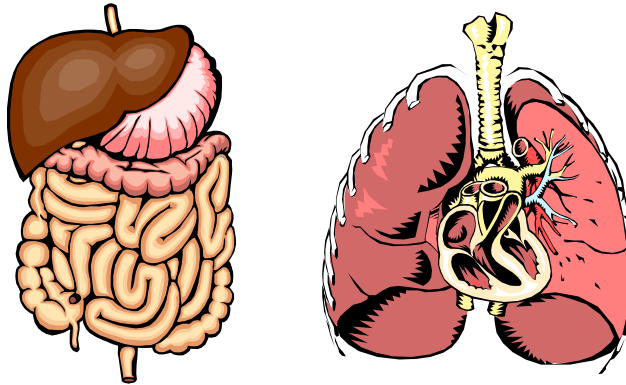
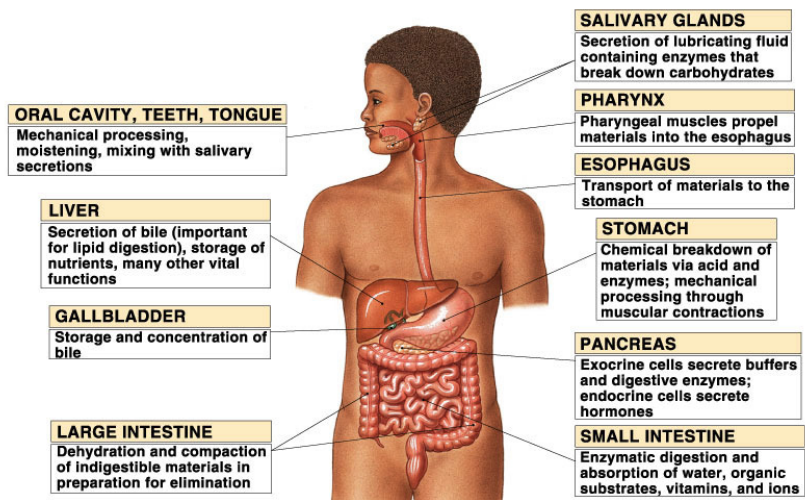


PTA 106

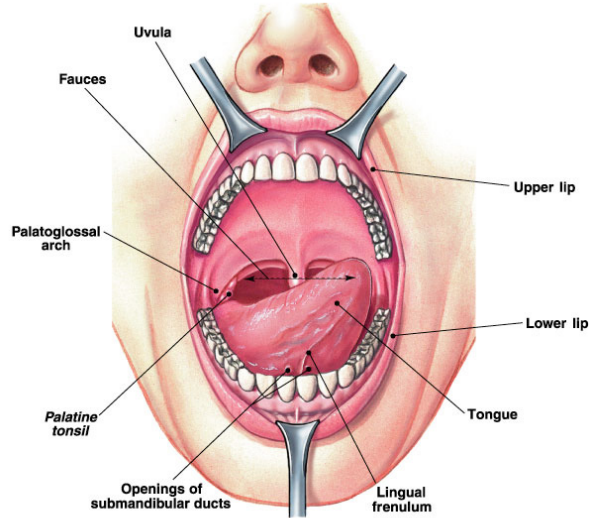
Unit 1 Lecture 4



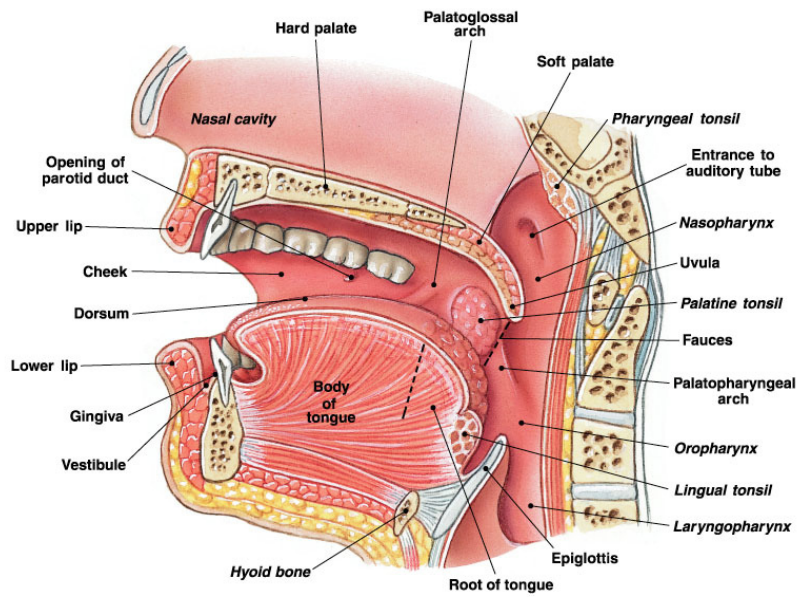
Overview of the Digestive System



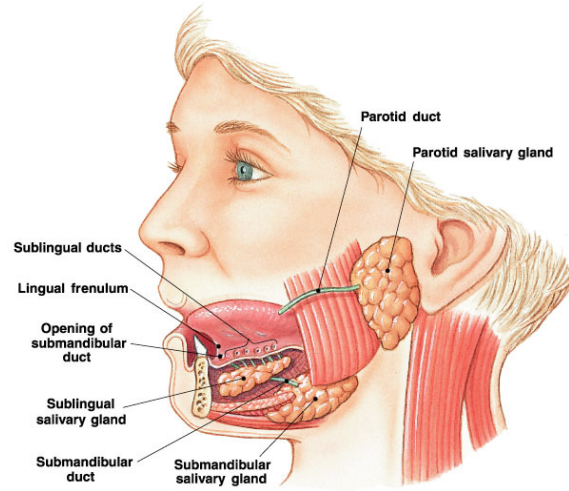
Internal Structures of the mouth



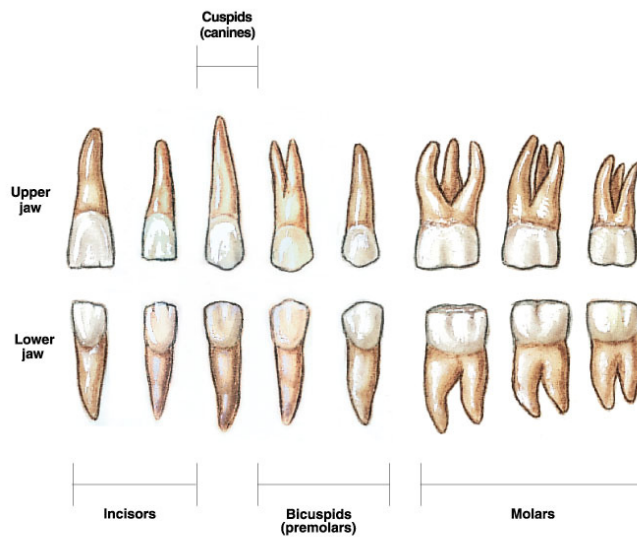
Internal Structures of the mouth



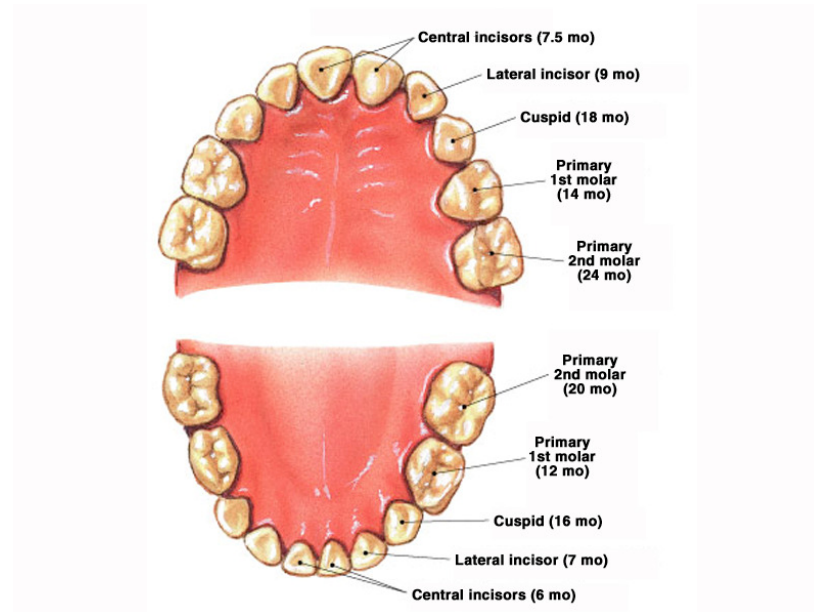
Salivary Glands and their Associated Ducts



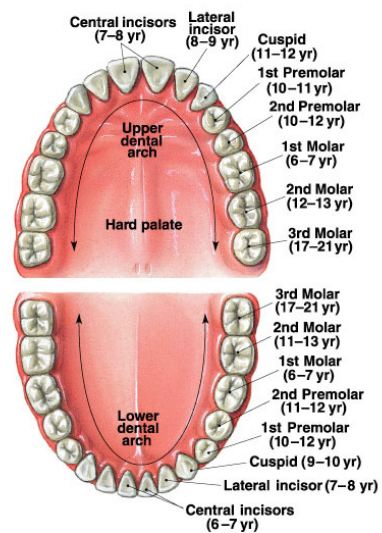
Number and types of Adult Teeth



Location and Types of Deciduous Teeth



Location of Adult Teeth and Age of Eruption



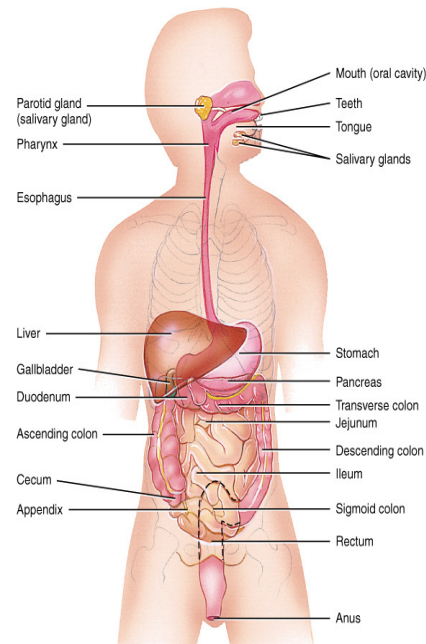
GI Tract Functions

Mouth: Ingestion

Teeth: Mastication

Salivary Glands:

1. **Water: Moistens Food**
2. **Mucus: Lubricates and binds food into bolus**
3. **Amylase: Starts breakdown of Starch and Glycogen**



Right lateral view of head and neck and anterior view of trunk

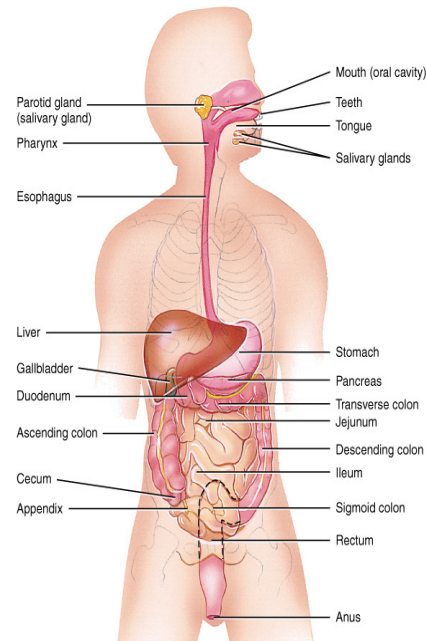
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GI Tract Functions

Mouth continued:

Salivary Glands:

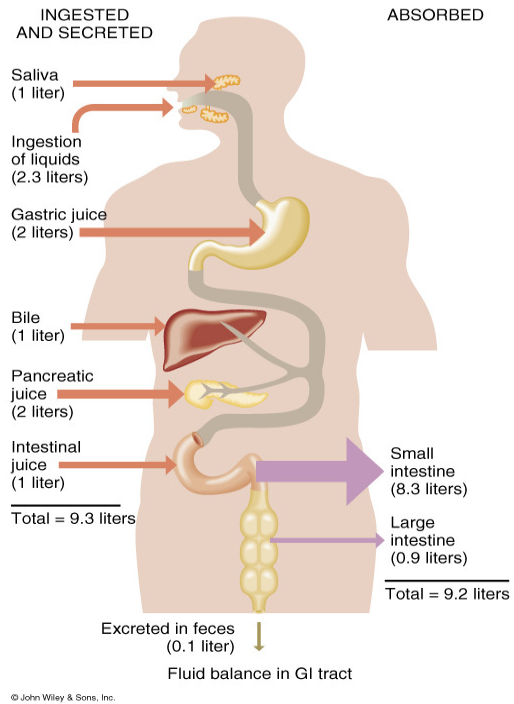
4. **Lingual lipase: Starts breakdown of lipids**
5. **Bicarbonate (HCO_3): Buffering action neutralizes acidic food in the mouth**



Right lateral view of head and neck and anterior view of trunk

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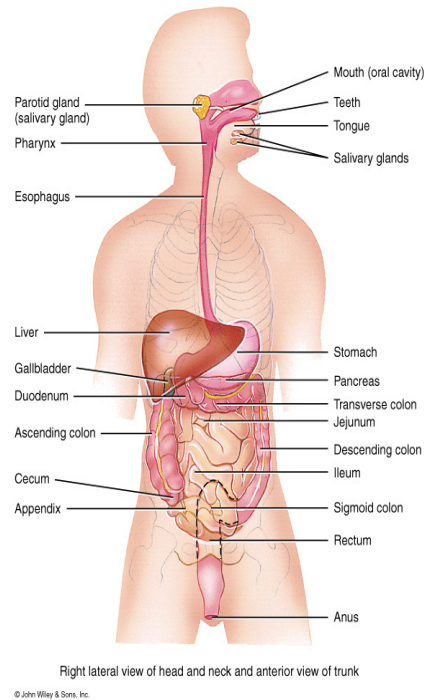
Overview of fluid intake and secretion compared to fluid absorption by the Digestive tract



GI Tract Functions

Pharynx: Both Oropharynx and Laryngopharynx:

Deglutition or Swallowing

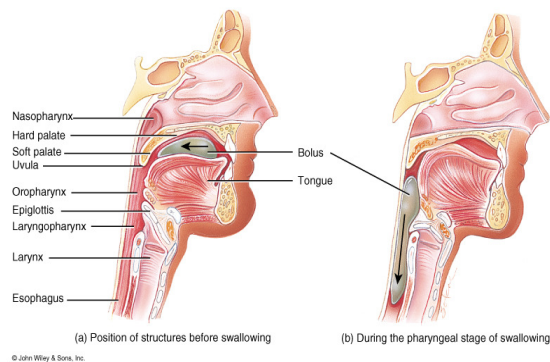


Stages of Deglutition

1. Voluntary Stage:

a. Buccal or Oral activity

formation and movement of the bolus

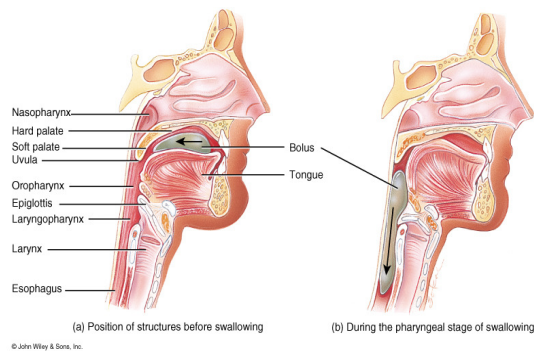


Stages of Deglutition

2. Pharyngeal Stage:

a. Soft-palate is pulled upward closing off the nasopharynx

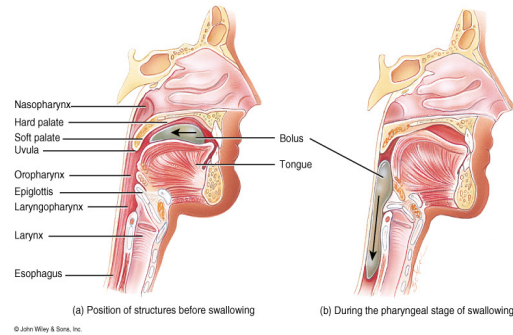
b. Palatoglossal and palatopharyngeal arches are pulled medially forming a sagittal slit with the fauces.



Stages of Deglutition

2. Pharyngeal Stage:

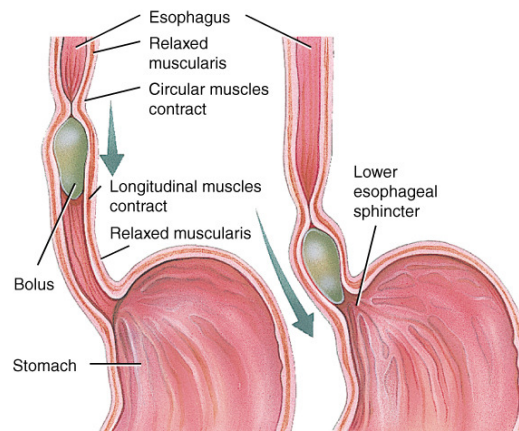
- c. Vocal cords close
- d. Epiglottis swings backward over larynx and larynx is pulled upward to close off the opening of the larynx
- e. Upper esophageal sphincter relaxes to that bolus can enter the esophagus.



Stages of Deglutition

2. Esophageal Stage:

- a. Peristalsis pushes the bolus downward through the esophagus.
- b. Lower esophageal sphincter relaxes and the bolus enters the stomach



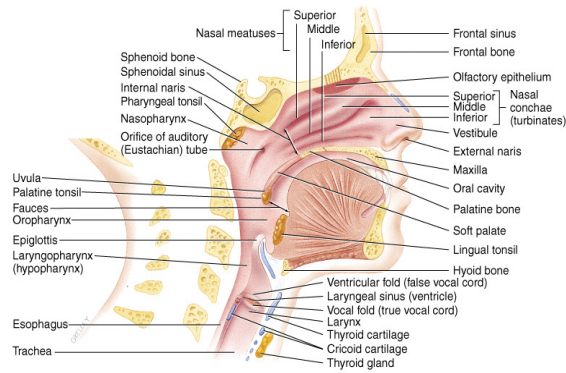
Anterior view of peristalsis in esophagus

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Structural Portions of the Respiratory System

- Upper Respiratory System

Designed to conduct air into and out of the Lower Respiratory System

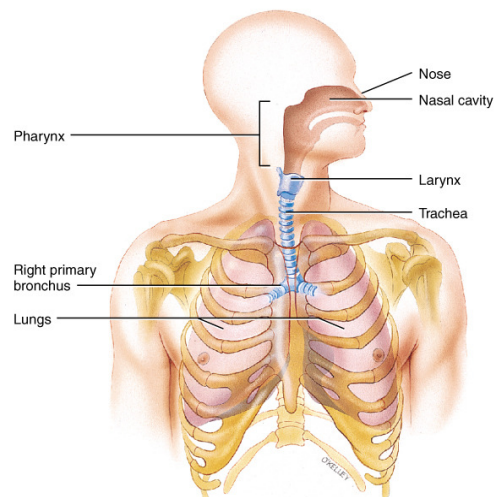


(b) Sagittal section of the left side of the head and neck showing the location of respiratory structures

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Processes of the Respiratory System

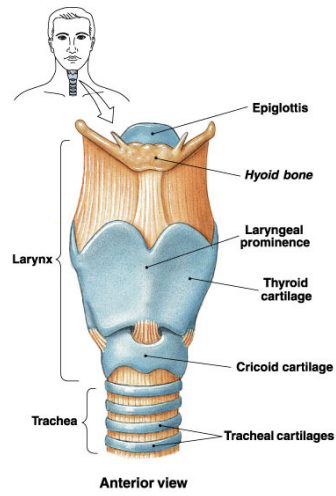
- **Pulmonary ventilation**
mechanical flow of air into and out of the lungs
- **External Respiration**
exchange of gases between the pulmonary air spaces and the blood
- **Internal Respiration**
exchange of gases between blood and tissues



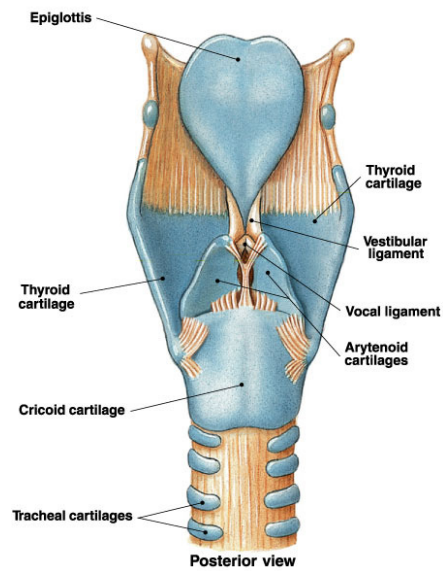
(a) Anterior view showing organs of respiration

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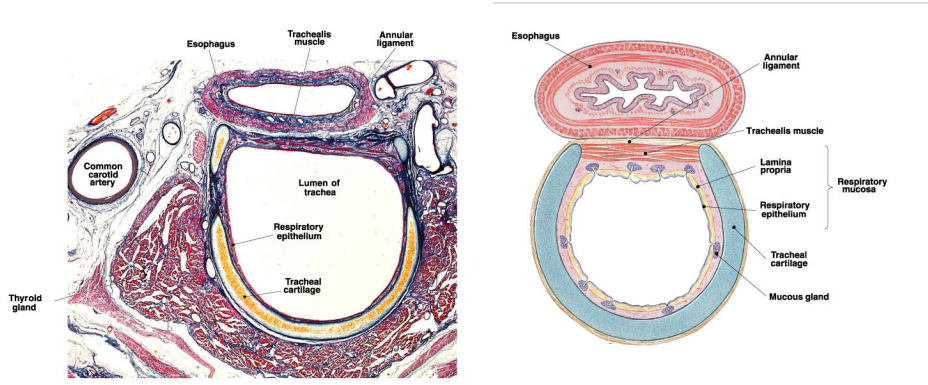
Anterior view of the Larynx



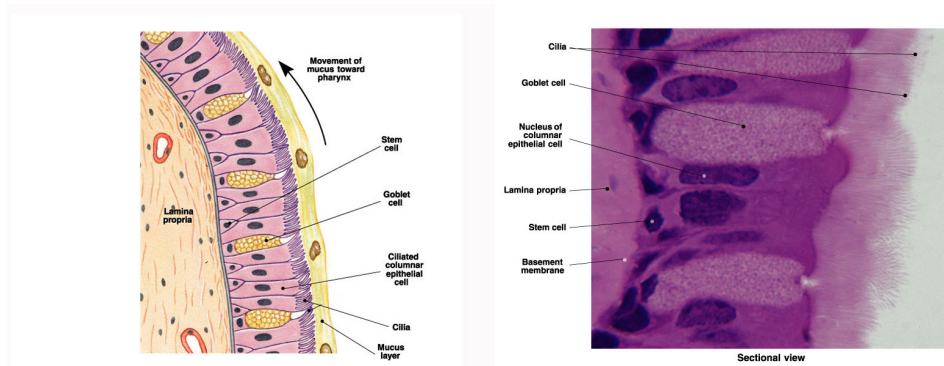
Posterior View of the Larynx



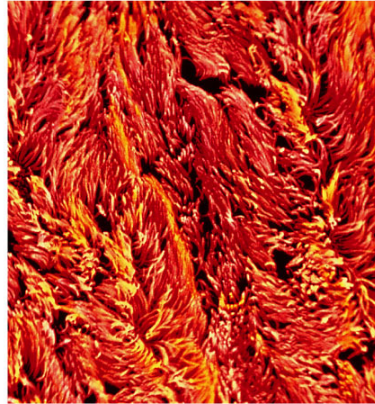
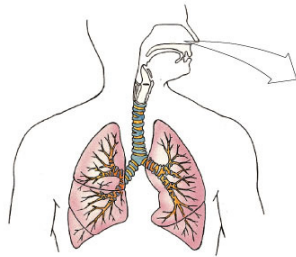
Relationship of the Esophagus and Trachea in the Neck



Pseudostratified Ciliated Columnar Epithelium



**Surface View of the lining of the upper
Respiratory system demonstrating
Pseudostratified ciliated columnar**



Superficial view

**Histology of a Bronchiole showing a
Seromucous gland**

