

NAME _____ LAB TIME/DATE _____

REVIEW SHEET
exercise

Anatomy of the Digestive System

38

General Histological Plan of the Alimentary Canal

1. The general anatomical features of the digestive tube are listed below. Fill in the table to complete the information.

Wall layer	Subdivisions of the layer (if applicable)	Major functions
mucosa	1) epithelium 2) lamina propria 3) muscularis mucosa	absorption secretion
submucosa	(not applicable)	vascular supply for mucosa; protection
muscularis externa	1) circular layer 2) longitudinal layer	churning; mixing; propulsion of food along the tract
serosa or adventitia	(not applicable)	protection

Organs of the Alimentary Canal

2. The tubelike digestive system canal that extends from the mouth to the anus is the alimentary canal.

3. How is the muscularis externa of the stomach modified? It has a third (obliquely oriented) muscle layer.

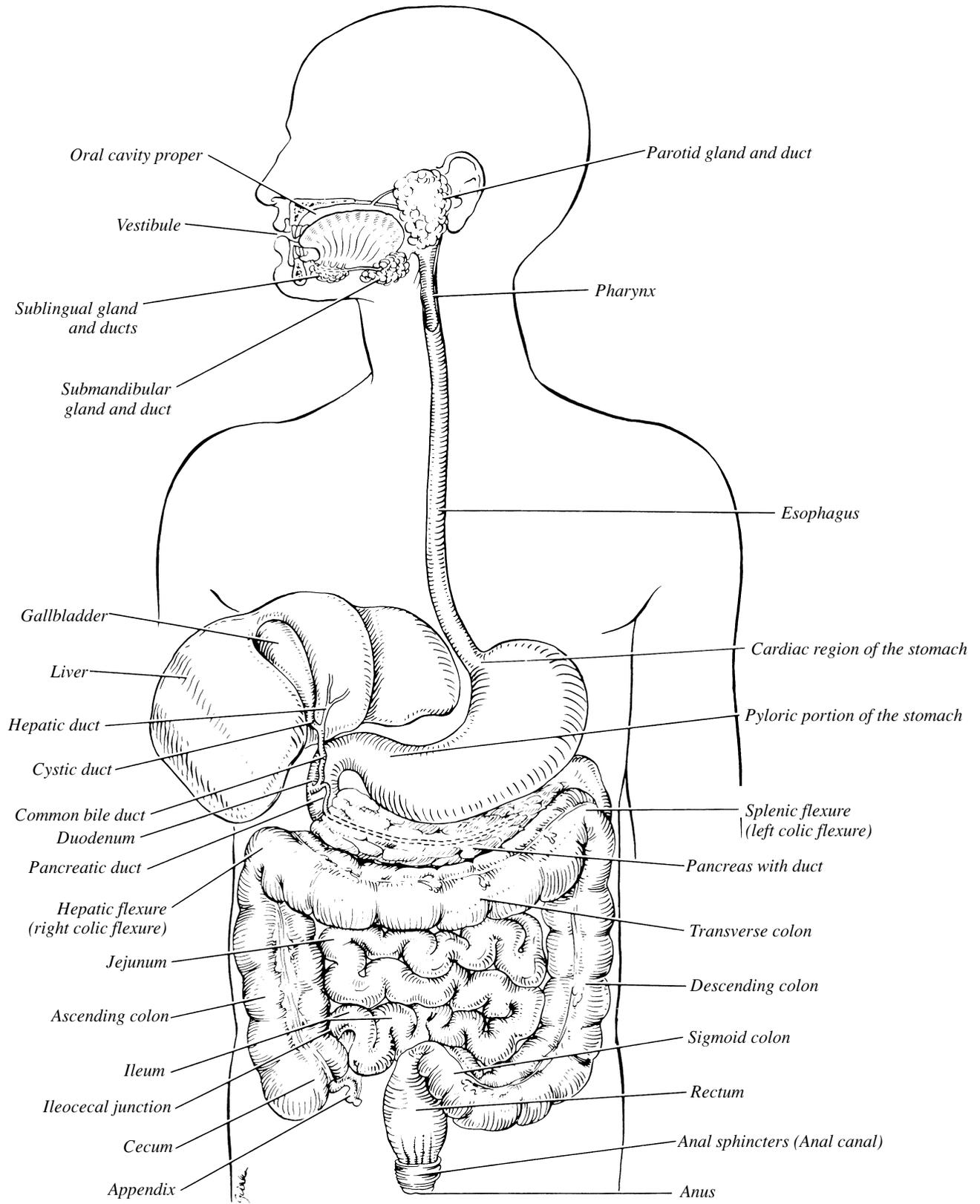
How does this modification relate to the function of the stomach? Vigorous churning activity occurs here.

4. What transition in epithelium type exists at the gastroesophageal junction? Changes from stratified squamous (esophagus) to simple columnar (stomach)

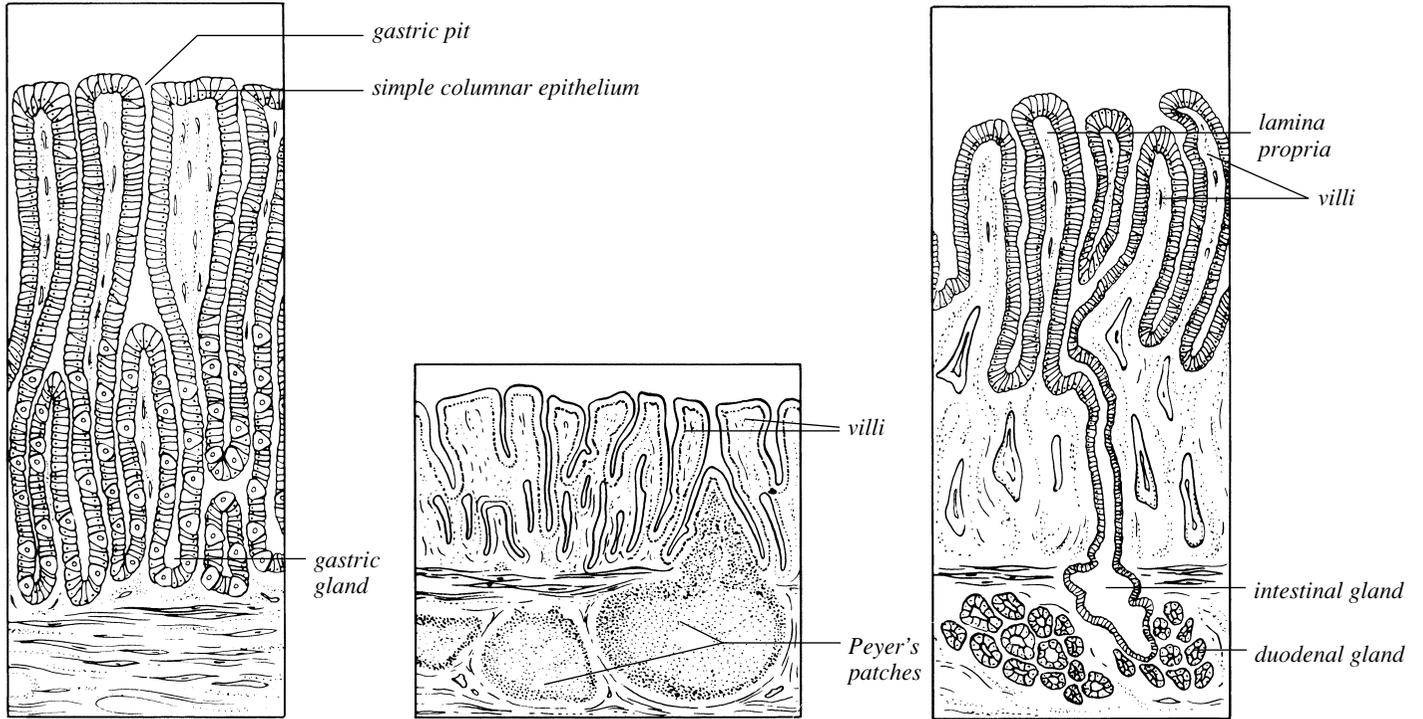
How do the epithelia of these two organs relate to their specific functions? The esophagus is subjected to constant abrasion (stratified squamous is well adapted for this). The stomach has secretory (and some absorptive) functions.

5. Differentiate between the colon and the large intestine. The large intestine includes the colon, but also includes the cecum, vermiform appendix, rectum, and anal canal.

7. Correctly identify all organs depicted in the diagram below.



8. You have studied the histological structure of a number of organs in this laboratory. Three of these are diagrammed below. Identify and correctly label each.



(a) stomach

(b) ileum (small intestine)

(c) duodenum (small intestine)

Accessory Digestive Organs

9. Correctly label all structures provided with leader lines in the diagram of a molar below. (Note: Some of the terms in the key for item 10 may be helpful in this task.)

