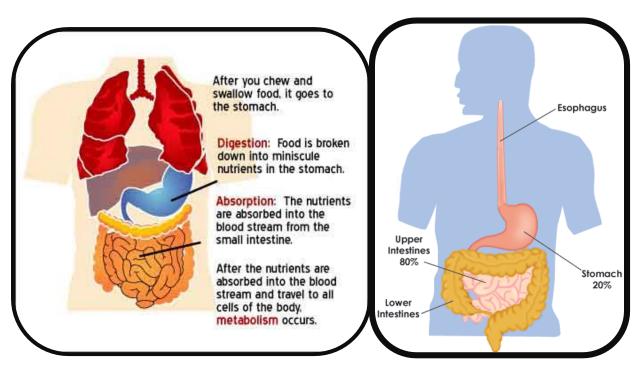
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ABSORPTION

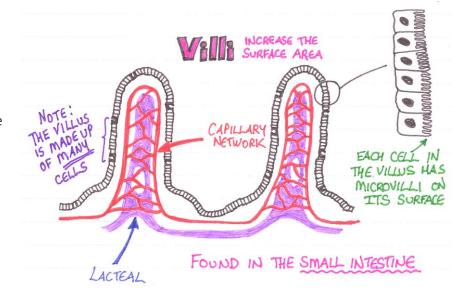


SMALL INTESTINE:

- The small intestine averages about <u>6 meters</u> in length. It is the site of chemical digestion and nutrient absorption in the digestive tract.
- In order to absorb nutrients efficiently, the small intestine has an extremely large <u>surface</u> <u>area.</u> It has been suggested that the surface area is approximately that of a tennis court.
- This large surface area is due to the finger-like projections on the walls of the small

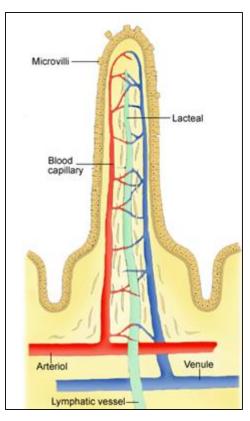
intestine known as <u>villi</u>. These villi give the small intestine a soft, velvety appearance.

- Each villi is covered with millions of microscopic extensions called microvilli. The microvilli increase the surface area used for absorption even more.
- A villus contains blood capillaries and a small lymphatic capillary in the centre known as a lacteal.

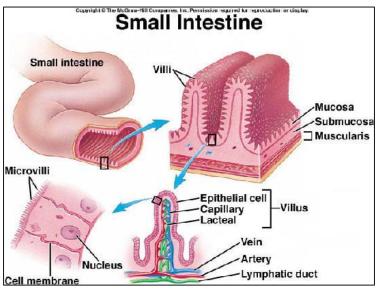


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- Sugars (<u>carbohydrates</u>) and amino acids (<u>proteins</u>) enter the blood capillaries of a villus.
- Glycerol and fatty acids (digested from <u>fats</u>) enter the outer epithelial cells of the villus and then enter the lacteal.
- After the nutrients are absorbed, they are eventually carried to the <u>bloodstream</u>.



LARGE INTESTINE:

- Does not produce digestive enzymes.
- Absorbs water, salts and some vitamins.
- Stores indigestible material until it is eliminated at the anus.

