

# Chapter 26 Digestive System

*Anatomy and Physiology Text and Laboratory Workbook; Davenport, Stephen*

## DIGESTIVE SYSTEM

1. What are six integrated steps involved in digestion?

### Overview

2. What are the four layers of the digestive tract?

### Mucosa

3. Where is the mucosa located? What are two types of mucosal epithelium? What are enteroendocrine cells? What is the function of transverse or longitudinal folds?

### Submucosa

4. Where is the submucosa located? What does it contain?

### Muscularis externa

5. Where is the muscularis located? What type of muscle dominates it? How are the smooth muscle layers arranged?

### Serosa

6. Where is the serosa located? What type of membrane is it? What is the adventitia?

### Movement of the Digestive Tract

7. Define peristalsis and segmentation.

### Control of Digestive Function

8. What are three ways digestive function is controlled? What is a myenteric reflex?

### Peritoneum

9. What is the name of the membrane which lines the organs within the peritoneal cavity? Where is the parietal peritoneum?

### Mesentery

10. What is the mesentery?

### Oral Cavity

11. What are three functions of the oral cavity? What type of epithelium lines the oral cavity? Where is the vestibule? What are gingivae? What forms the roof of the oral cavity?

### Tongue

Identify the taste buds and papillae from the laboratory workbook.

### Salivary Glands

From the laboratory workbook name salivary glands and identify the mucous and serous cells.

### Saliva

12. What does saliva mostly consist of? What is the function of the glycoproteins? What are five general functions of saliva?

### Pharynx

13. What is the function of the pharynx? What are the three divisions of the pharynx?

### Esophagus

14. What is the function of the esophagus?

### Swallowing

15. What is another term for swallowing? What are the three divisions of swallowing? Which division is voluntary? When does the swallowing reflex start? Where is the swallowing center?

### Stomach

The anatomy / histology of the stomach is studied from the laboratory workbook.

### Regulation of Gastric Activity

16. What triggers the cephalic phase?
17. What three stimuli initiate the gastric phase? What is

gastrin?

18. What initiates the intestinal phase? What is the purpose of the intestinal phase?

### Digestion and Absorption

19. What does the stomach perform preliminary digestion of? What are four reasons there is no nutrient absorption in the stomach.

### Small Intestine

The anatomy / histology of the small intestine is studied from the laboratory workbook

### Intestinal Movements

20. What does the distension of the stomach initiate? What does the gastroileal reflex do? What hormone triggers the relaxation of the ileocecal valve?

### Pancreas

The anatomy / histology of the pancreas is studied from the laboratory workbook.

21. Where is the pancreas located? What are its three divisions? Into what division of the small intestine does the pancreatic duct empty? With what does the pancreatic duct join before entering the small intestine?

22. What is the function of pancreatic juice?

### Physiology of the Pancreas

23. Where is secretin produced? What does it do? Where is cholecystokinin produced? What does it do? What food groups do pancreatic enzymes target?

### Liver

The anatomy / histology of the liver is studied from the laboratory workbook

### Blood supply

24. Where does the liver obtain its blood? After processing where does the blood enter venous circulation?
25. Where does bile originate? Where is it stored? Where is it emptied? Where is the common hepatic duct, common bile duct, and cystic duct?

### Metabolic Regulation

26. What are seven general metabolic functions of the liver?

### Hematological Regulation

27. What are six general hematological functions of the liver?

### Functions of Bile

28. What is the function of bile. Define emulsification.

### Intestinal Hormones

What is the function of: gastrin, secretin, and cholecystokinin.

### Large Intestine

The anatomy / histology of the large intestine is studied from the laboratory workbook

### Physiology of the Large Intestine

29. What is the function of the large intestine? What does the large intestine mostly absorb? What do colonic bacteria do?

### Lipid Digestion

30. What are micelles and chylomicrons?