

Digestive System Lab

Dr. J. Lim

Histology of the Alimentary Canal

Examine the histological structure of the alimentary canal wall by viewing:

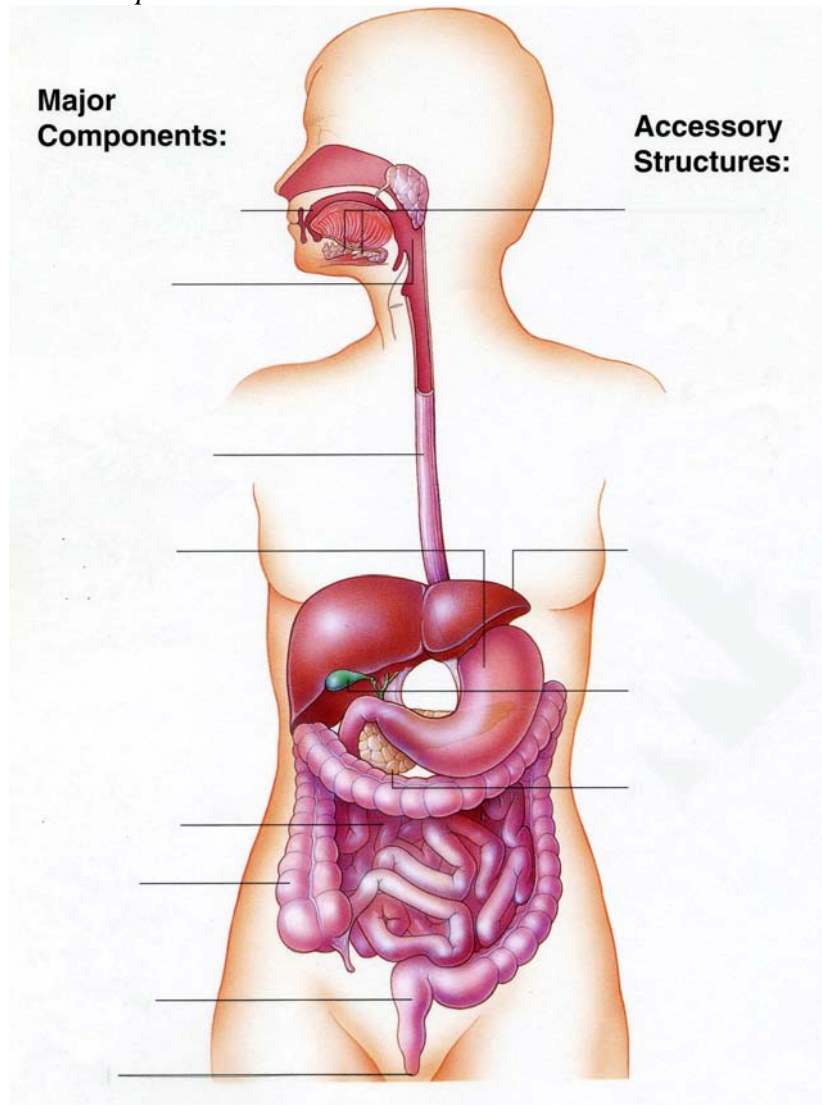
- Viewmaster Set 67 The Digestive System and your notes/textbook
 - Drawing optional

Describe the structural and functional highlights of each tunic in the wall of gastrointestinal tract.

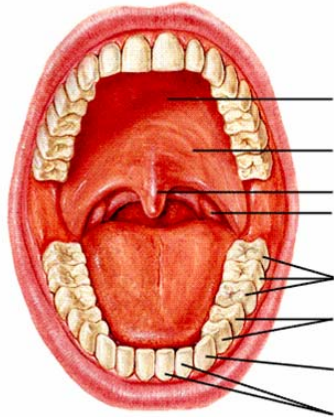
- mucosa
- submucosa
- muscularis
- serosa

Structures of the GI tract

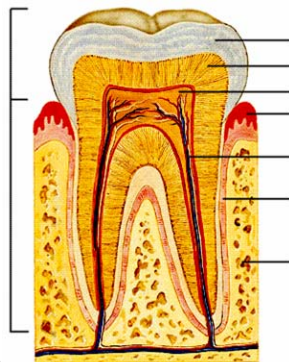
Label the picture below:



Attempt to locate the structures listed below on the torso models, label the pictures, and then describe their respective digestive roles.



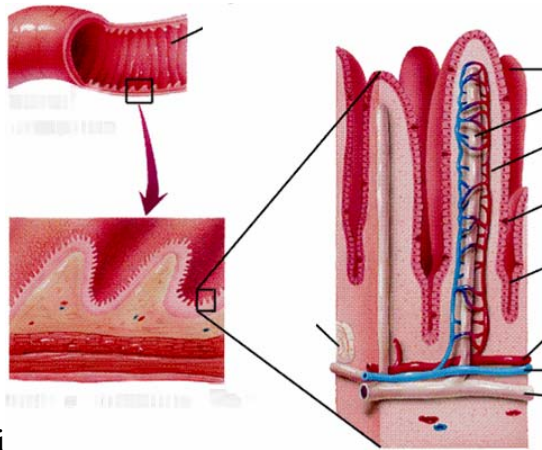
- mouth
 - tongue
 - uvula
 - tonsils
 - hard palate
 - soft palate
 - salivary glands



- teeth
 - incisors
 - canine
 - premolars
 - molars
 - enamel
 - dentin
 - pulp

- pharynx
- esophagus (gullet)
- stomach
 - cardiac sphincter
 - fundus
 - body
 - pylorus
 - pyloric sphincter
 - gastric pits

- small intestine
 - duodenum
 - jejunum
 - ileum
 - pancreas
 - liver
 - gall bladder
 - circular folds
 - villi



- microvilli
- large intestine
 - cecum
 - appendix
 - colon
 - rectum
 - anus

Observing the Movements of Digestion

Obtain a paper cup and some drinking water and make the following observations:
 While swallowing a mouthful of water, consciously notice the movements of your tongue. Record your observations.

Repeat the swallowing process while your laboratory partner watches movements of your larynx that are visible externally. Record your observations. What do these movements accomplish?

Name That Structure

Choose the GI structure from the following list that the phrase describes:

Alimentary canal, duodenum, esophagus, LI, mouth, pharynx, SI, stomach

1. has three layers of smooth muscle _____
2. receives secretions from the salivary glands _____
3. has regions called the cecum, colon, rectum and anal canal _____
4. composed of the duodenum, jejunum and ileum _____
5. receives bile, pancreatic secretions and food from the stomach _____
6. a continuous muscular tube running from the mouth to the anus _____
7. carries food from the pharynx to the stomach _____

Matching Questions

Choose the one most appropriate answer for each. Use each answer no more than one time.

1. ____ amylase
2. ____ bile
3. ____ lipase
4. ____ pepsin
5. ____ trypsin
 - a. made in the pancreas; acts on fats
 - b. made by the pancreas and salivary glands; acts on starch
 - c. made by the pancreas; acts on proteins and polypeptides
 - d. contains cholesterol; helps emulsify fats
 - e. made in the stomach; acts on proteins
6. ____ sphincter
7. ____ monosaccharides
8. ____ mucosa
9. ____ pylorus
10. ____ submucosa
 - a. glucose, fructose, and galactose
 - b. layer containing blood vessels
 - c. separates the stomach from the small intestine
 - d. innermost lining of the digestive tract
 - e. distal aspect of the stomach
 - i.

FETAL PIG LAB THREE: Digestive System

Simba says, “Howdy!.”

