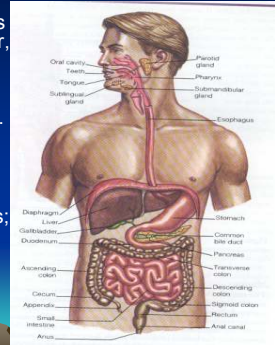


Digestive System

Overview of the Digestive System

- The digestive system consists of the alimentary canal proper, a tube extending from the mouth to the anus; and accessory structures such as the teeth, tongue, and glands.
- The walls of the alimentary canal has a common structural plan which is from within outward: (1) mucosa; (2) submucosa; (3) muscularis; and (4) either serosa, covering almost all the canal below the diaphragm, or adventitia, forming the external coat of the esophagus and part of the rectum



Oral cavity

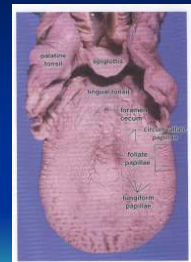
- Consists of vestibule (space between lips, cheeks and teeth) and oral cavity proper which lies behind the teeth and bounded by hard and soft palate and the tongue.

Lining of the Mouth (oral) Cavity.

- keratinized stratified squamous epithelium. with areolar tissue in lamina.
- Glands.** small branched structures present almost everywhere in the mouth except the gum and the hard palate. They contribute to the formation of salivar. These are mucous, serous and mixed glands.

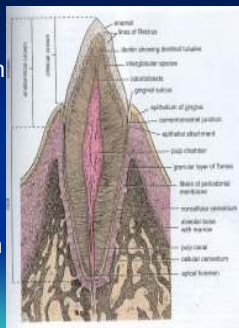
Tongue

- Mobile and muscular organ.
- Composed of interlacing muscle covered by thick keratinized stratified epithelium in the upper surface.
- Has various parts as shown in the diagram.
- Taste buds communicate with nerve fibers.
- Lingual tonsils are present in the epithelium of the root of the tongue



Teeth

- A tooth consists of a crown covered by enamel and a root or roots implanted within the socket.
- It is composed of enamel, dentin which are calcified tissue.
- A vascular connective tissue component called the pulp in the pulp cavity which extends throughout the root and into the crown.



Pharynx

- Pharynx or throat is the pathway for both food and air.
- It is divided into three parts:
 - Nasopharynx
 - Oropharynx &
 - Laryngopharynx
- Oropharynx and Laryngopharynx, contain an inner mucosa composed of stratified squamous epithelium and fibroelastic connective tissue lamina propria.
- Present are mucous glands, lymphoids tissue and skeletal muscles.

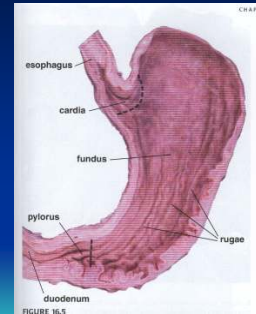
Esophagus

- Is a tube about 15 cm long which connects the pharynx to the stomach.
- Usually in a characteristically collapsed condition and exhibit flattened or stellate lumen.
- The outer coat, tunica consists of loose fibroelas

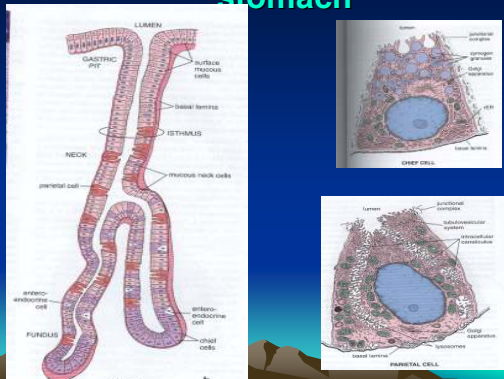


Stomach

- Dilated part of the digestive tube.
- Different parts are shown in the diagram.
- The surface of the entire gastric mucosa is simple tall columnar epithelium forming glands that secrete mucus.
- Lining dips down to form gastric pits or foveolae.
- Parietal cells of these glands secrete hydrochloric acid while the chief cells secrete the gastric juice enzyme, pepsin.



Histologic Consideration of the stomach

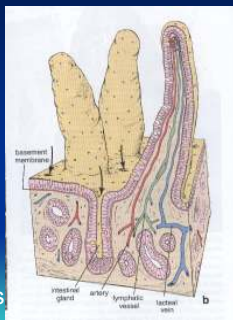


Small Intestine

- Small intestine is an extensively long coiled tube about 20 feet long.
- It is divided into , the duodenum (about 10 inches), jejunum (about 8 feet long) and ileum (about 12 feet)
- It is adapted for increase in surface area for absorption by
 - forming circular folds
 - mucosa arranged into fingerlike elevations called villi, and
 - simple tall columnar epithelium lining the intestine have tiny projecting microvilli.

Intestinal Villi

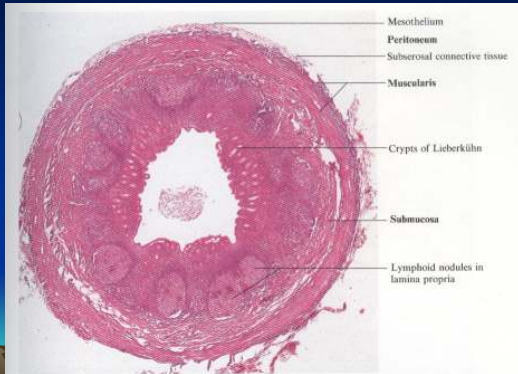
- Varies in height and shape in different segments of the intestine.
- Each villus consists of central core of connective tissue lamina propria covered by a single layer of columnar epithelium containing many goblet cells.
- Each villus is vascularised.
- The specialization of the villus is for the adaptation of its digestive and absorptive



Large Intestine

- A tube about 5 feet long.
- Extend from ileocecal valve at the junction of the ileum and the cecum to the anus.
- Consists of cecum, ascending, transverse, and descending colon; a sigmoid section of the colon; the rectum, and the anus.
- Surface epithelium is similar to that of small intestine.
- Appendix, is characterized by large

C.S. of large Intestine



Histopathology: Tumors of the Gastrointestinal Tract

Adenocarcinoma of the stomach

Adenocarcinoma of the Intestine