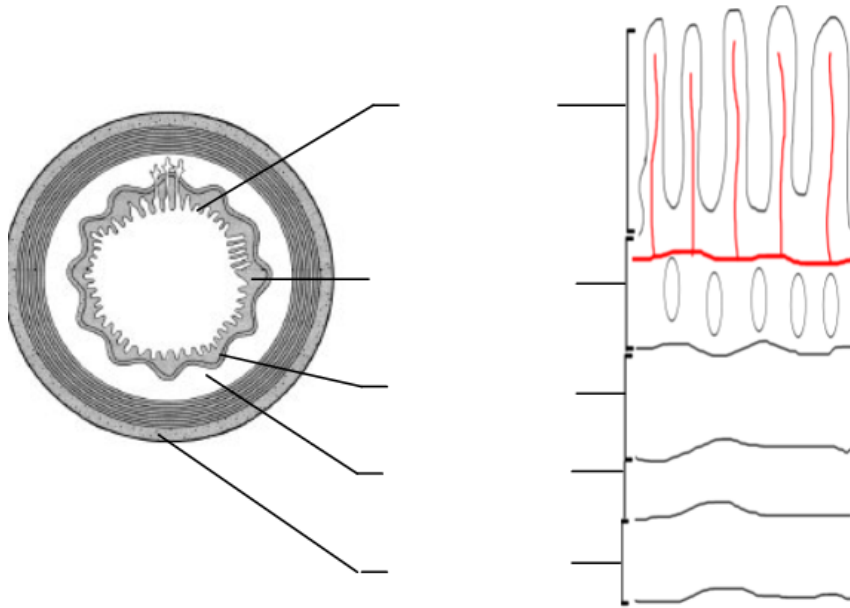


Absorption of Digested Foods (FHP)

Label and annotate these diagrams to show the structures of the ileum and epithelial cells of the villus.

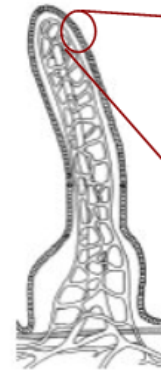
ileum transverse section, LM



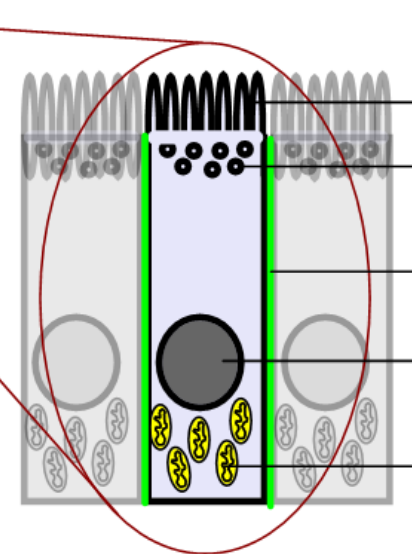
Labels: villi, mucosa, submucosa, circular and longitudinal muscle.

What is the role of the circular and longitudinal muscle?

single villus, TEM



epithelial cell, TEM



What are the functions of these parts of the villus cell?

Microvilli

Pinocytotic vesicles

Tight junction

Mitochondria

Mechanisms of absorption

Explain, the methods used to uptake and transport these nutrients. Methods of uptake include simple diffusion, facilitated diffusion, active transport and endocytosis.

Water	Fats	Fructose	Monosaccharides & Amino Acids	Polypeptides
Uptake: <i>Simple diffusion (osmosis)</i>	Uptake:	Uptake:	Uptake:	Uptake:
Transport: <i>Carried in the blood</i>	Transport: <i>Chylomicrons deliver lipids to the lymph vessels by exocytosis</i>	Transport:	Transport:	Transport:
Diagram & Explanation:	Diagram & Explanation:	Diagram & Explanation:	Diagram & Explanation:	Diagram & Explanation:
Structural adaptations: <i>Water is small enough to pass between the phospholipids of the plasma membrane. Large surface area due to microvilli.</i>	Structural adaptations: <i>Lipids pass easily through the phospholipid bilayer. Large surface area due to microvilli. Lots of endoplasmic reticulum to make lipoproteins (chylomicrons)</i>	Structural adaptations:	Structural adaptations:	Structural adaptations:
Notes:	Notes:	Notes:	Notes:	Notes:

List that materials which are egested in faeces: