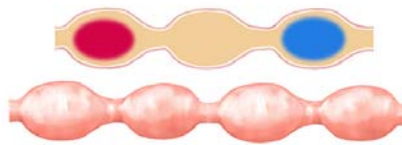


## The Digestive System: Motility

1. The process by which food is received into the GI tract via the mouth is called \_\_\_\_\_.
2. The esophagus is digestive in function.
  - a. True
  - b. False
3. Swallowing has both voluntary and involuntary components
  - a. True
  - b. False
4. The function of the epiglottis is to prevent a bolus from entering the \_\_\_\_\_.
5. The first wave of contraction of the esophageal muscles is called \_\_\_\_\_ \_\_\_\_\_.
6. If a food bolus does not make it all the way to the stomach, \_\_\_\_\_ peristalsis forces the bolus the remainder of the way.
7. Peristaltic contractions of the stomach occur about \_\_\_\_\_ times per minute when food makes it into the body & fundus.
8. The frequency of peristaltic contractions is regulated by \_\_\_\_\_ cells.
9. Gastric emptying would be slowed by which of the following:
  - a. Fats in the duodenum
  - b. Acids in the duodenum
  - c. Hypertonic solutions in the duodenum
  - d. Distention of the duodenum
  - e. All of the above
10. \_\_\_\_\_ regulate gastric juice secretion during the cephalic phase.
11. \*Now would be a great time to fill in the interactive table on page 7 of the Motility topic.
12. The cephalic phase of digestion is regulated by short reflexes
  - a. True
  - b. False.

13. The \_\_\_\_\_ nerve carries electrical signals from the brain to the stomach.
14. The hormone \_\_\_\_\_ regulates gastric secretion during the gastric phase of digestion.
15. Gastric motility \_\_\_\_\_ as the stomach begins to receive food.
16. The hormone \_\_\_\_\_ released by the duodenum cause gastric motility to decrease when fats are present in the duodenum.
17. The hormone \_\_\_\_\_ causes the gall bladder to contract and release bile into the small intestine.
18. The \_\_\_\_\_ reflex describes the communication between the intestine and the stomach.
19. Sympathetic nervous system stimulation \_\_\_\_\_ digestive system activity.
20. The motility process illustrated below is \_\_\_\_\_.



21. Segmentation moves chyme in only one direction.
  - a. True
  - b. False
22. The frequency of segmentation contractions is greatest in the \_\_\_\_\_.
23. \_\_\_\_\_ reflexes stimulate the ileum to increase activity when food is in the stomach.
24. The hormone \_\_\_\_\_ causes the ileocecal sphincter to relax during the gastric phase.
25. During the inter-digestive period, \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ occur about once every 90 minutes to move undigested materials toward the terminal ileum.
26. Migrating motility complexes are controlled by the central nervous system
  - a. True
  - b. False

27. List the two major functions of the large intestine.

a. \_\_\_\_\_

b. \_\_\_\_\_

28. Pockets formed by the contractions of the transverse and descending colon musculature are called \_\_\_\_\_.

29. Sustained, intense propulsive peristaltic contractions of the large intestine are called \_\_\_\_\_.

30. Which of the following is under voluntary control?

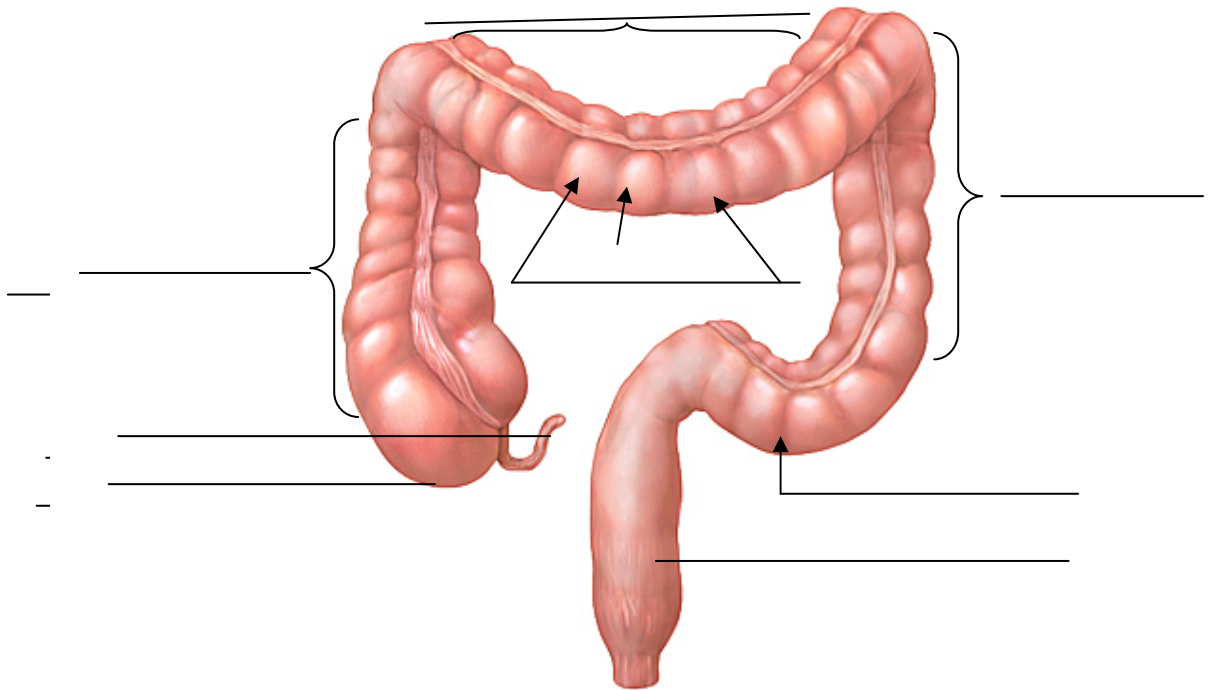
a. Internal anal sphincter

b. External anal sphincter

31. Only about \_\_\_\_\_ ml of the 500 ml of chyme that entered the colon is voided as feces.

32. Place the following labels on the large intestine figure below:

*Cecum, ascending colon, transverse colon, descending colon, sigmoid colon, rectum, haustra, appendix*



33. The \_\_\_\_\_ reflex stimulates mass movements of the colon.

34. List three emotions that may produce constipation

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_.

35. The vomiting reflex is coordinated in the \_\_\_\_\_.

36. Which of the following is not typically a stimulus for the vomiting reflex?

a. Noxious chemicals

b. Abnormal vestibular stimulation

c. Sudden injury to the testes

d. Sleep