

DIGESTIVE SYSTEM

THE DIGESTION PROCESS

- It is the process of breaking down food into nutrients that the body can use as energy, growth and cell repair.

- A. **MECHANICAL DIGESTION**- breaks big chunks of food materials into smaller pieces.
- B. **CHEMICAL DIGESTION**- it broken down nutrients such as carbohydrates, protein, fats and vitamins into smaller and simpler molecules to cells throughout the body.

1. Mouth

When food is chewed, saliva starts digesting carbohydrates.

2. Esophagus

Muscles, in a process called peristalsis, push the food down into your stomach.

3. Stomach

Everything is blended with digestive juices. Hydrochloric Acid kills bacteria. Enzymes break down proteins.

4. Liver

A green liquid called bile, which is stored in your liver, is secreted to break down fats.

5. Pancreas

Many kinds of digestive enzymes are made here.

6. Small Intestine

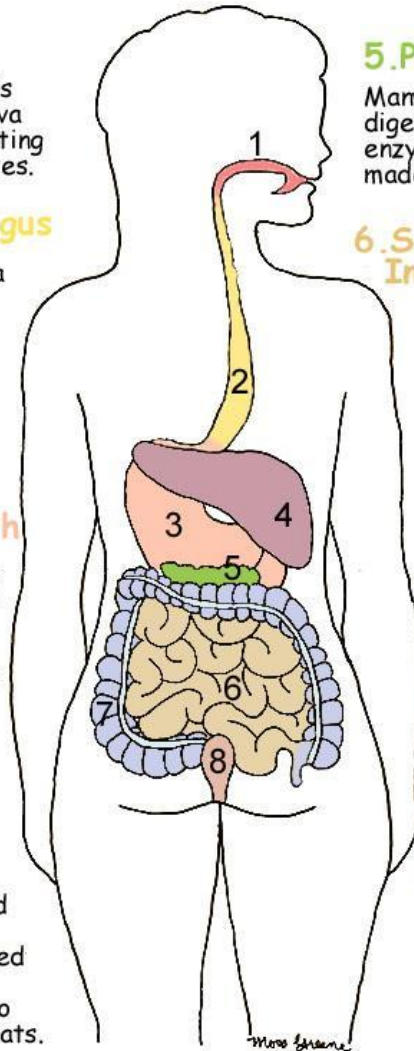
Food is mixed with bile from your liver and juices from your pancreas to be sent back to your liver for more processing.

7. Large Intestine

Indigestible food and water are processed, stored and dispersed.

8. Anus

Solid waste passes from the rectum in order to leave your body.



BOLUS- food chewed in fine paste.

PERISTALSIS - involuntary movements of the longitudinal and circular muscles, primarily in the digestive tract

BILE- is a dark green to yellowish brown fluid, produced by the liver of most vertebrates, that aids the digestion of lipids in the small intestine.

CHYME- the pulpy acidic fluid that passes from the stomach to the small intestine, consisting of gastric juices and partly digested food.

VILLI- are small, finger-like structures in the small intestine.

DUODENUM-It receives partially digested food (known as chyme) from the stomach and plays a vital role in the chemical digestion of chyme in preparation for absorption in the small intestine.

JEJUNUM- absorb nutrients from digested food

ILEUM- absorb vitamin B12 and bile salts and whatever products of digestion were not absorbed by the jejunum.

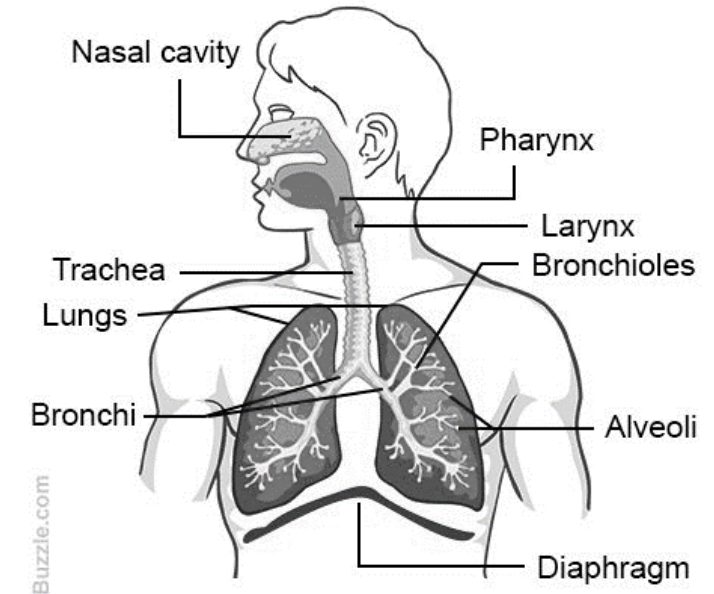
RESPIRATORY SYSTEM- The main function of respiratory system is to allow gas exchange (oxygen and carbon dioxide) with different parts of the body.

PARTS OF THE RESPIRATORY SYSTEM

1. **NOSE**- It is a respiratory organ through which air is inhaled and exhaled.
2. **PHARYNX**- is a tubular part of the respiratory system which allows the passage of air into lungs.
3. **EPIGLOTTIS**- It is a flap-like structure (epiglottis) which prevents food or water from entering the trachea at the time of swallowing.
4. **LARYNX**- It is a part of the respiratory system which connects the trachea with laryngopharynx.
5. **TRACHEA**- The trachea, also known as windpipe, extends from larynx to bronchi.
6. **BRONCHI**- Bronchus (singular of bronchi) is a passage which allows the flow of air into lungs.
7. **LUNGS**- They carry out the work of supplying the body with oxygen and removing carbon dioxide.
8. **ALVEOLI**- The alveoli are sac-shaped bodies present inside the lungs, at the tip of alveolar ducts. The alveoli function

like an interface for the exchange of oxygen and carbon dioxide between lungs and capillaries.

9. **DIAPHRAGM**- as the diaphragm contracts, the volume of the thoracic cavity increases and air is drawn into the lungs.



Inhalation Process

