



SNS COLLEGE OF NURSING SARAVANAMPATTI ,COIMBATORE.

**DEPARTMENT OF NURSING1
COURSE NAME : BSC (NURSING) I YEAR
SUBJECT : ANATOMY AND PHYSIOLOGY
UNIT III : DIGESTIVE SYSTEM
TOPIC : UPPER GI ORGANS**

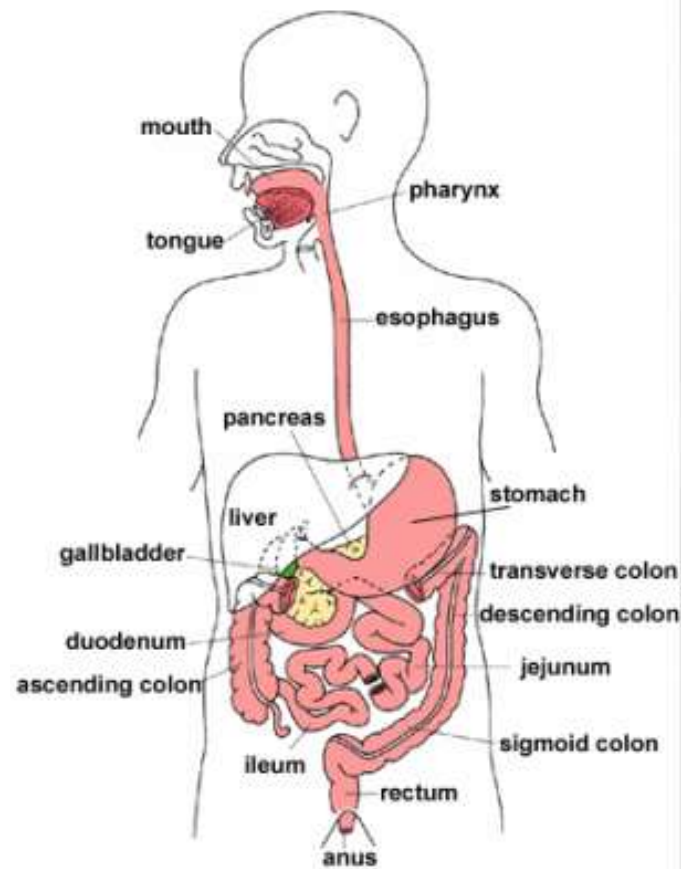


INTRODUCTION

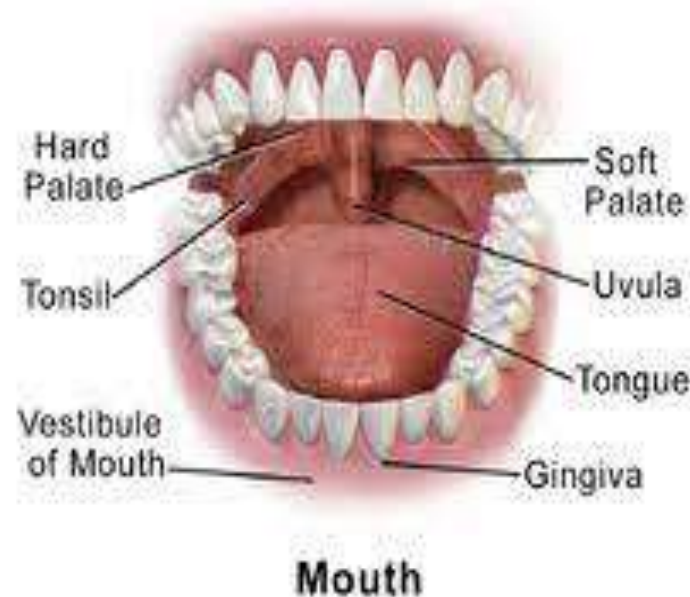


- The organs of the digestive system can be separated into two main groups.
- The alimentary canal, also called the gastrointestinal tract, is a continuous, hollow muscular tube that winds through the ventral body cavity and is open at both ends

GASTROINTESTINAL ORGANS



MOUTH



- Food enters the digestive tract through the **mouth**, or oral cavity, a mucous membrane-lined cavity.



MOUTH



- **Lips.** The lips (labia) protect its anterior opening.
- **Cheeks.** The cheeks form its lateral walls.
- **Palate.** The **hard palate** forms its anterior roof, and the **soft palate** forms its posterior roof.
- **Uvula.** The uvula is a fleshy finger-like projections of the soft palate
- **Vestibule.** The space between the lips and the cheeks externally and the teeth and gums internally is the vestibule.



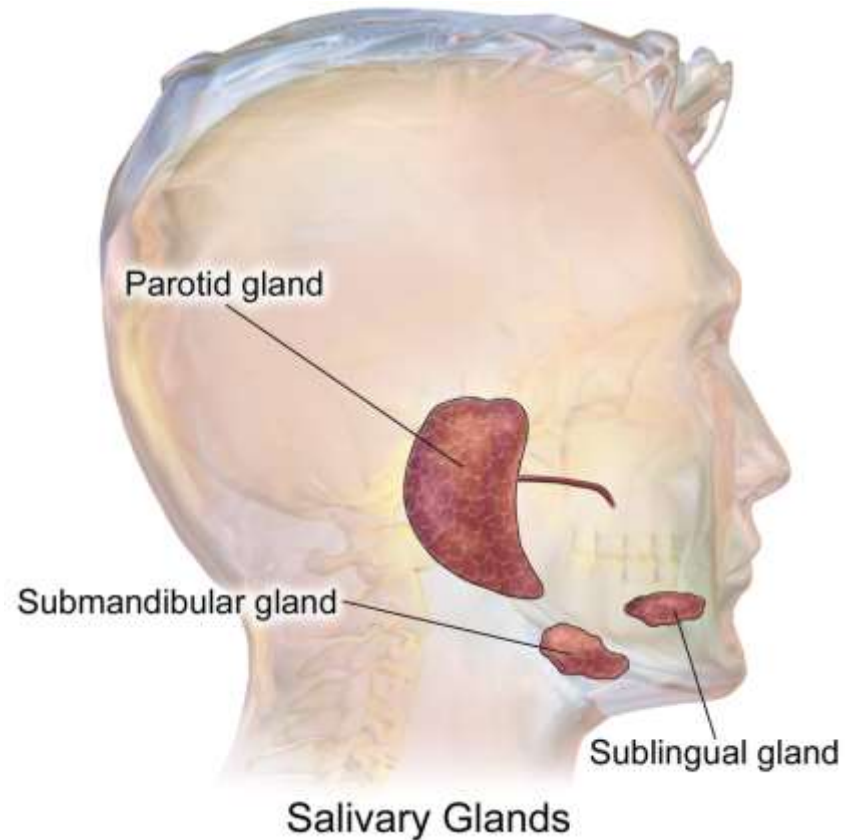
MOUTH



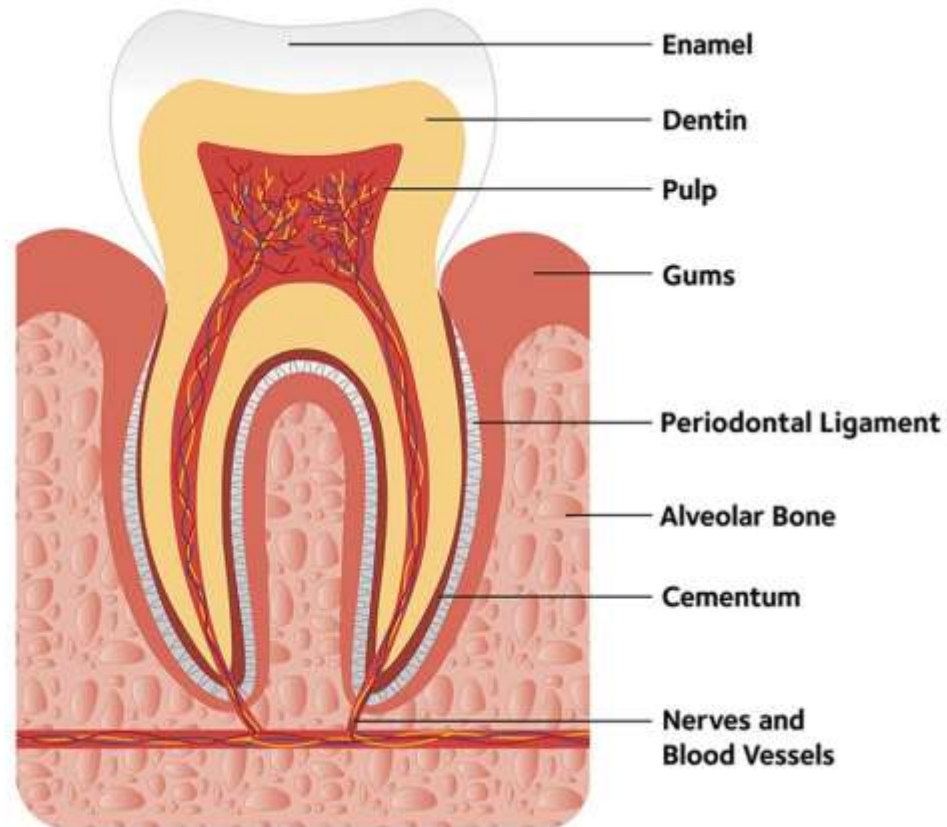
- **Tongue.** The muscular tongue occupies the floor of the mouth
- **Lingual frenulum.** The lingual frenulum, a fold of mucous membrane .
- **Palatine tonsils.** At the posterior end ,paired masses of lymphatic tissue, the palatine tonsils.
- **Lingual tonsil.** The lingual tonsils cover the base of the tongue just beyond.

SALIVARY GLANDS

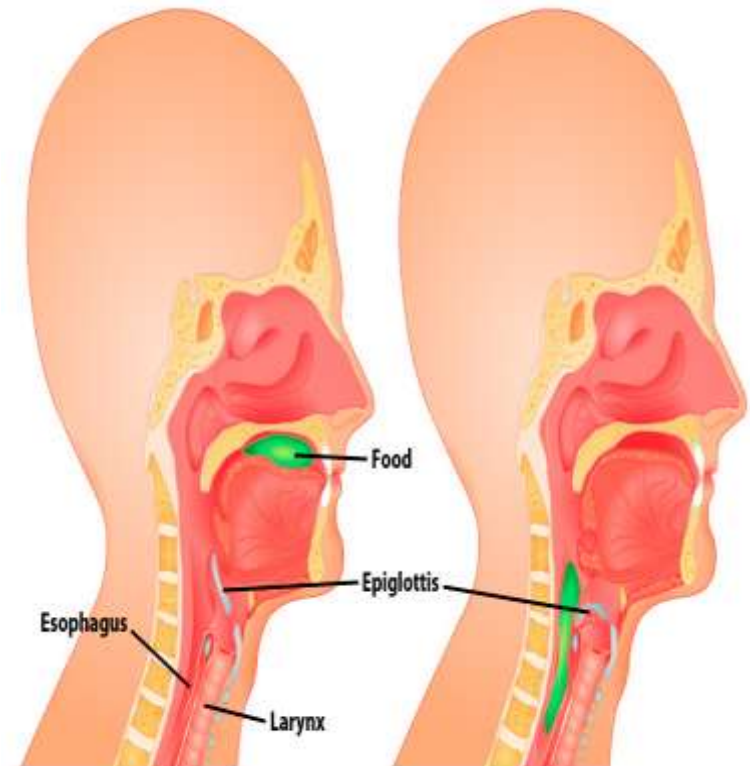
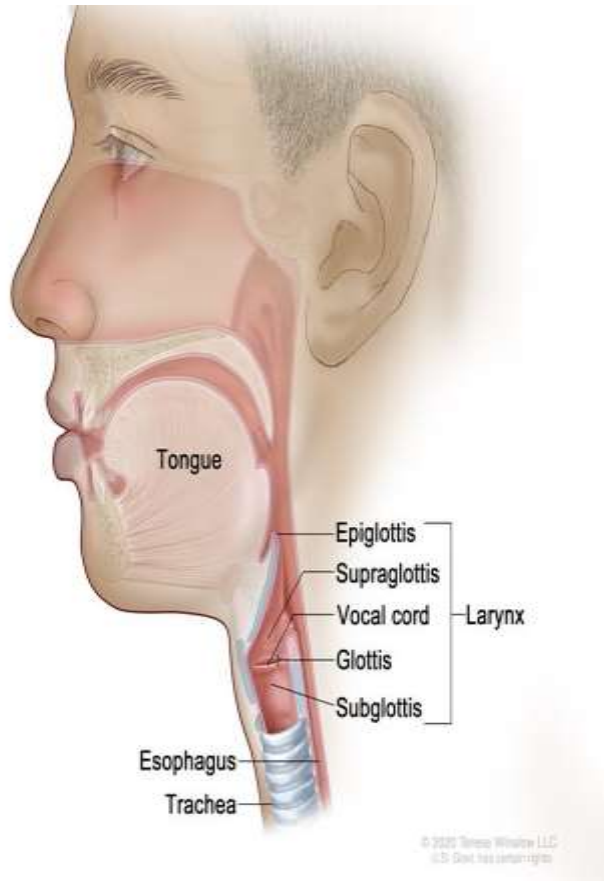
- There are three pairs of main salivary glands and between 800 and 1,000 minor salivary glands.
- **Lingual tonsil.** The lingual tonsils cover the base of the tongue just beyond.



TEETH



EPIGLOTTIS





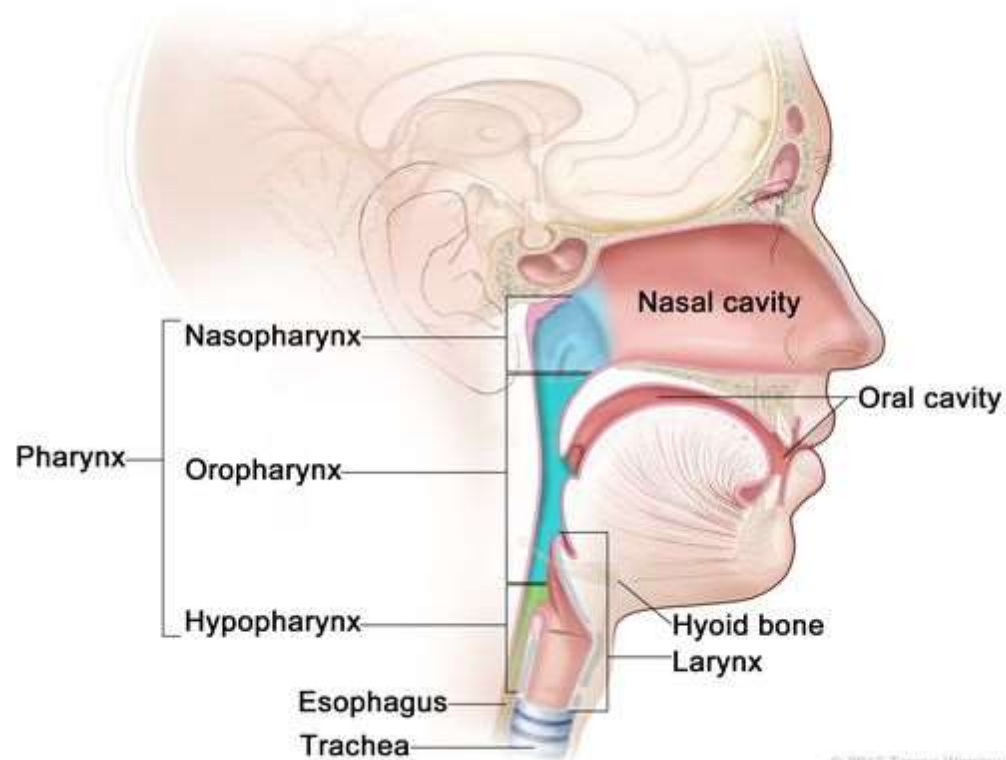
PHARYNX



- The food passes posteriorly into the oropharynx and laryngopharynx.
- **Oropharynx** . The oropharynx is posterior to the oral cavity.
- **Laryngopharynx**. The laryngopharynx is continuous with the esophagus below; both of which are common passageways for food, fluids, and air.

PHARYNX

Anatomy of the Pharynx



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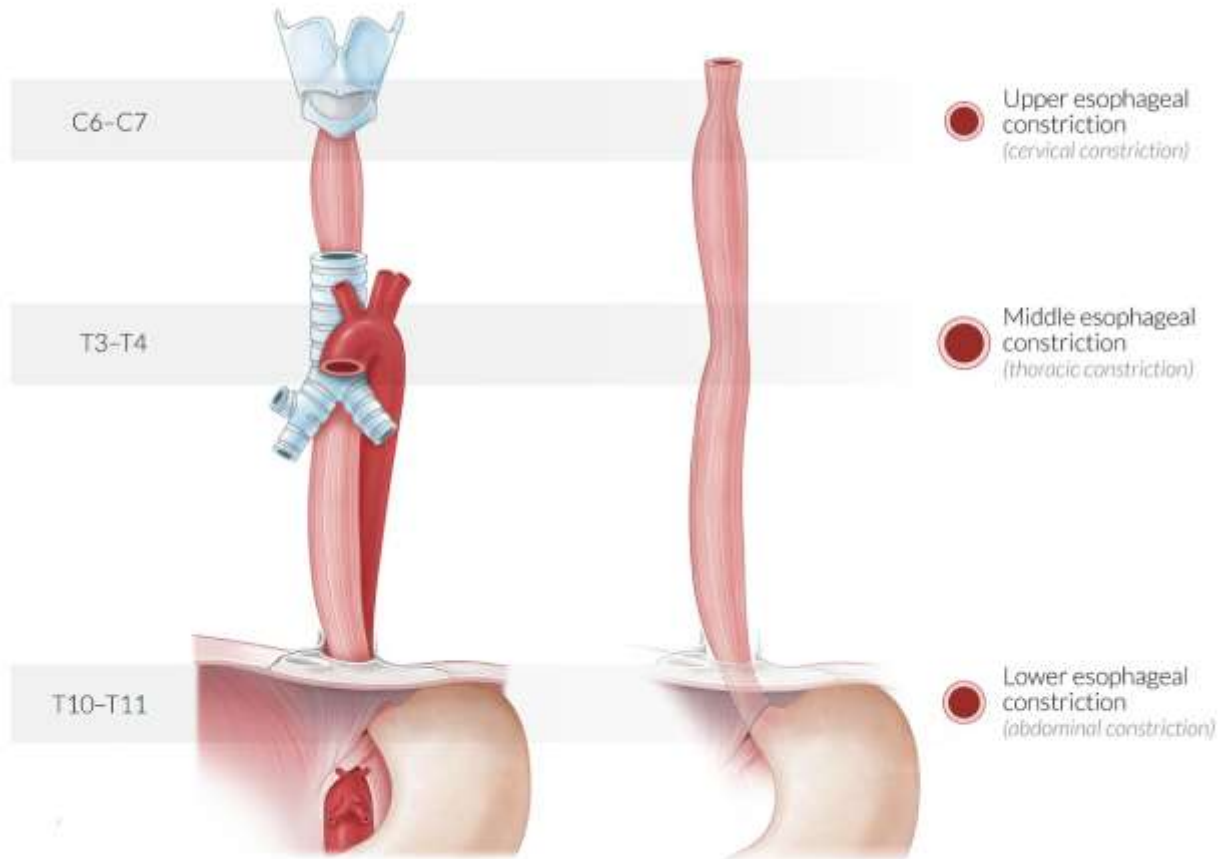


ESOPHAGUS



- The esophagus or **gullet**, runs from the pharynx through the diaphragm to the stomach.
- **Size and function.**
- About **25 cm** (10 inches) long, it is essentially a passageway that conducts food by peristalsis to the stomach.
- **Structure.**
- The walls are made up of the same four basic tissue layers or tunics.

ESOPHAGUS





STOMACH



- **Location.** The C-shaped stomach is on the left side of the abdominal cavity, nearly hidden by the liver and the diaphragm.
- **Function.** The stomach acts as a temporary “storage tank” for food as well as a site for food breakdown.
- **Cardiac region** -- surrounds the **cardio esophageal sphincter**, through which food enters the stomach from the esophagus.

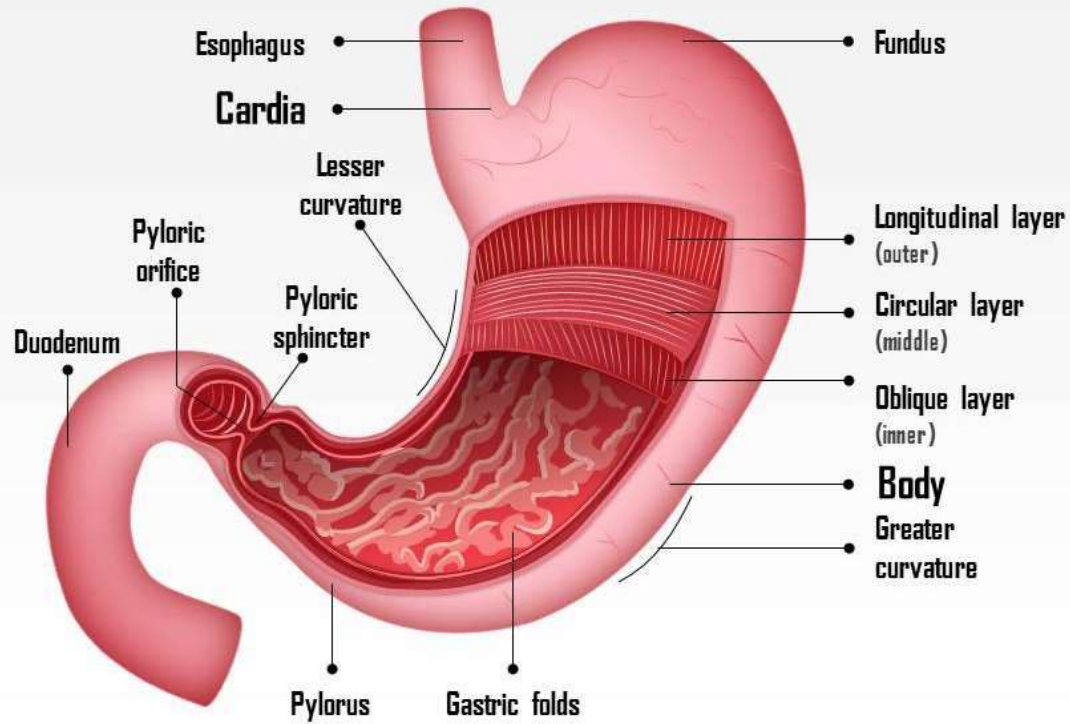


STOMACH



- **Fundus.** The fundus is the expanded part of the stomach lateral to the cardiac region.
- **Body.** The body is the midportion, and as it narrows inferiorly, it becomes the **pyloric antrum**, and then the funnel-shaped pylorus.
- **Pylorus.** The pylorus is the terminal part of the stomach and it is continuous with the small intestine through the **pyloric sphincter or valve**.

STOMACH





STOMACH



- **Size.** The stomach varies from
- **15 to 25 cm in length,**
- When it is full, it can hold about **4 liters** (1 gallon) of food,
- But when it is empty it collapses inward on itself.
- **Rugae.** The mucosa of the stomach is thrown into large folds called rugae when it is empty.



STOMACH



- **Greater curvature**
 - The convex lateral surface of the stomach is the greater curvature.
- **Lesser curvature**
 - The concave medial surface is the lesser curvature.



STOMACH



- **Lesser omentum**
- The lesser omentum, a double layer of peritoneum, extends from the liver to the greater curvature.
- **Greater omentum**
- The greater omentum, helps to insulate, cushion, and protect the abdominal organs.



STOMACH

- **Stomach mucosa.**
- The mucosa of the stomach is a simple columnar epithelium
- **Gastric glands.** - smooth lining is dotted with millions of deep **gastric pits**, which lead into **gastric glands** that secrete the solution called **gastric juice**.



STOMACH



- **Intrinsic factor.**

- An intrinsic factor, a substance needed for the absorption of vitamin b12 from the small intestine.

- **Chief cells.**

- The chief cells produce protein-digesting enzymes, mostly **pepsinogens**.



STOMACH



- **Parietal cells.** The parietal cells produce corrosive **hydrochloric acid**
- **Entero endocrine cells.** The enteroendocrine cells produce local hormones such as **gastrin**
- **Chyme.** After food has been processed, it resembles heavy cream and is called chyme



CONCLUSION



- The **gastrointestinal tract (GI tract, digestive tract, alimentary canal)** is the tract or passageway of the digestive system that leads from the mouth to the anus.
- The GI tract contains all the major organs of the digestive system, in humans and other animals, including the esophagus, stomach, and intestines.

