

The Digestive System & Metabolism (C24 & C25) Study Guide

Hot List Questions – C24 & C25

1. What are the functions of the digestion system? Significance ingestion, compaction, digestion, absorption, secretion?
2. What are the organs of the alimentary canal? Function of each segment?
3. What are the accessory organs of the digestive system?
4. What are the four classes of macromolecules and what are their monomers called?
5. What is the structure of a gastric pit?
6. What type of secretions are made by the different cell types within a gastric pit?
7. What is the difference between chemical and mechanical digestion? Significance?
8. What is a zymogen?
9. What is the enterogastric reflex?
10. How long does it take to empty the stomach after a meal?
11. Where and how is glucose stored in the body? Time to deplete stored glucose when running?
12. What is bile? Function of each component?
13. What is an enteroendocrine cell?
14. What is secretin? Produced by? Significance?
15. What is cholecystokinin? Produced by? Significance?
16. What is glucose-dependent insulinotropic peptide? Significance?
17. What is ghrelin? Significance?
18. What is contact digestion? Explain function.
19. What is the migrating motor complex called?
20. How is peristalsis different than segmentation? Significance of each?
21. What is the difference between chylomicrons, micelles, HDL, and LDL?
22. How is the surface area of the small intestine increased? Significance?
23. What is the volume of the stomach when empty? After normal meal? After holiday meal?
24. What three terms describe food as it passes through the alimentary canal?
25. How much food passes into the duodenum with each stomach contraction?
26. Where does most nutrient digestion and absorption?
27. Where does carbohydrate digestion begin? Enzyme for this digestion?
28. Where does protein digestion begin? Enzyme for this digestion?
29. Where does lipid digestion occur? Enzyme(s) for this digestion?
30. What are sphincter muscles? Where are they located in the digestive system? Significance?
31. What molecule alters your behavior so you search for food? Produced by? Receptor?
32. What is the significance of the hepatic portal vein?
33. What class of nutrient does not travel in the hepatic portal vein? Why?
34. What are the three phases of gastric regulation? Explain
35. What three factors protect the stomach mucosa from “digestion”?
36. What is the enterohepatic circulation? Significance?
37. What is the structure and function of HDL, VLDL, and LDL?
38. What is the alkaline tide?
39. What is the only essential function of stomach?
40. What is the significance of glycolysis and the Krebs's Cycle? Where do they occur? Net result of each pathway?
41. What is the function of enterokinase?
42. What is the significance of the enteric nervous system? How is it modified?