflux disease (GERD)**
 - **Hiatal hernia**
- Stomach
 - **Gastritis (inflammation)**
 - **Gastric (peptic) ulcer**
 - **Cancer of the stomach**

Periodontal Disease

Normal



Gingivitis

Tooth

Inflamed
gums

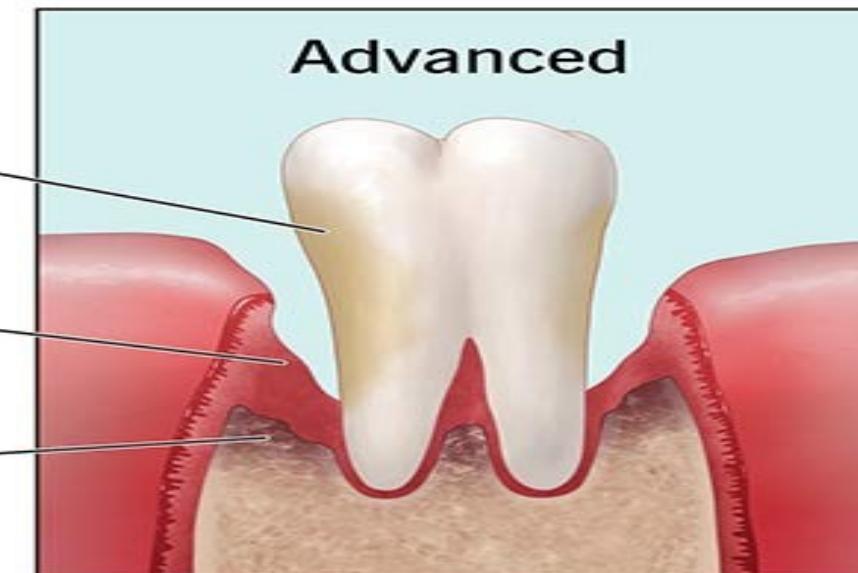
Bone



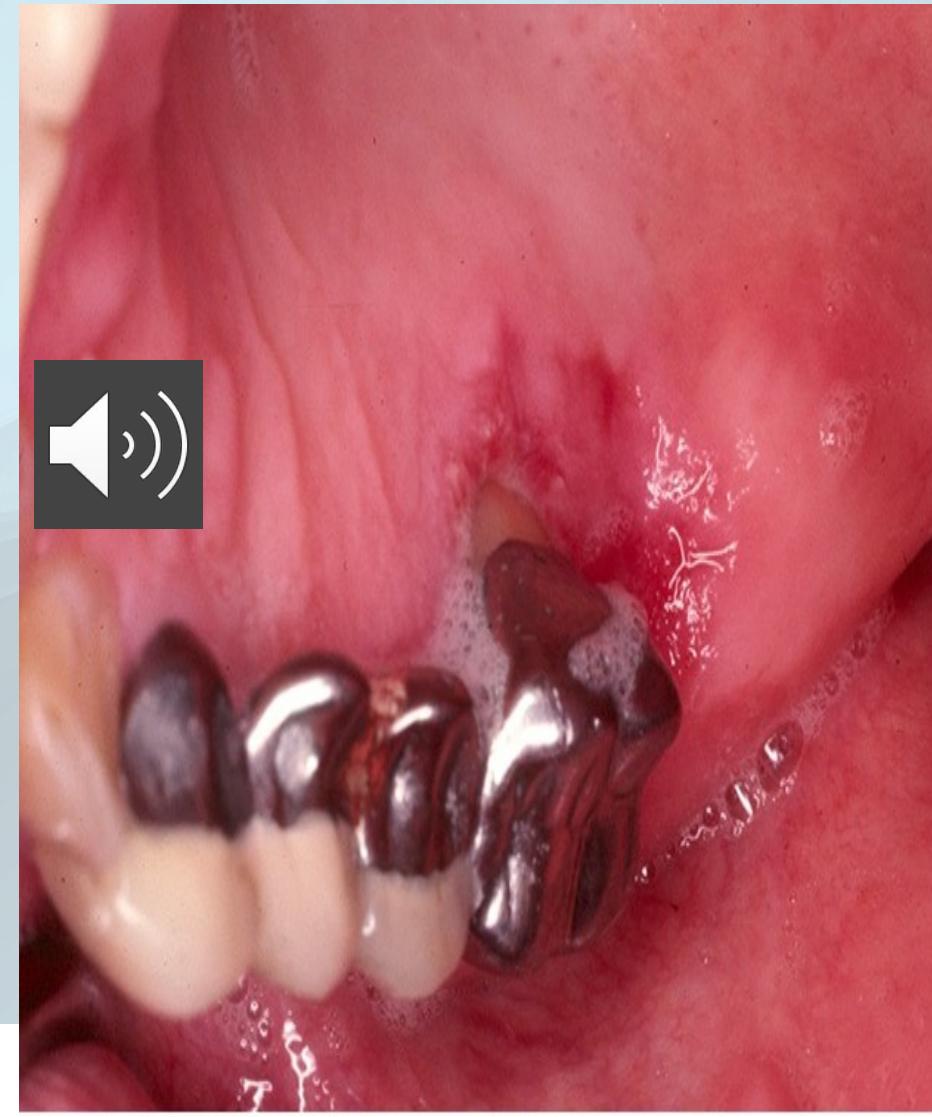
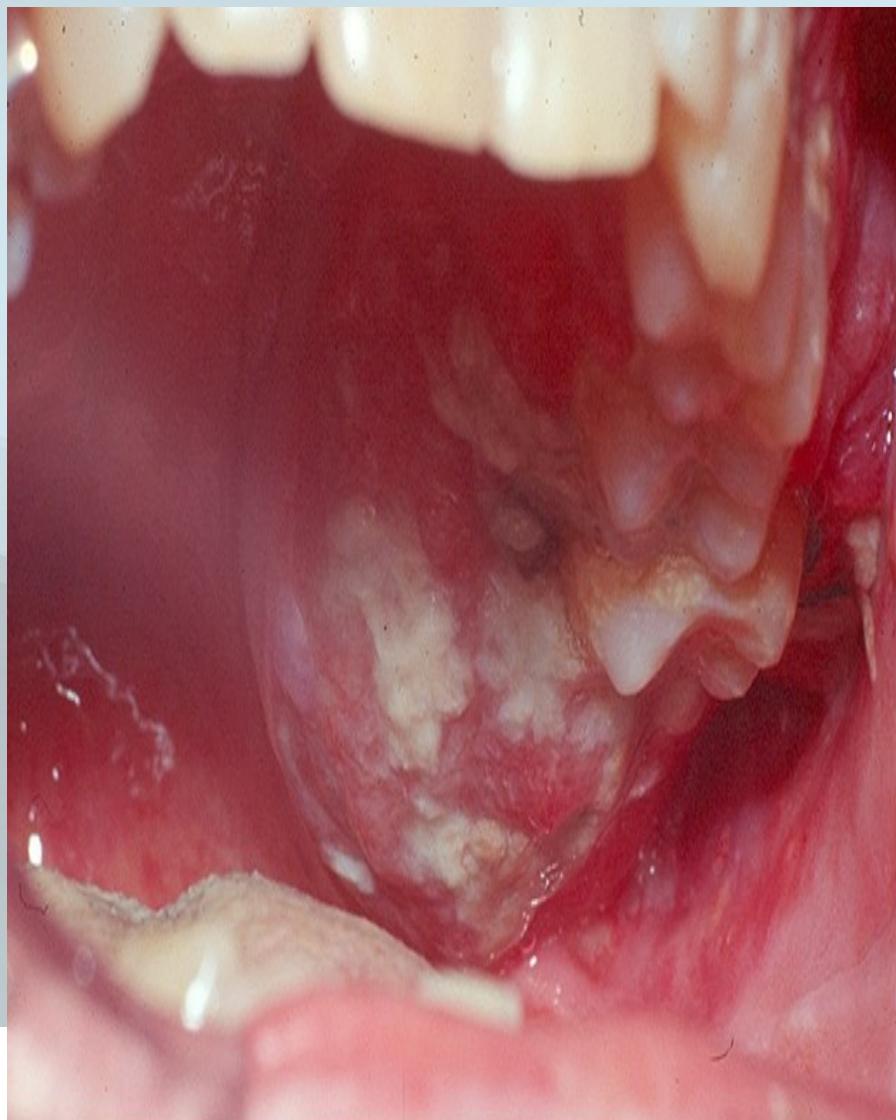
Mild / moderate



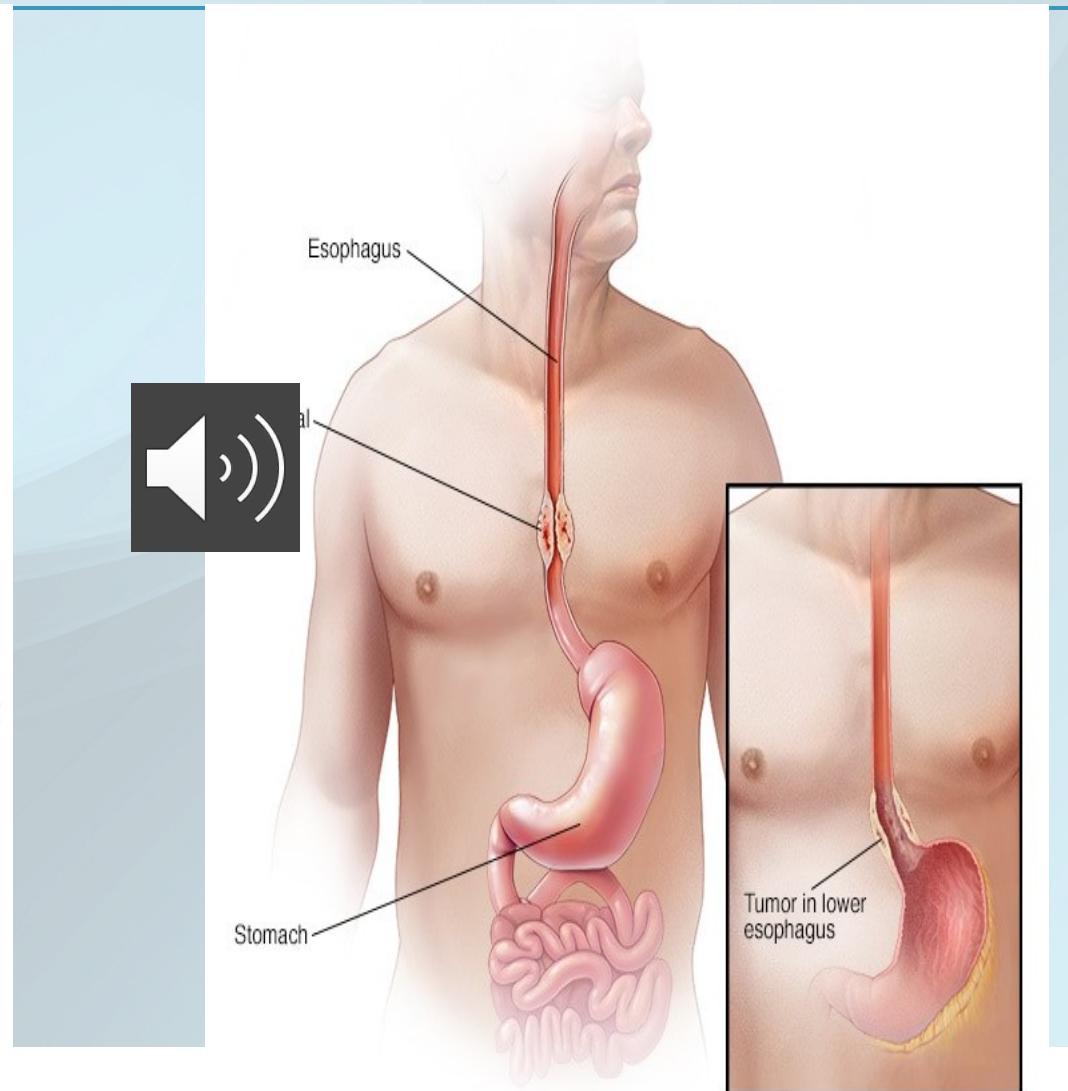
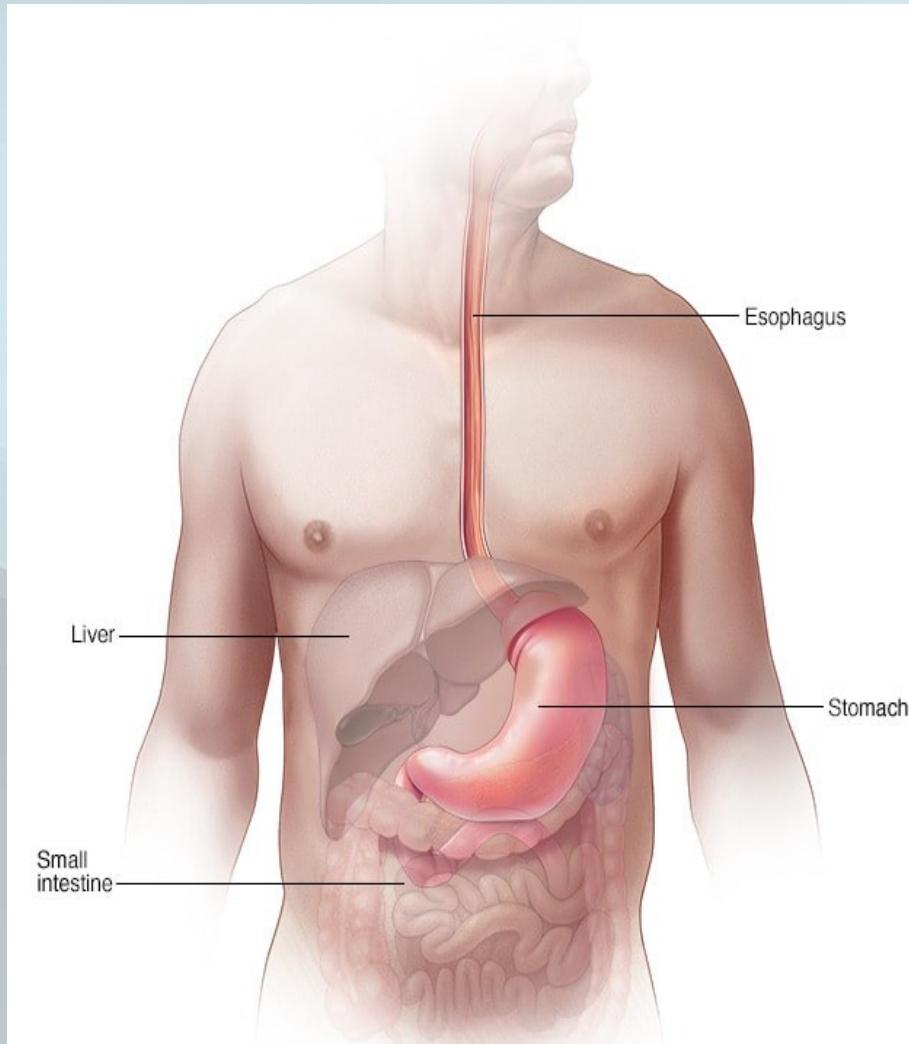
Advanced



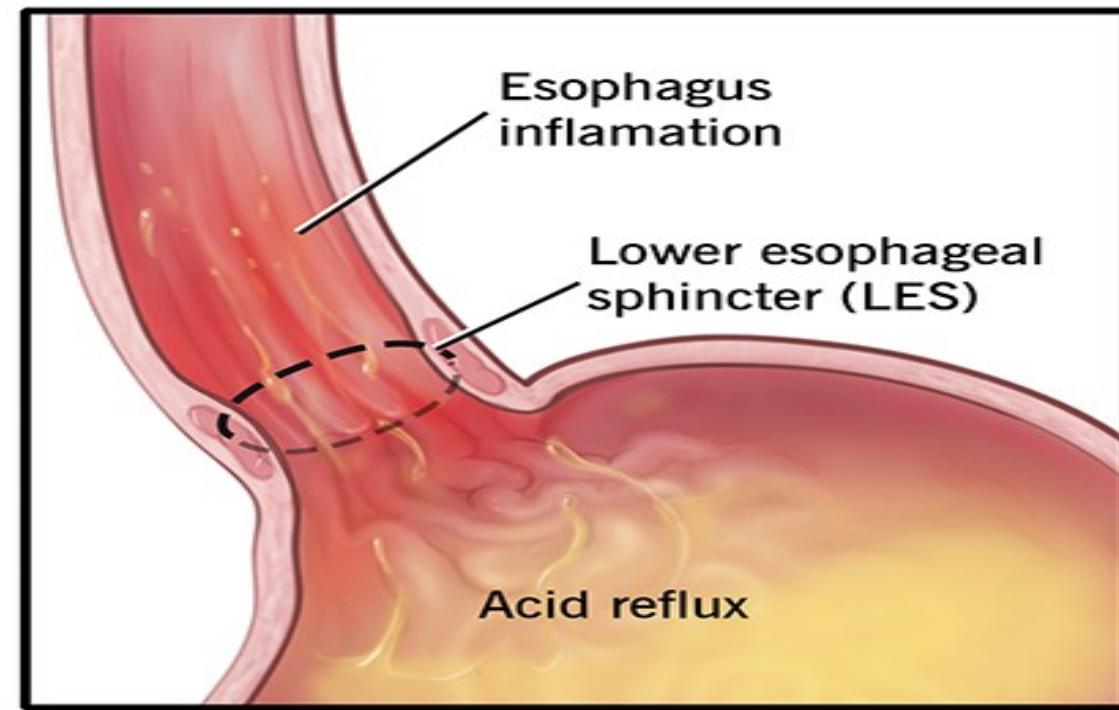
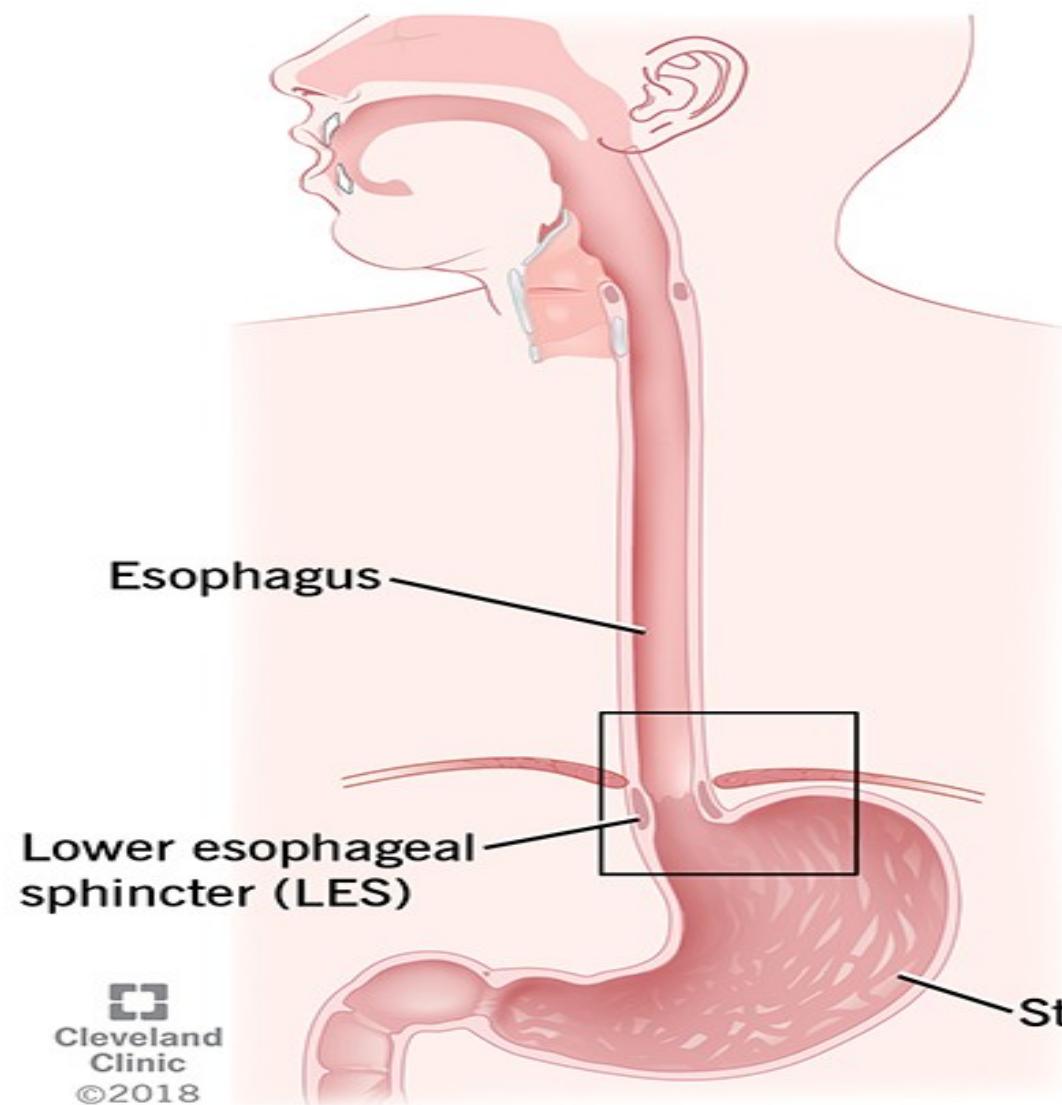
Mouth Cancer



Cancer of the Esophagus

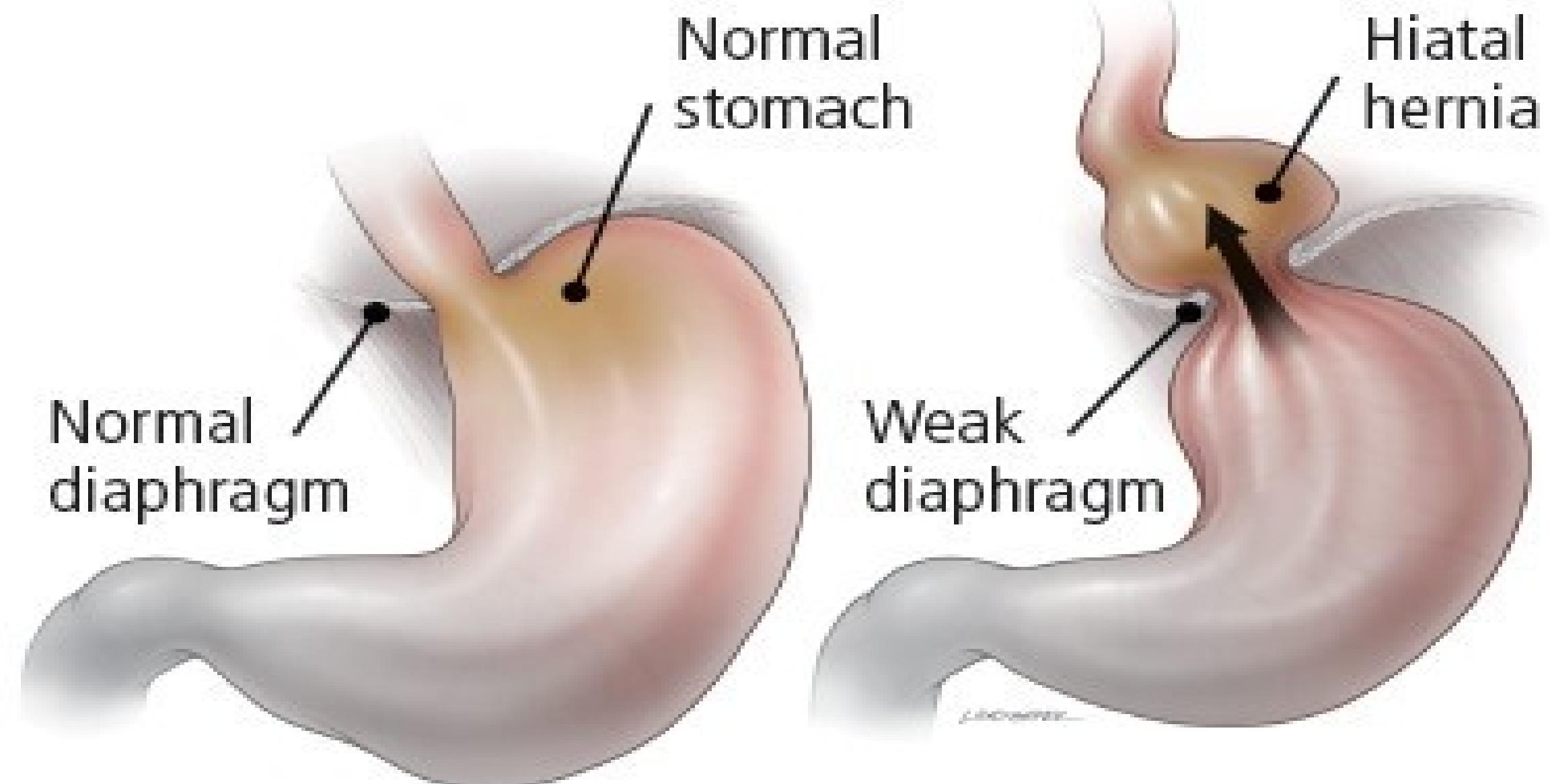


Gastroesophageal Reflux (GERD)

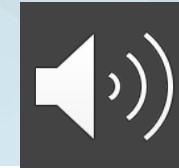




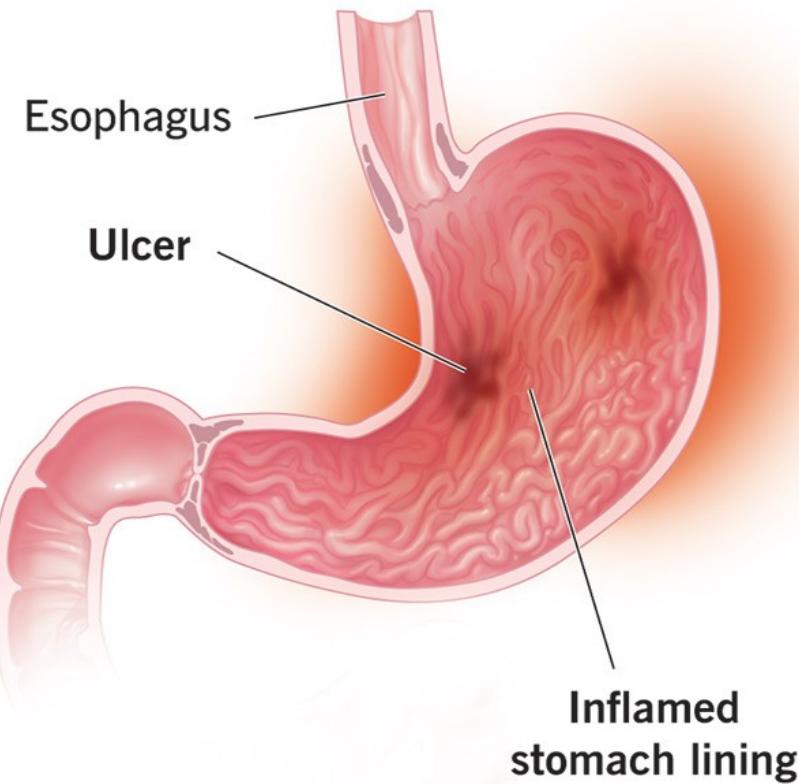
Hiatal Hernia



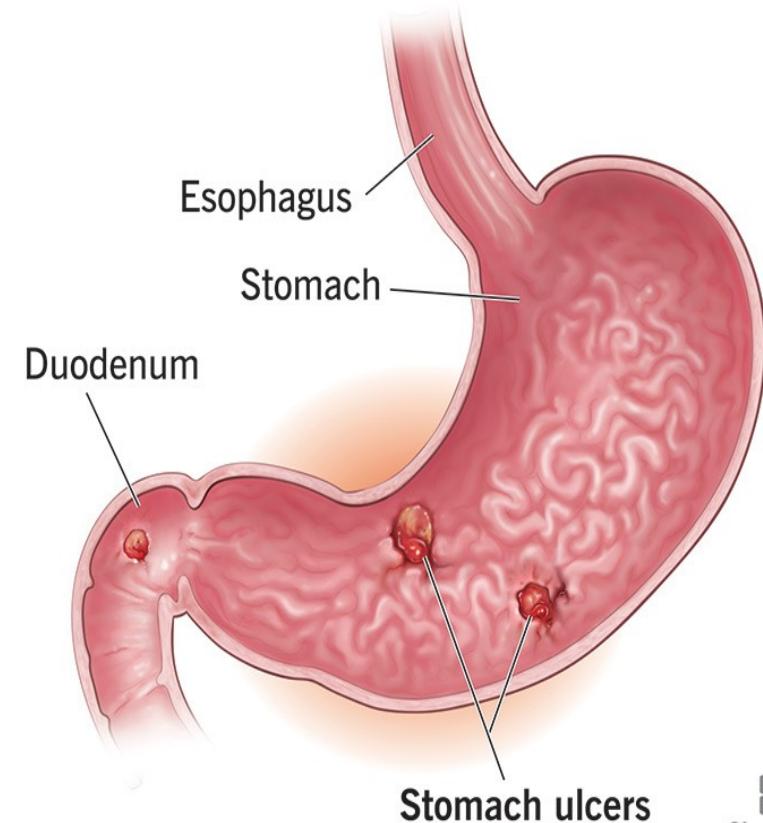
Gastritis and Gastric/Peptic Ulcer



Gastritis



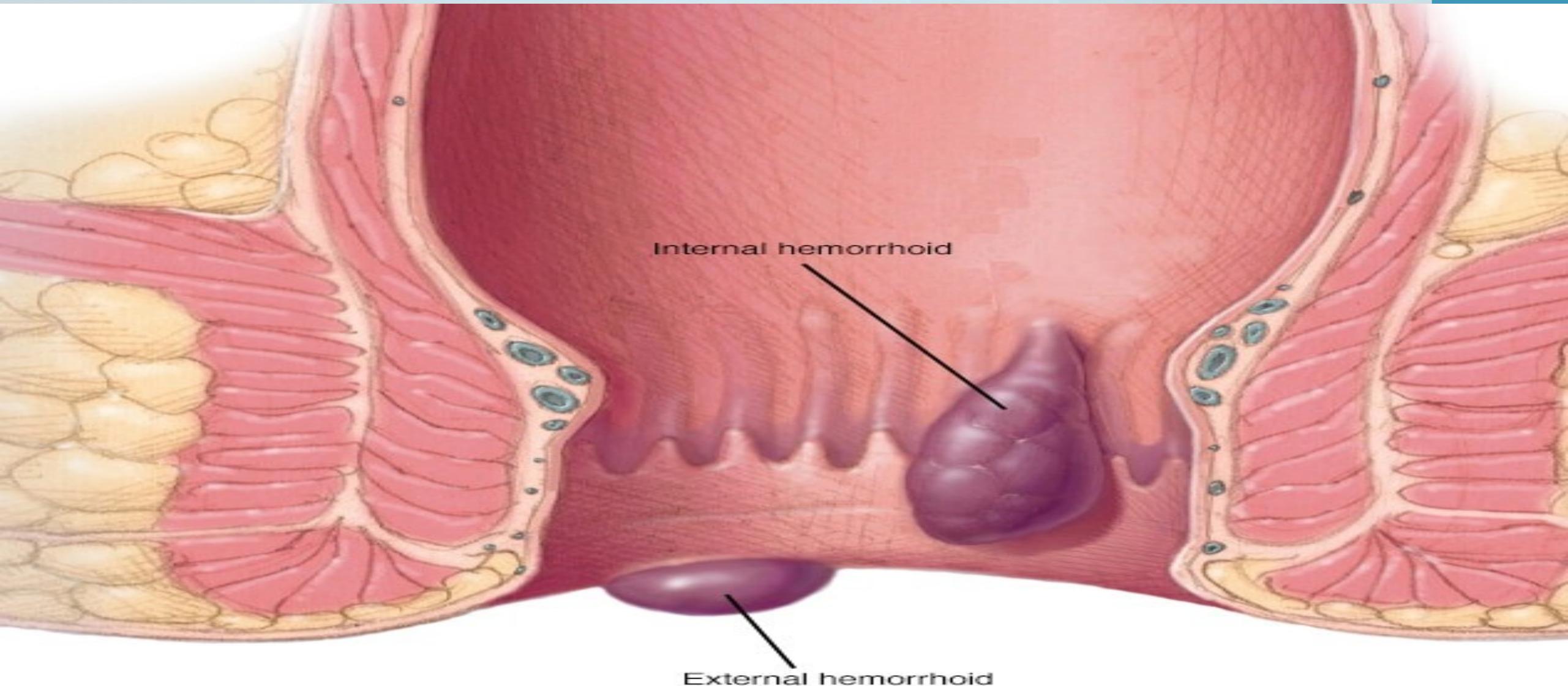
Peptic ulcer disease



Age-Related Disorders of the Gastrointestinal System (cont.)

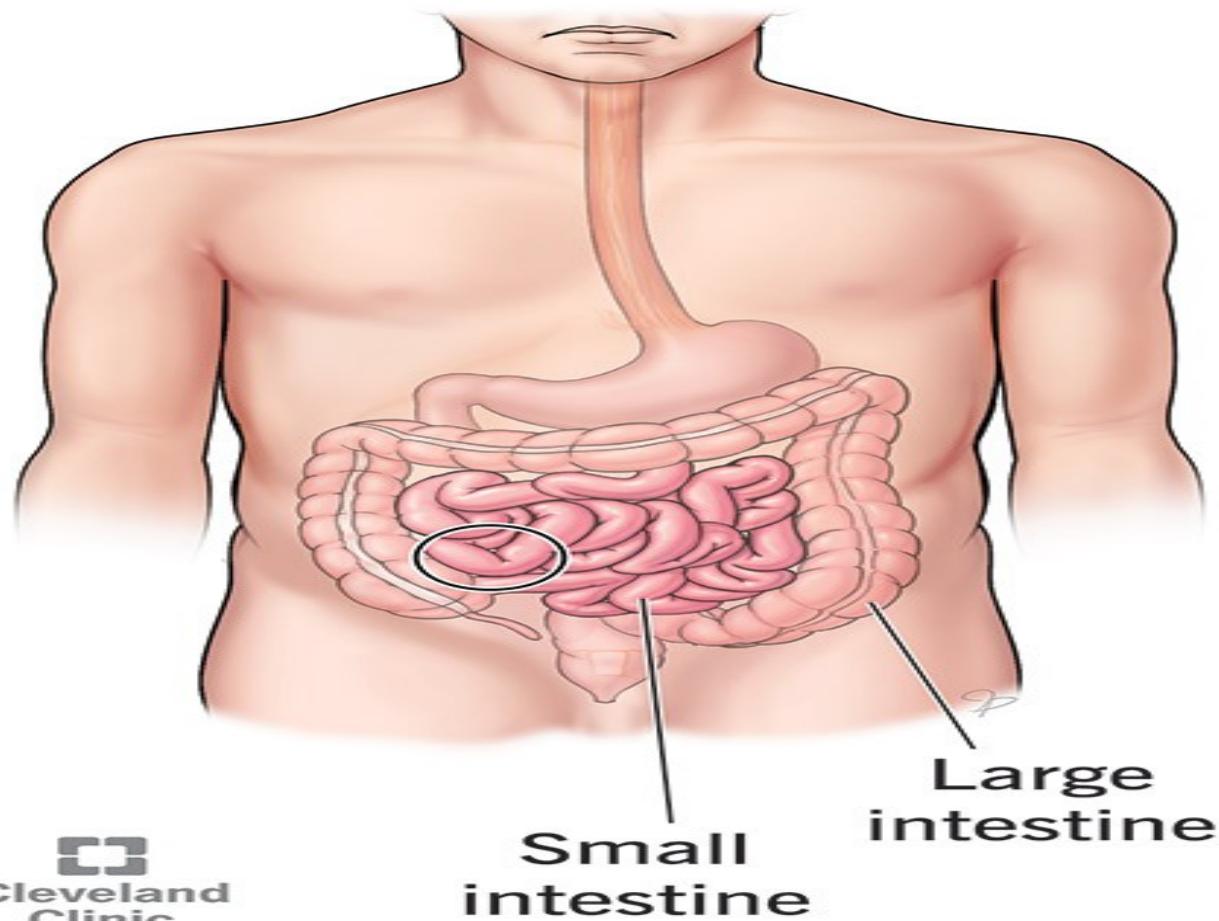
- Small intestine
 - Obstruction
 - Cancer
- Other
 - Cancer of the pancreas
 - Cirrhosis (liver)
 - Gallstones (gallbladder)
- Large intestine
 - Appendicitis
 - Diarrhea
 - Constipation
 - Diverticulosis and diverticulitis
 - Cancer of the colon and rectum
 - Hemorrhoids

Hemorrhoids

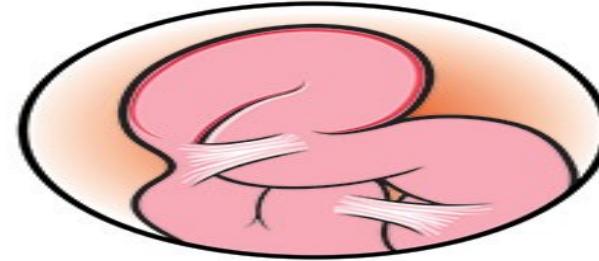




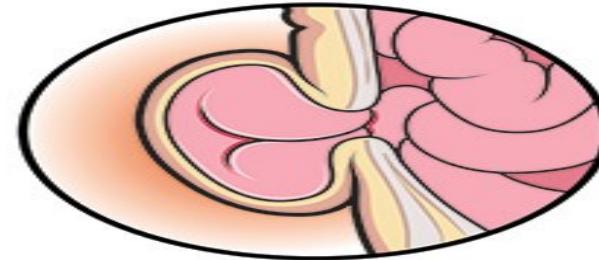
Bowel obstruction



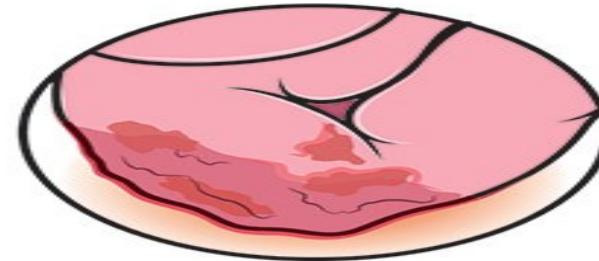
Adhesions



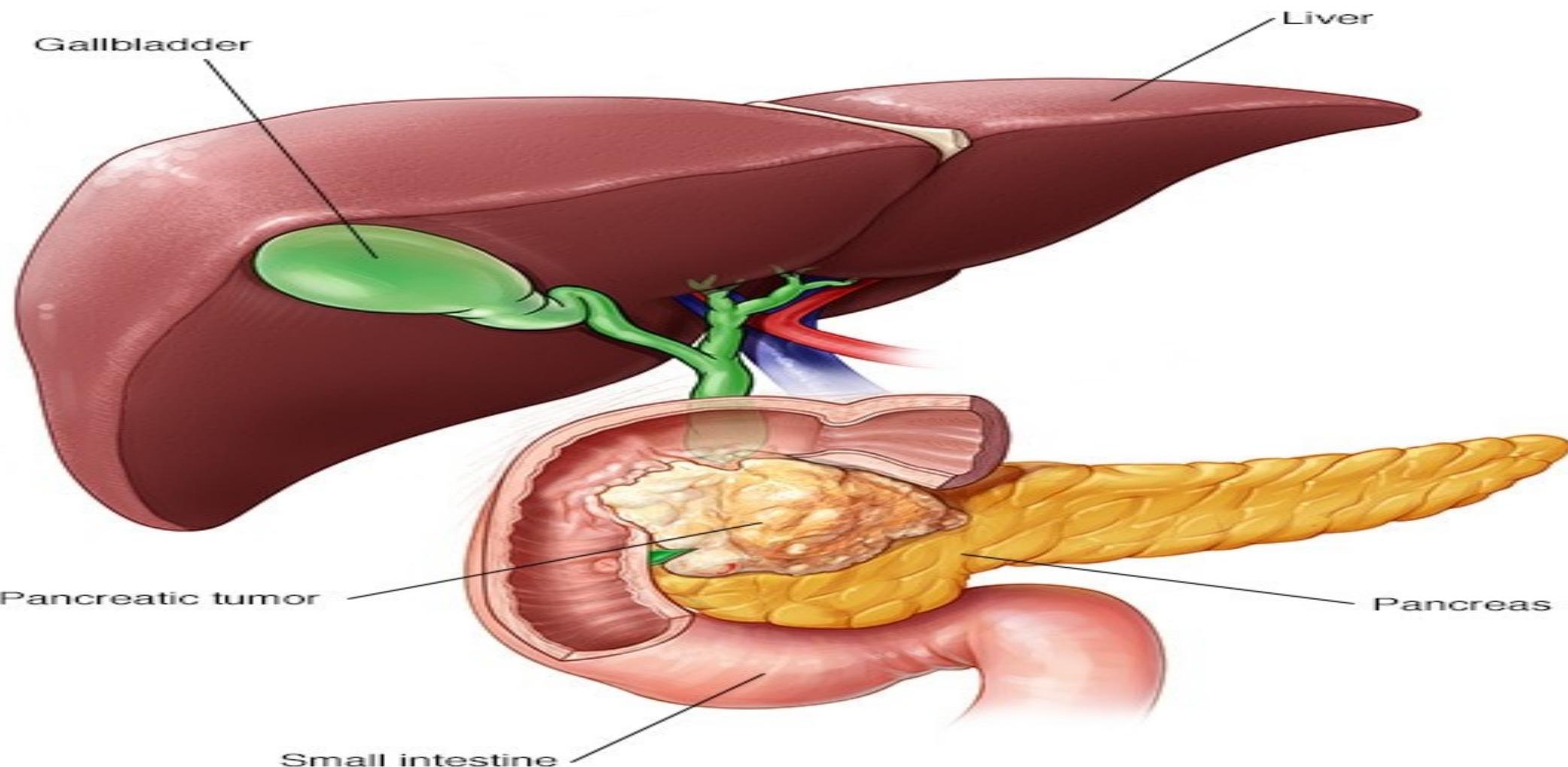
Herniation



Cancer

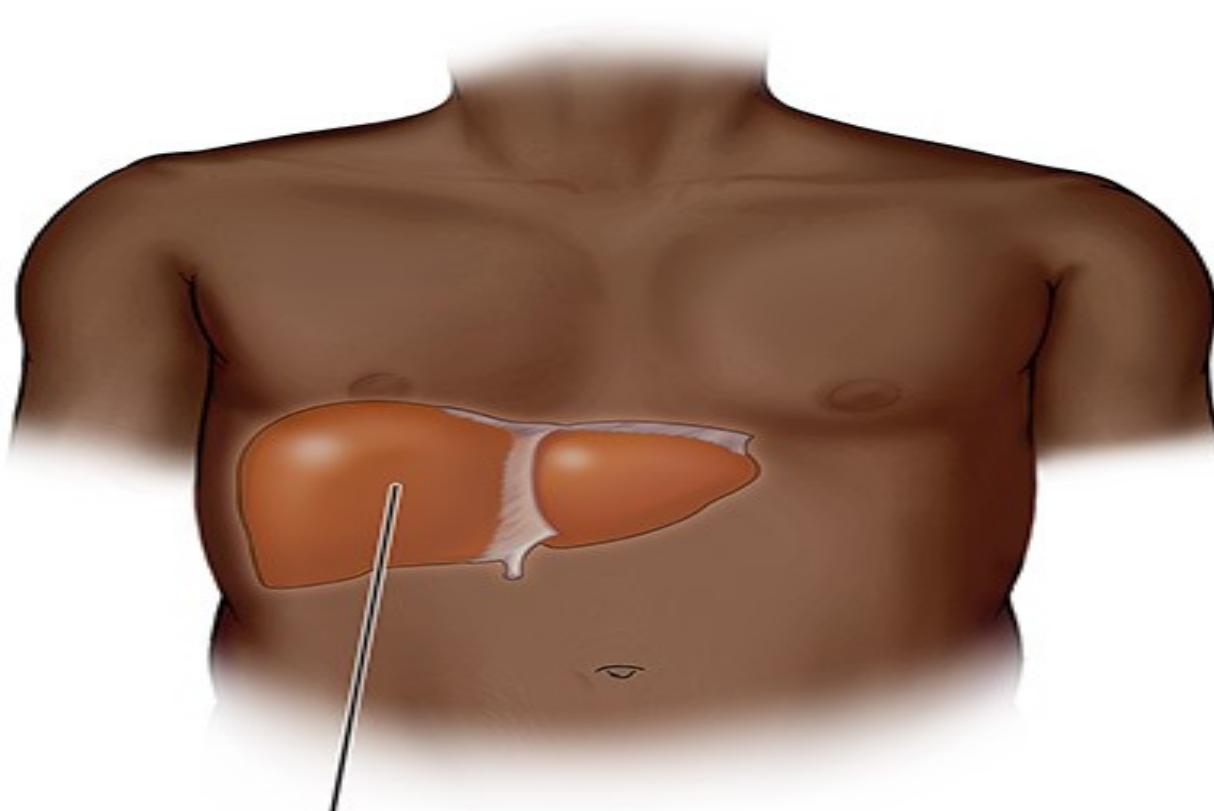


Pancreatic Cancer



Cirrhosis of the liver

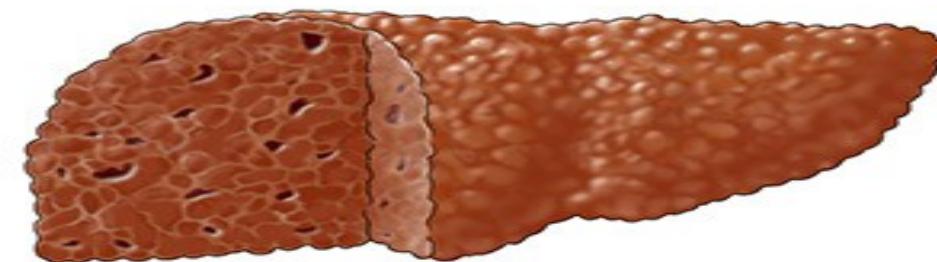
Late stage liver disease



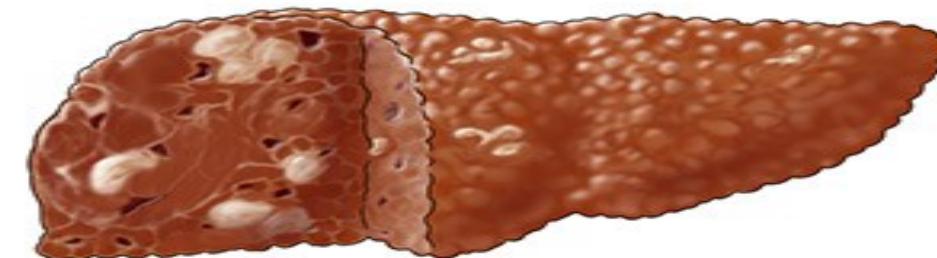
Liver location



Healthy liver

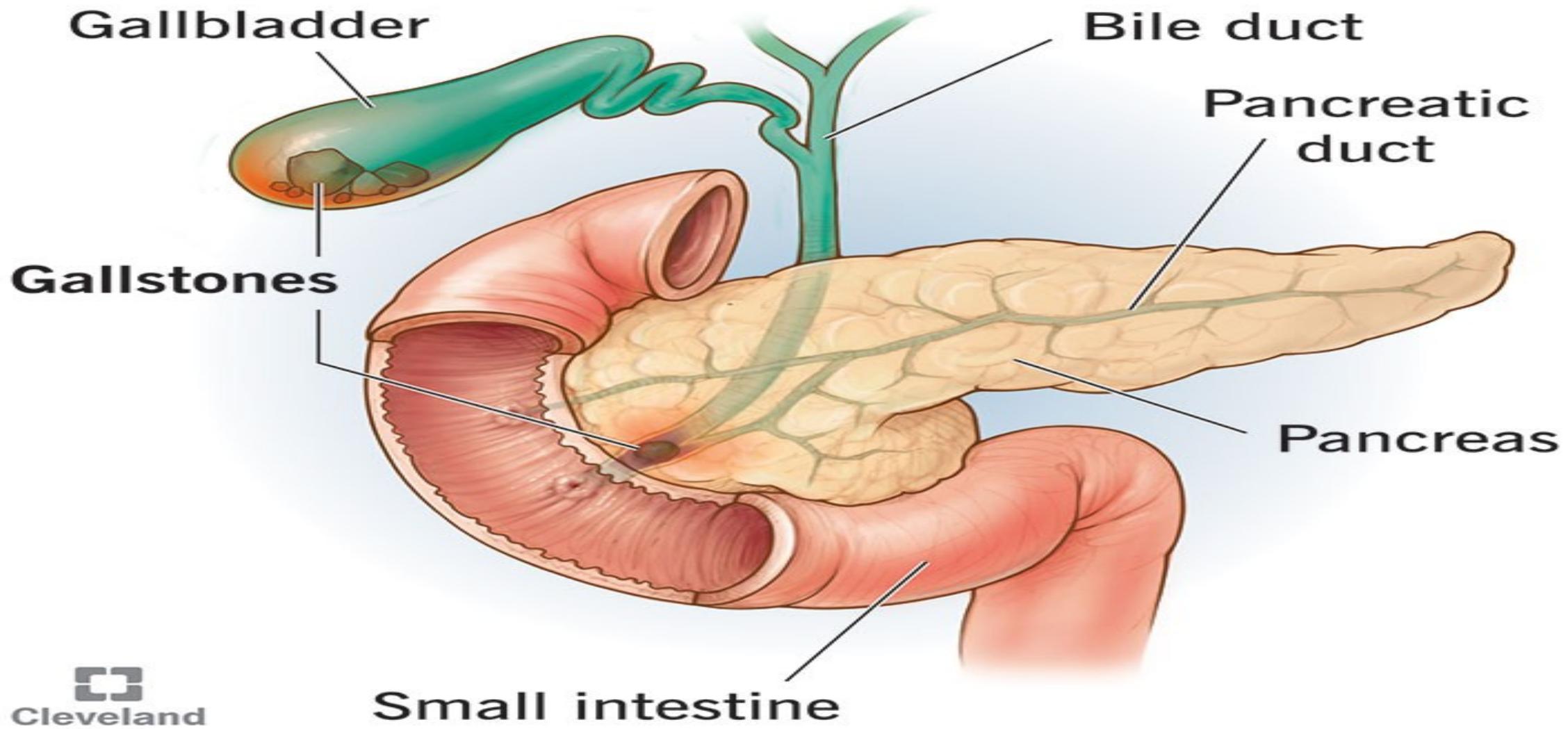


Compensated cirrhosis
(stage three liver disease)

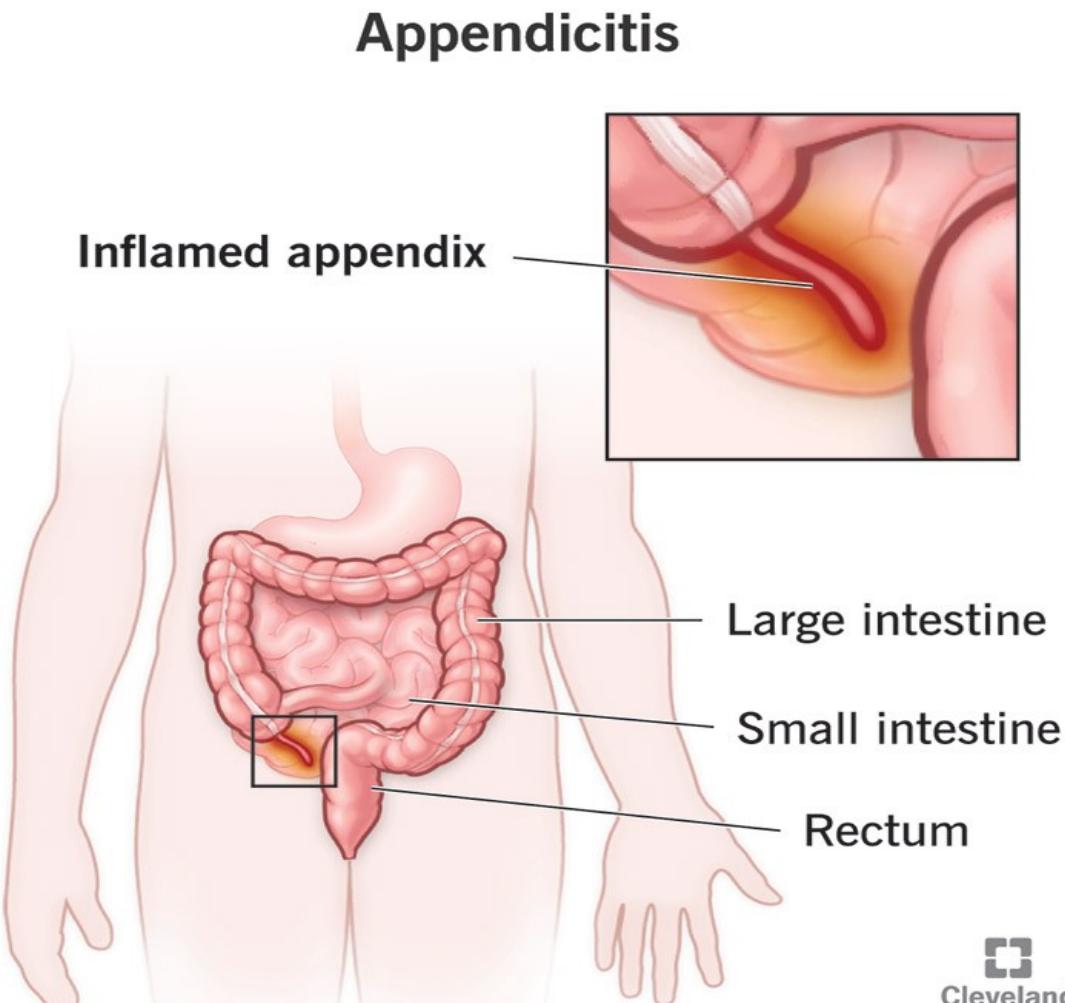


Decompensated cirrhosis
(stage four liver disease)

Gallstones



Appendicitis and Diarrhea



Chronic Diarrhea

POSSIBLE CAUSES



Coffee/Tea.



Alcohol.



Specific sugars.



Food intolerances.

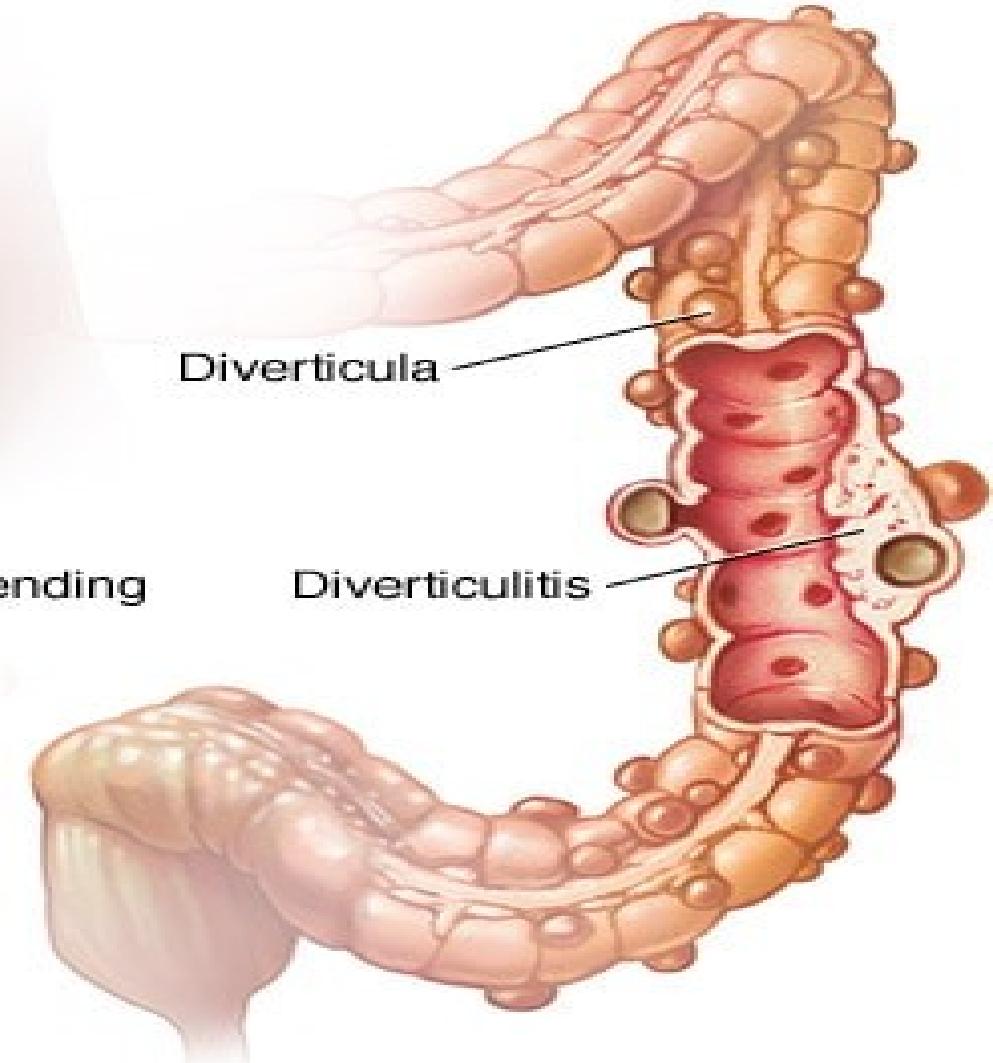
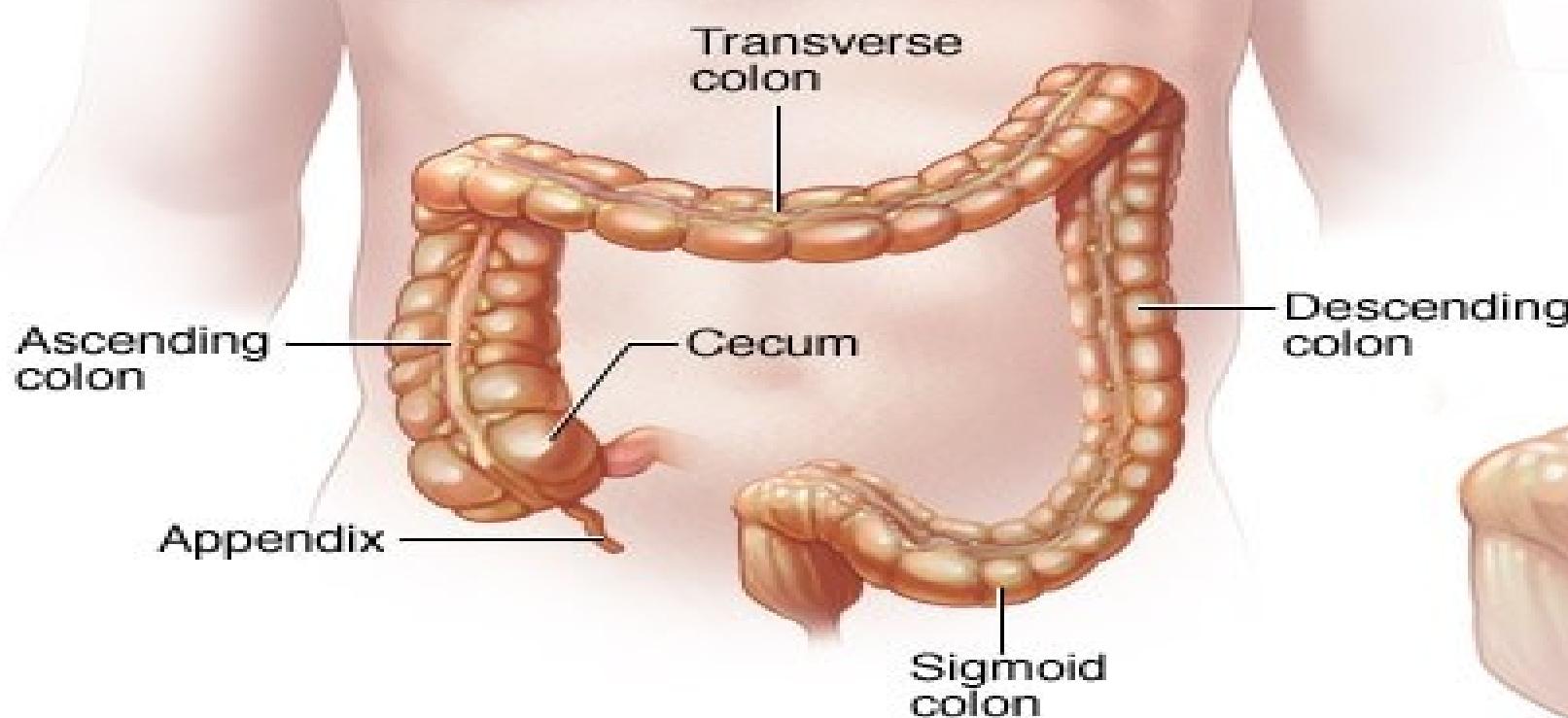


Medications.



Supplements.

Diverticulitis and Diverticulosis





Colon Cancer

Colon cancer



Ascending colon

Transverse colon

Descending colon

Rectum

Sigmoid colon



- Eat a healthy diet with adequate fiber, fruits, vegetables, whole grains, low fat meats like poultry and fish, healthy oils like olive oil, and hydration.
- Engage in regular exercise: at least 150 min/week aerobic exercise and 2-3 times week strength training.
- Have regular check ups with your health care provider and have regular screening for colon cancer such as colonoscopy.
- Have regular dental check ups.