

Structure & Function of Small Intestine/Accessory Organs**Activities of the Small Intestine**

Instructions: Using the following choices. Complete the paragraph below with the correct word. (12 pts)

- A. Absorption B. Bile C. Circular folds D. Duodenum E. Ileum F. Fats
 G. Gallbladder H. Vagus I. Ileocecal J. Jejunum K. Surface area L. Liver
 M. Microvilli N. Neutralize O. Parasympathetic P. Pyloric Q. Partially
 R. Accessory S. Secretin T. Pancreas U. Pancreatic juice V. Villi
 W. Cholecystokinin (CCK) X. All

Once digested in the stomach, chyme moves into the small intestine through the _____ sphincter. Chyme reaching the small intestine is only _____ digested. The first subdivision of the small intestine, called the _____, completes the rest of the digestion process that began in the mouth and stomach with the help of three _____ organs. The first is the _____, which is a soft, pink triangular gland. The _____ nerve of the _____ division of the nervous system stimulates the pancreas to release _____. It contains a wide spectrum of digestive enzymes that breaks down _____ categories of food. The fluid also helps _____ the acidic chyme coming from the stomach. The second accessory organ is the _____, which is the largest gland in the body consisting of four lobes. Its function is to produce _____, which is used to emulsify or break down _____. When digestion is not occurring, the _____, which is a green sac located underneath the liver stores bile. Two important hormones that influence the release of pancreatic juice and bile are _____ and _____. The end products of digestion then travel through the 2nd and 3rd part of the small intestine known as the _____ and _____, respectively. These subdivisions are largely responsible for the _____ of nutrients. This area of the small intestine contains important structural modifications that help increase the _____ for absorption. The three structures are _____, _____, and _____. Nutrients that are absorbed through the cell membrane into the blood are transported to the liver by the hepatic portal vein. Here the blood is filtered and detoxified. The rest of the residue left in the small intestine then passes to the large intestine through the _____ valve.

Small Intestine/Accessory Organs – True or False

Instructions: For each true statement, insert T. If any of the statements are false, correct the underlined word by inserting the correct answer/word into the blank. (12 pts)

_____ 1. Structural modification to the small intestine is designed to increase surface area for food absorption.

- _____ 2. Microvilli are fingerlike projections that contain lymphatic capillaries that take up lipids.
- _____ 3. The liver is suspended from the diaphragm and abdominal wall by the falciform ligament.
- _____ 4. The pancreas produces digestive enzymes that break down all food categories.
- _____ 5. The small intestine is a muscular tube that extends from the cardio-esophageal sphincter to the ileocecal valve.
- _____ 6. The liver's digestive role is to produce mucus.
- _____ 7. The jejunum and ileum are responsible for the ingestion of nutrients.
- _____ 8. The pancreas is the soft, pink triangular gland.
- _____ 9. The hormones acetylcholine and cholecystokinin control release of pancreatic juice and bile.
- _____ 10. The vagus nerve stimulates the release of pancreatic juice.
- _____ 11. The jejunum is the first part of the small intestine.
- _____ 12. The small intestine is suspended from the posterior abdominal wall by mesentery
- _____ 13. The liver is the largest gland in the body that consists of four lobes.
- _____ 14. Substances absorbed into the blood is transported to the liver.
- _____ 15. The last part of the small intestine joins the large intestine at the pyloric valve.
- _____ 16. Peyer's patches are collections of lymphatic tissue that help prevent harmful pathogens from affecting the body.
- _____ 17. Bile helps break down fats and necessary for absorption of fat soluble vitamins.
- _____ 18. The duodenum is the region of the small intestine where the rest of digestion takes place.
- _____ 19. Peristalsis is the major means of moving food.
- _____ 20. Circular folds forces chyme to travel quickly through digestive tract.
- _____ 21. The small intestine is the body's major digestive organ.
- _____ 22. The gallbladder stores and releases bile when fatty food enters duodenum.
- _____ 23. The pancreas is also a part of the cardiovascular system.
- _____ 24. Brush border enzymes located on microvilli help digest proteins and carbohydrates.