

## **DIGESTIVE SYSTEM**

**Digestive system** is a Complex process in human body. The digestive tract starts at the mouth and ends at the anus. It is the breakdown of large insoluble food molecules which we eat. In the system the large insoluble food molecules breakdown into a small water soluble food molecules.

### **The digestive system consists of**

1. Alimentary canal
2. Associated organs (tongue, teeth, salivary glands, pancreas, liver, and gallbladder).

### **Major functions of the digestive system include:**

1. Transport of ingested water and food
2. Secretion of fluids, electrolytes, and digestive enzymes
3. Digestion and absorption of digested products
4. Excretion of indigestible remains
  - ✓ Most of these fluids and nutrients are absorbed chiefly through the wall of the small intestine, but a small portion is absorbed in the large intestine.
  - ✓ Undigested food and other substances within the alimentary canal, such as mucus, bacteria, desquamated cells, and bile pigments are excreted as solids (feces).
  - ✓ The alimentary mucosa performs numerous functions in its role as an interface between the body and the environment. These functions

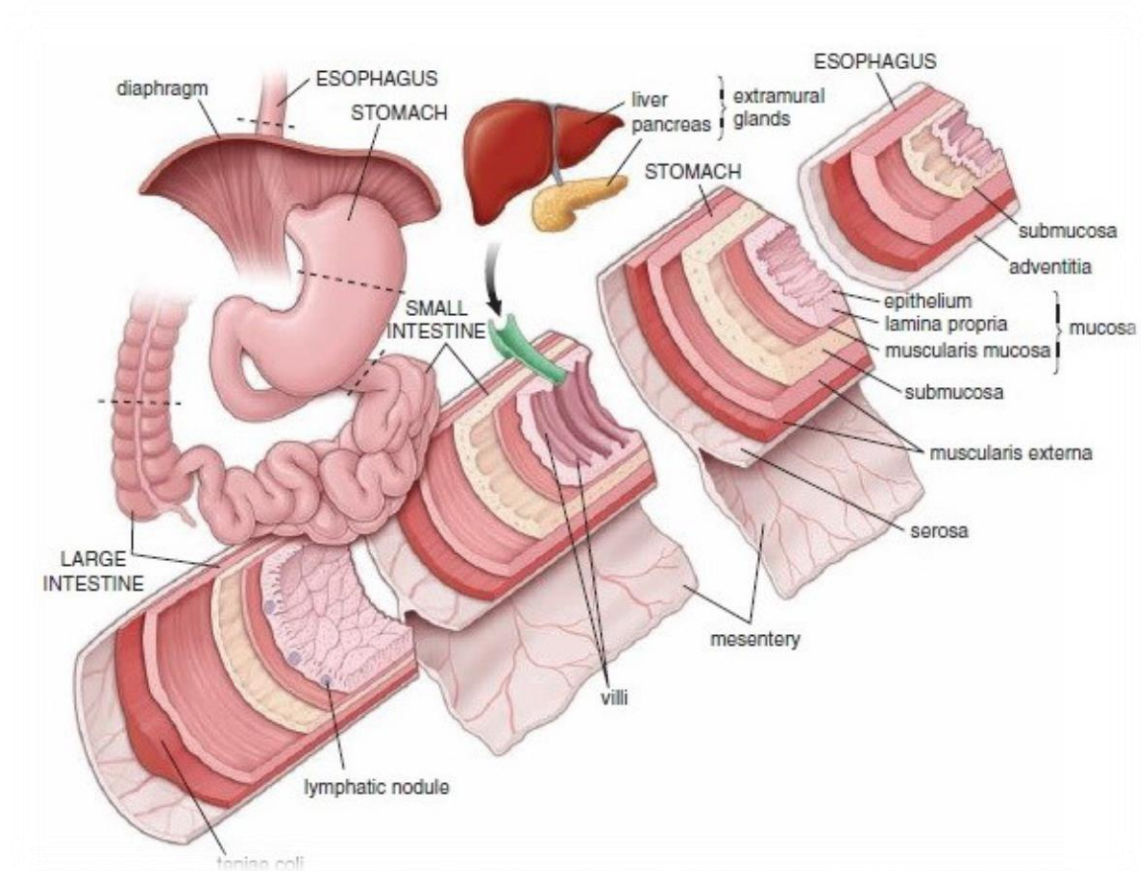
include the following:

1. Secretion

2. Absorption

3. Barrier

4. Immunologic protection



**The alimentary canal wall is formed by four distinctive layers.**

**From the lumen outward:**

• **Mucosa**

• **Submucosa**

• **Muscularis externa**

## • Serosa and Adventitia

### ESOPHAGUS

The esophagus is a fixed muscular tube that delivers food and liquid from the pharynx to the stomach. The overall length of the esophagus is about 25 cm.

### STOMACH

The **stomach** is an expanded part of the digestive tube that lies beneath the diaphragm.

The stomach is divided **histologically** into **three regions** based on the **type of gland** that each contains.

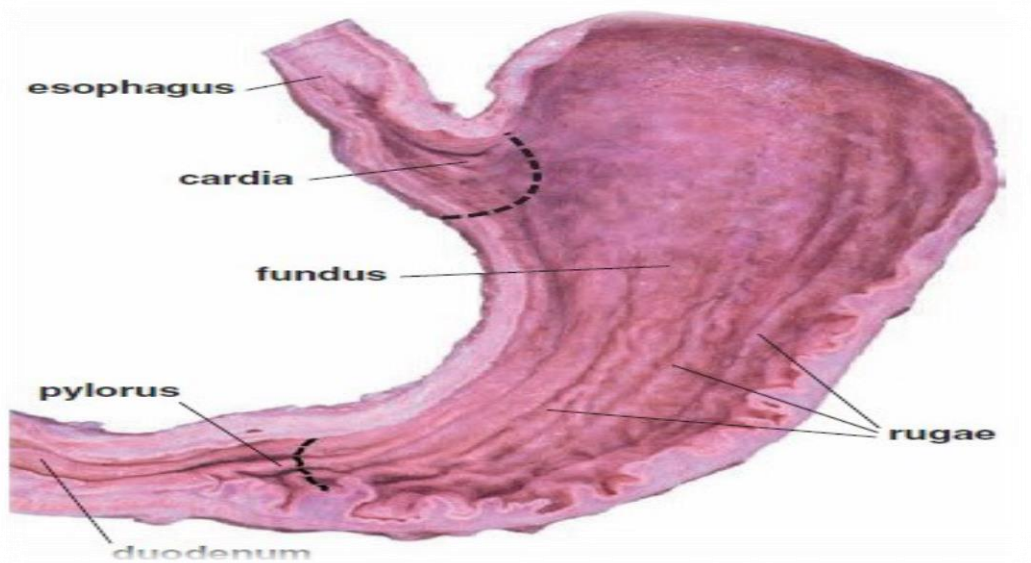
**Stomach** divided into four regions.

**1. cardia**

**2. fundus**

**3. body**

**4. pyloric**



## SMALL INTESTINE

The small intestine is the **longest** component of the digestive tract, measuring over 6 m, and is divided into **three anatomic** portions:

- Duodenum
- Jejunum
- Ileum

## LARGE INTESTINE

The large intestine consists of

1. **Cecum** with its projecting Vermiform Appendix
2. **Colon** (ascending colon, transverse colon, descending colon, and sigmoid colon)
3. **Rectum**
4. **Anal canal.**