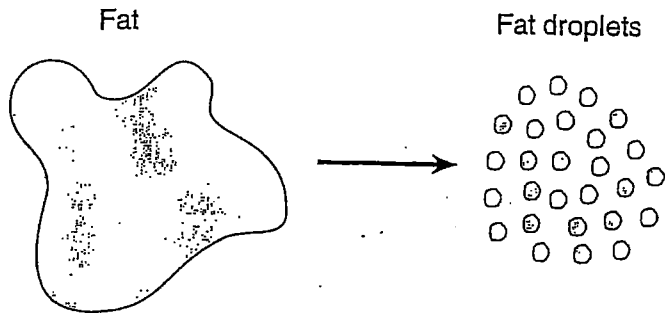


PRACTICE QUIZ:

1. Secretions from which of the following would have the effect shown in the diagram below?



- A. liver B. mouth C. stomach D. large intestine

Nutrients are transported from the small intestine to the liver by the:

- A. hepatic vein. B. hepatic portal vein. C. lymphatic system. D. mesenteric artery.

2. After chewing a starchy food for a few minutes, a person experiences a sweet taste in the mouth. Which of the following enzyme-substrate complexes was involved?

- A. maltase - glucose B. trypsin - peptide
C. lipase - triglyceride D. amylase - polysaccharide

3. The following events take place after eating a protein-rich meal.

1. The pancreas releases sodium bicarbonate (NaHCO_3).
2. Pepsinogen is converted into pepsin.
3. Gastrin is released into the bloodstream.
4. Acid chyme stimulates the release of secretin.

Place these events in the correct order for digestion.

- A. 3, 2, 4, 1. B. 3, 4, 2, 1. C. 4, 2, 3, 1. D. 2, 4, 1, 3.

4. In humans, the bacteria *E. coli* are normally found within the:

- A. colon. B. mouth. C. pancreas. D. small intestine.

5. The correct sequence of structures that food contacts as it moves along the digestive system is:

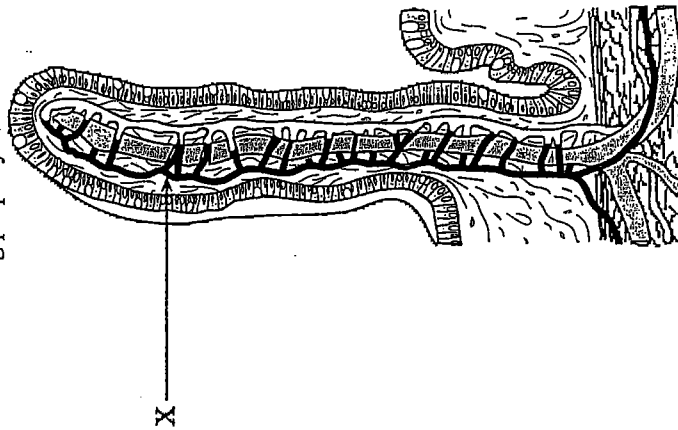
- A. mouth, stomach, large intestine, small intestine, anus.
B. pharynx, small intestine, stomach, large intestine, anus.
C. mouth, esophagus, stomach, small intestine, large intestine.
D. esophagus, pharynx, stomach, large intestine, small intestine.

6. Which of the following is an example of physical digestion?

- A. hydrolysis B. release of gastrin
C. churning in the stomach D. action of lipase in the small intestine

9. An example of chemical digestion is:
 A. chewing. B. absorption. C. hydrolysis. D. peristalsis.

10. The absorption of materials at structure X is temporarily impaired. What would occur during the time that structure X is not functioning properly?



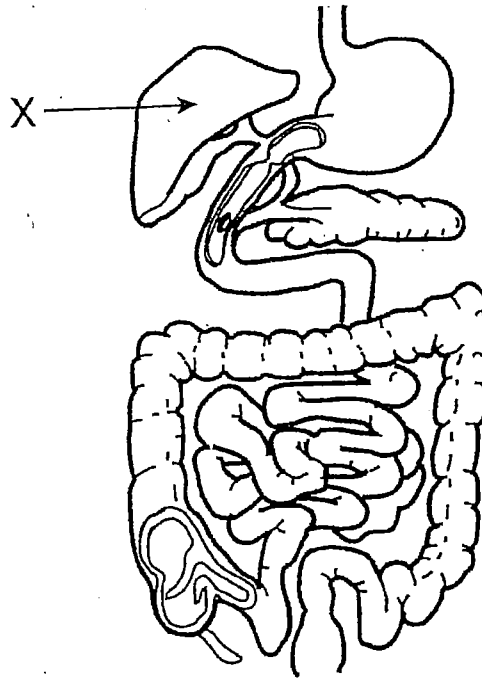
- A. Absorption of fats would stop.
- B. The amount of glycogen produced in the liver would decrease.
- C. The pancreas would release more enzymes and bicarbonate ions.
- D. Pepsinogen would be secreted by the stomach in greater amounts.

11. The following events take place after eating a high protein meal.

1. increased production of gastric juice
2. conversion of pepsinogen into pepsin
3. release of gastrin into the bloodstream
4. breakdown of polypeptides into peptides

Place these events in the correct order.
 A. 2, 1, 3, 4 B. 3, 1, 2, 4 C. 3, 2, 1, 4 D. 4, 2, 1, 3

7. A function of the structure labelled X below is the production of:



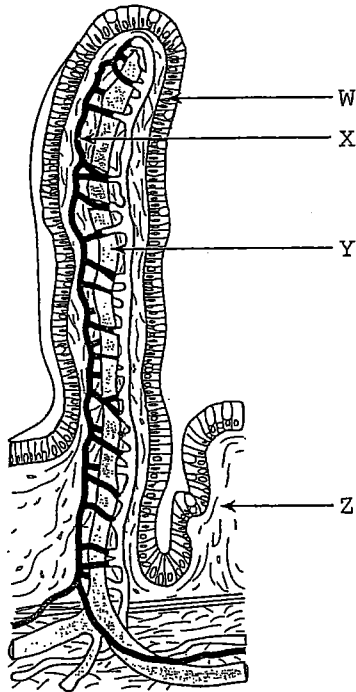
- A. urea.
- B. lipase.
- C. mucus.
- D. hydrochloric acid.

8. Villi are found in the
 A. esophagus. B. liver. C. small intestine. D. stomach.

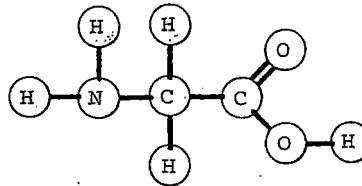
12. Products of the liver include
 A. pepsin, gastrin and bile.
 C. bile, urea and blood proteins.

- B. bile, proteases and urea.
 D. proteases, amylases and lipase.

13. Where in the structure below would molecule A be transported to?
 structure



molecule A



- A. W B. X C. Y D. Z

14. What would occur if sodium bicarbonate ions were NOT present in pancreatic juices?
 A. Bile would not emulsify fats.
 B. Trypsin would not break down proteins.
 C. Protein digestion in the stomach would not occur.
 D. Water would not be reabsorbed in the large intestine.

15. Which of the following are functions of the liver?

1. produce urea
2. produce insulin
3. detoxify the blood
4. synthesize plasma proteins
5. synthesize digestive enzymes

- A. 1, 2, 5 B. 1, 3, 4 C. 2, 3, 4 D. 3, 4, 5

16. How many of the results below are from the action of gastric juice?

- * bacteria cells are destroyed
- * amylase becomes denatured
- * pepsinogen becomes activated
- * trypsinogen changes into trypsin

- A. one B. two C. three D. four

17. *E. coli* are beneficial to humans because they:
 A. convert pepsinogen to pepsin.
 B. produce vitamins and amino acids.
 C. absorb water from the large intestine.
 D. synthesize urea from the breakdown of amino acids.