

# **The Digestive System**

## **I. Overview of the digestive system**

### **A. Functions of the digestive system**

### **B. Components of the digestive system**

1. Alimentary canal
2. Accessory digestive organs

### **C. Digestive processes**

1. Ingestion
2. Propulsion
3. Mechanical digestion
4. Chemical digestion
5. Absorption
6. Defecation

### **D. Peritoneum**

1. Parietal peritoneum
2. Visceral peritoneum
3. Mesentery
4. Peritoneal cavity
5. Retroperitoneal organs

### **E. Histology**

1. Mucosa
  - a. Epithelium
  - b. Lamina propria
  - c. Muscularis mucosae
2. Submucosa
3. Muscularis externa
  - a. Circular layer
  - b. Longitudinal layer
4. Serosa
  - a. Connective tissue
  - b. Epithelium
5. Adventitia

## **II. Mouth and associated organs**

### **A. Mouth**

1. Functions
2. Boundaries
3. Oral orifice
4. Lips
  - a. Orbicularis oris
  - b. Red margin
5. Cheeks
  - a. Buccinators
6. Vestibule
7. Palate
  - a. Hard palate
  - b. Soft palate
    - i. Uvula

- ii. Palatoglossal arches
- iii. Palatopharyngeal arches

**B. Tongue**

- 1. Functions
- 2. Muscles
  - a. Intrinsic muscles
  - b. Extrinsic muscles
- 3. Papillae
  - a. Filiform papillae
  - b. Fungiform, foliate, and circumvallate papillae

**C. Salivary glands**

- 1. Functions
- 2. Intrinsic salivary glands
- 3. Extrinsic salivary glands
  - a. Parotid gland
  - b. Submandibular gland
  - c. Sublingual gland

**D. Teeth**

- 1. Functions
- 2. Permanent teeth
  - a. Incisors
  - b. Canines
  - c. Premolars
  - d. Molars
- 3. Deciduous teeth
- 4. Tooth structure
  - a. Crown
    - i. Enamel
    - ii. Pulp cavity
  - b. Root
    - i. Cementum
    - ii. Periodontal ligament
    - iii. Root canal
    - iv. Apical foramen
  - c. Neck
  - d. Dentin

**III. Pharynx**

- A. Functions
- B. Oropharynx
- C. Laryngopharynx

**IV. Esophagus**

- A. Functions
- B. Epiglottis
- C. Cardiac orifice
  - 1. Gastroesophageal sphincter
- D. Histology
  - 1. Mucosa
  - 2. Submucosa
  - 3. Muscularis externa

**4. Adventitia**

**V. Stomach**

**A. Functions**

**B. Regions**

**1. Cardia**

**2. Fundus**

**3. Body**

**4. Pyloric region**

**a. Pyloric antrum**

**b. Pyloric canal**

**c. Pylorus**

**C. Mesenteries**

**1. Lesser omentum**

**2. Greater omentum**

**D. Histology**

**1. Mucosa**

**a. Rugae**

**b. Gastric pits**

**c. Gastric glands**

**i. Parietal cells**

**ii. Chief cells**

**2. Submucosa**

**3. Muscularis externa**

**4. Serosa**

**VI. Small intestine and associated organs**

**A. Small intestine**

**1. Functions**

**2. Regions**

**a. Duodenum**

**i. Hepatopancreatic ampulla**

**b. Jejunum**

**c. Ileum**

**i. Ileocecal valve**

**3. Histology**

**a. Mucosa**

**i. Circular folds**

**ii. Villi**

**A. Lacteal**

**iii. Intestinal crypts**

**iv. Microvilli**

**b. Submucosa**

**i. Duodenal glands**

**ii. Peyer's patches**

**c. Muscularis externa**

**d. Serosa**

**B. Liver**

**1. Functions**

**2. Lobes**

**a. Right lobe**

- C. Gallbladder**
  - 1. Functions
  - 2. Cystic duct
- D. Pancreas**
  - 1. Functions
  - 2. Main pancreatic duct
  - 3. Accessory pancreatic duct
  - 4. Acini
    - a. Zymogen granules

1. Teniae coli
2. Haustra
3. Epiploic appendages
4. Mesocolons
  - a. Transverse mesocolon
  - b. Sigmoid mesocolon
5. Bacterial flora