Absorption and Leaky Gut Syndrome

Read Chapter 20.5

Fill in the blanks

1. The purpose of microvilli is to increase _____

2. Ions move across the epithelial cell membrane using _____

3. Glucose moves across the membrane using _____

4. Water can move across the membrane via osmosis or it can also move through membrane proteins called _____

5. Calcium can only be absorbed in the small intestine if _____ is present.

6. Sodium-potassium pumps are located on the (lumen or basolateral) _____ side of the epithelial cells.

7. Can sucrose be absorbed into the bloodstream without being digested into monosaccharides (yes or no) _____

8. Can small peptides be absorbed into the bloodstream without being digested completely into amino acids (yes or no) _____

9. Paracellular transport of water means the water is moving (through or between) _____ epithelial cells.

10. _____ junctions hold epithelial cells together and form a barrier that prevents undigested molecules from entering the blood.

11. Water-soluble vitamins such as Vit C moves across the membrane using a _____ co-transporter membrane protein.

12. Fat droplets are mechanically broken down using _____ and chemically digested by lipase to form glycerol and _____.

13. Bile salts and the digested fats form tiny droplets called _____

14. Fatty acids, monoglycerides, glycerol, and fat-soluble vitamins can move across the membrane by (simple or facilitated) _____ diffusion.

15. Once inside the epithelial cell, the glycerol and fatty acids are made back into _____

16. Triglycerides, phospholipids, cholesterol, and fat-soluble vitamins then group together

   forming _____ that leave the cell through exocytosis and enters

   the (capillary or lacteal) _____

17. Name 3 things that can damage the intestinal lining and cause "leaky gut syndrome":

   a. _____

   b. _____

   c. _____

18. Leaky gut/ hyperpermeability can lead to increased inflammation in the body (true or

   false) _____