The Digestive System

Functions of the Digestive System:

Aka - the alimentary system

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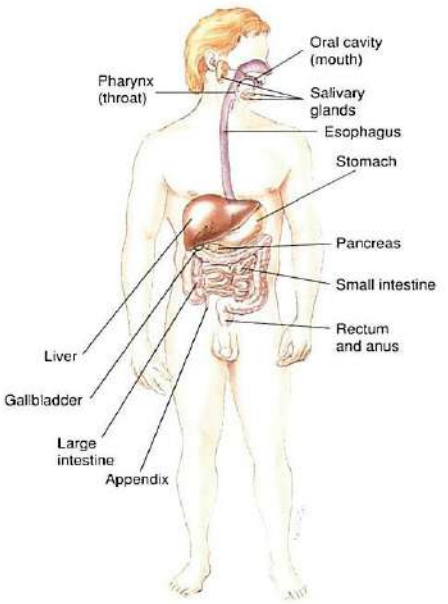
-
-

Structures of the Digestive System:

The Gastrointestinal Tract - (GI Tract)

- **Upper GI tract -**

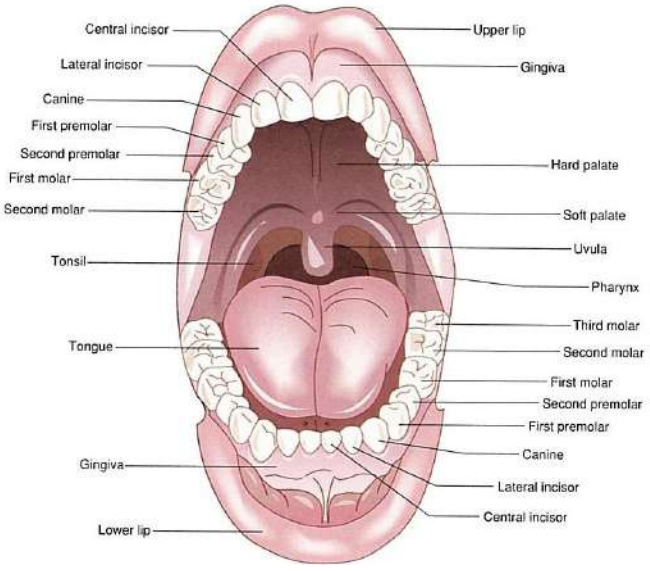
- **Lower GI tract -**



The Oral Cavity - Mouth

- **<u>The Lips</u>:** (labia)
    - cheil/o = lips

- **<u>The Palate</u>**:
    - Hard Palate - bony anterior portion of the roof the mouth
    - Rugae -
    - Soft Palate - flexible posterior portion of the palate
        -
        - Uvula –



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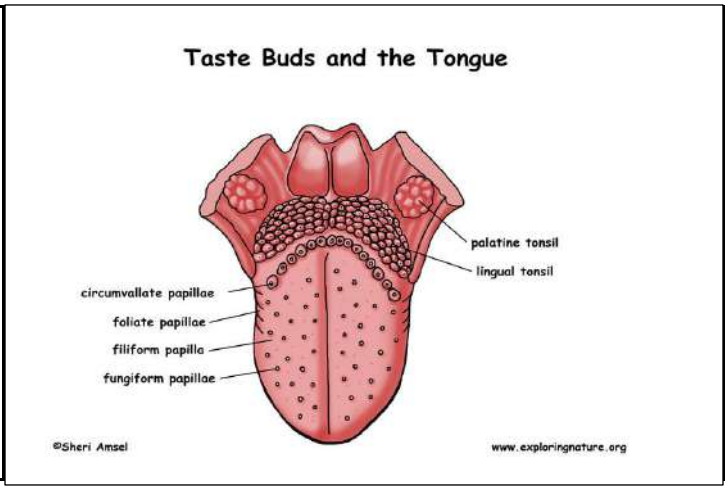
- **<u>The Tongue</u>:** very strong and flexible; aids in speech and moves food during chewing and swallowing
  - Papillae - (taste buds)

    _____

    _____
  - Underside of the tongue

    _____

    _____



- **<u>Terms Related to the Teeth</u>:**
  - Dentition - natural teeth arrangement in the

    _____
  - Endentulous - _____
  - 4 types of teeth -
    - incisors and canines (cuspids):
    - premolars (bicuspids) and molars:
  - Primary dentition (deciduous dentition/baby teeth) - _____
  - Permanent dentition - consists of _____
  - Occlusion - contact between the chewing surfaces of the maxillary and mandibular teeth
  - Malocclusion - deviation from a normal occlusion

- **<u>Structures and Tissues of the Teeth</u>:**

Crown - portion of the tooth that is visible

- _____

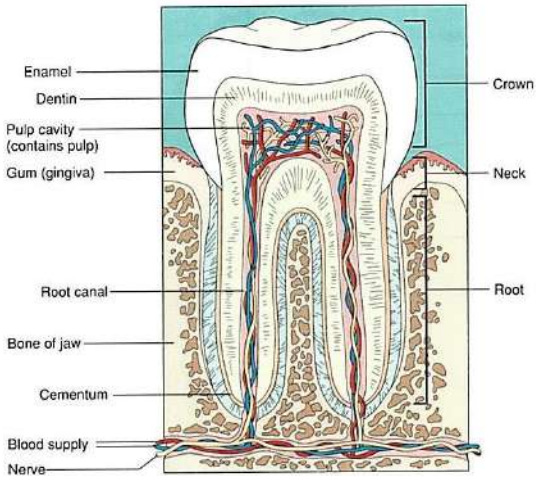
Root - holds the tooth securely in place within the dental arch

- protected by _____
- crown and root meet at the _____ of the tooth

Dentin - makes up the bulk of the tooth

- _____

  _____

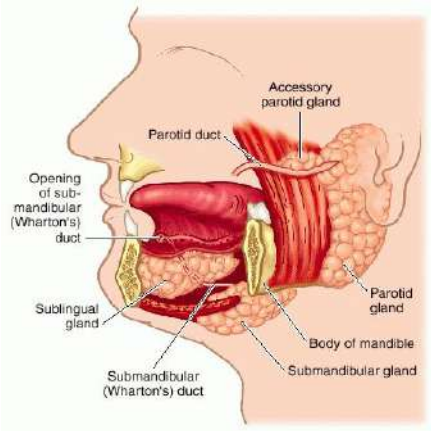


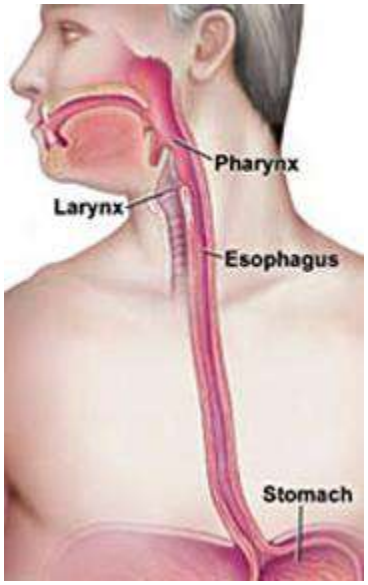
The Digestive System

Pulp Chamber - inner area of the crown and runs downward to form the _____ ● _____ is made up of a rich supply of blood vessels and nerves	

- The Periodontium: consists of the bone and soft tissues that surround and support the teeth
    - **Gingiva** (gums) -

- The Salivary Glands: secrete _____ that moistens food, begins the digestive process and cleanses the mouth
    - 3 pairs

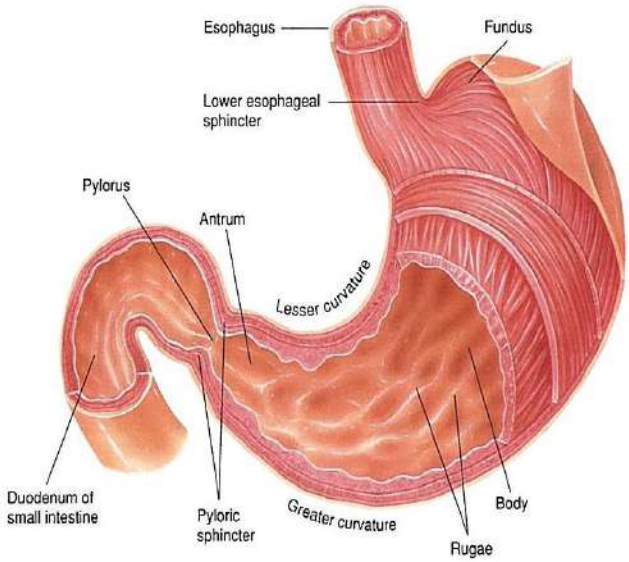
1. Parotid - 2. Sublingual - 3. Submandibular -	

The Pharynx - the throat ● common passageway for both respiration and digestion ○ **Epiglottis:**	
The Esophagus - gullet ● ○ **Lower Esophageal Sphincter** (cardiac sphincter) :	

The Digestive System

The Stomach -

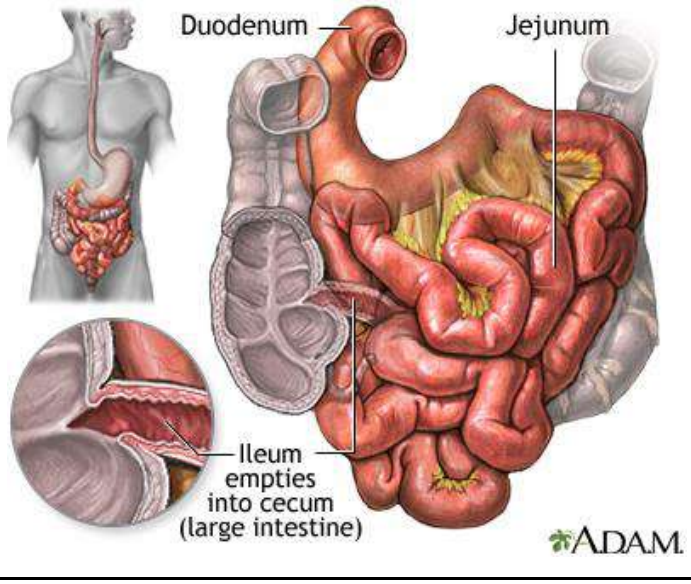
- sac-like organ composed of 3 parts: _____, _____, _____

• **rugae -** folds in mucosa lining the stomach ○	
• **pylorus** –	
• **pyloric sphincter** -	

The Small Intestine -

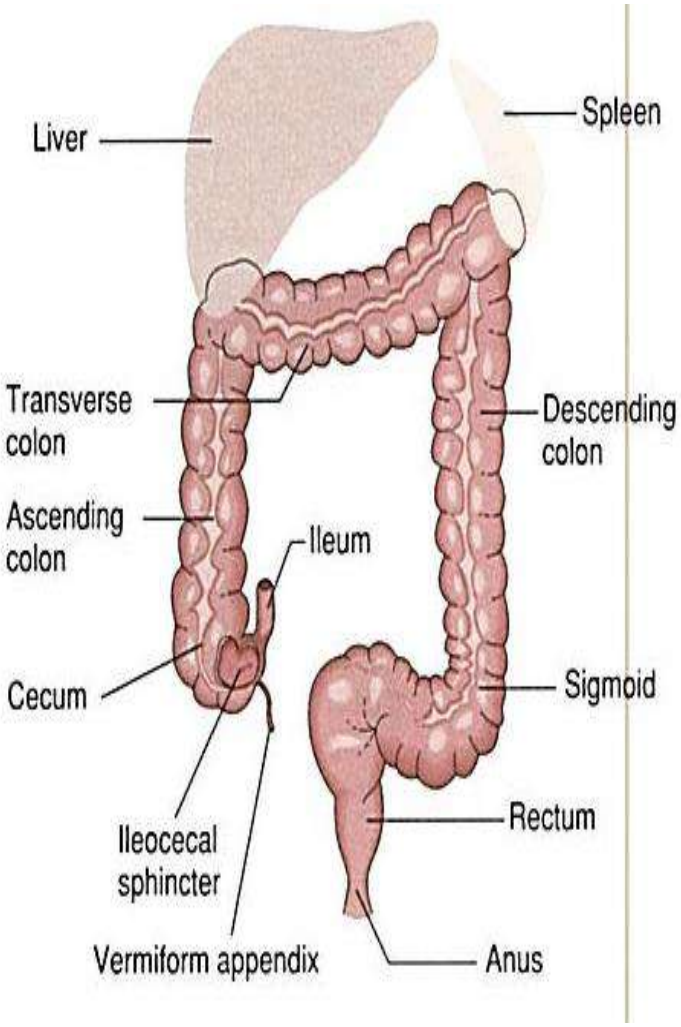
1. extends from the pyloric sphincter to the first part of the large intestine
2. nutrients from food are absorbed into the bloodstream
3. coiled organ up to 20 feet in length
4. named due to diameter

Parts of the Small Intestine:

• Duodenum –	
• Jejunum –	
• Ileum –	
• Ileocecal sphincter –	

The Large Intestine -

1. extends from the small intestine to the anus
2. waste products of digestion are processed and excreted through the anus



<u>The Cecum</u>:

- vermifrom appendix - hangs from the lower portion of the cecum
  -

<u>The Colon</u>:

- 4 parts -
  - ascending colon
  - transverse colon
  - descending colon

sigmoid colon **-** S-shaped structure

<u>The Rectum and Anus</u>:

- rectum -
- anus -
- anal sphincter muscles-

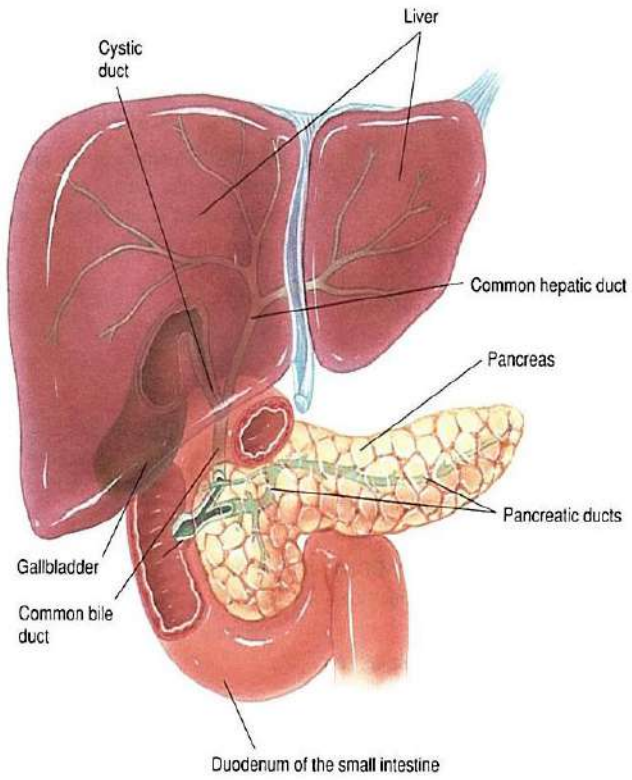
Anorectal -

The Digestive System

Accessory Digestive Organs -

<u>The Liver</u>: (hepatic) located in the right upper quadrant

- Responsible for:
    - **Glucose**
    - **Glycogen**
- Low blood sugar:
- Destroys:
- Removes:
- Manufactures some proteins
- Release:
    - **bilirubin**
- **Bile**:
- **Common Hepatic Duct**:
    - **cystic duct**



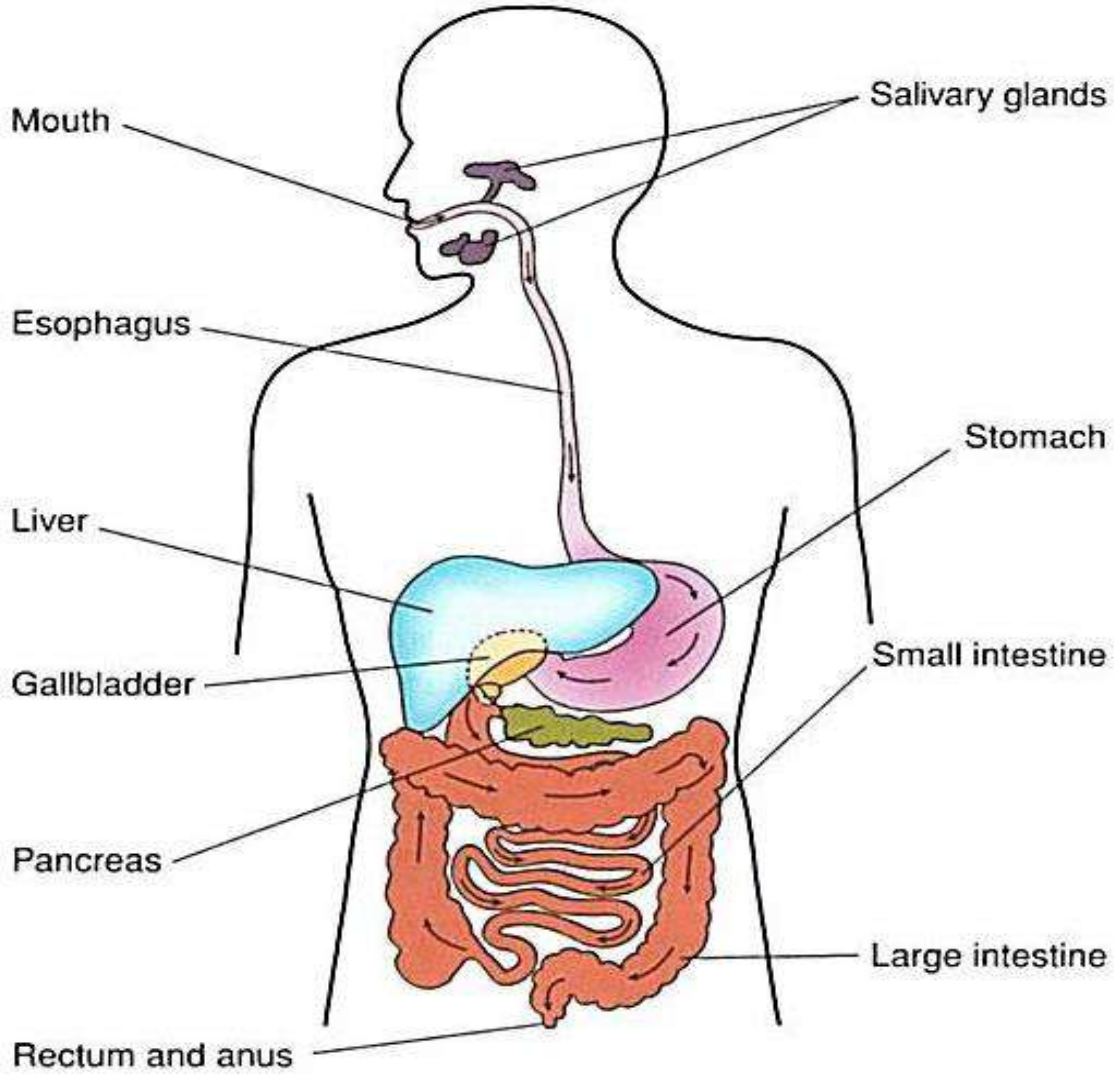
<u>The Gallbladder</u>: (cholecystic) located under the liver

- Stores and concentrates:
- When needed:

<u>The Pancreas</u>: feather-shaped organ located posterior to the stomach

- Synthesizes and secretes:
- Leaves the pancreas:

The Digestive System



Digestion:

Enzymes:

Nutrient:

Metabolism -

• the sum of anabolism and catabolism
• Includes all of the process involved in the body's use of these nutrients
• **Anabolism:**
• **Catabolism:**

The Digestive System

Absorption -

-

- **Villi –**

The Role of the Mouth, Salivary Glands and Esophagus -

- **Mastication** (chewing):
  - Saliva contains an enzyme that begins the chemical breakdown to convert starches into sugars

- Food travels through the pharynx and down into the esophagus

- **Peristalsis:**

The Role of the Stomach -

- **Gastric juices**: _____**hydrochloric acid** _____

- Few nutrients enter the bloodstream through the stomach

- It is responsible for churning the food with the gastric juices and digestive enzymes to convert to _____

- Chyme:

The Digestive System

The Role of the Small Intestines -

- Peristalsis:
- Digestion:
- Bile breaks down fat globules so enzymes in pancreatic juices can digest them_____
- **Emulsification** –

The Role of the Large Intestines -

- Job is to receive and store digestive waste until it can be eliminated
- Also absorbs excess water forming _____
- **Defecation (bowel movement)** –
- **flatulence or flatus -**
- **Borborygmus** -