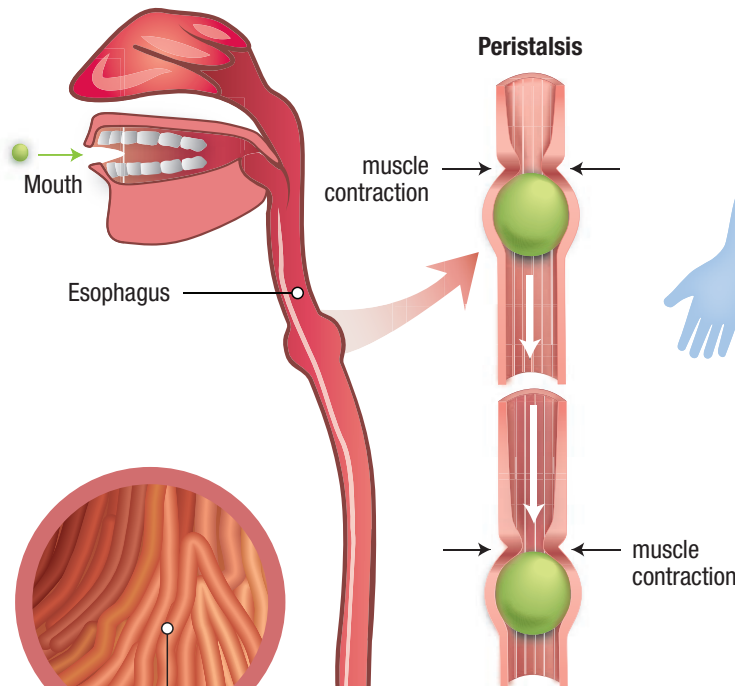


Human Body: Digestive System

The main functions of the digestive system are mechanical and chemical digestion, and absorption. Digestion is the process in which the body breaks food down into smaller molecules so that nutrients can be easily absorbed. The entire digestion process can take anywhere from 24 to 50 hours.

Mouth/Esophagus

Digestion begins in the mouth through the mechanical and chemical breakdown of food. Smooth muscle tissue in the esophagus squeezes the food down toward the stomach in a process called peristalsis.

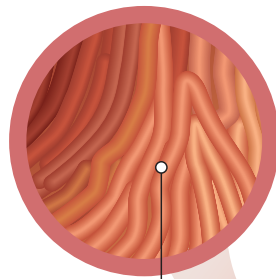


Stomach

Mechanical and chemical digestion continues in the stomach. Smooth muscle tissue in the stomach wall squeezes and churns the material, while enzymes and chemicals are added to help further break down the food.

Stomach structure

The internal structure of the stomach has ridges and folds called rugae. This increases the surface area within the stomach and allows it to expand to hold more food.



Rugae

Stomach

Duodenum

Intestines

The small intestine and large intestine (colon) combined average 25 feet long.

Small Intestine

The majority of absorption takes place in the small intestine, which is about 20 feet long. The small intestine has 3 sections: duodenum, jejunum, and ileum.



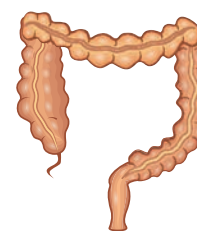
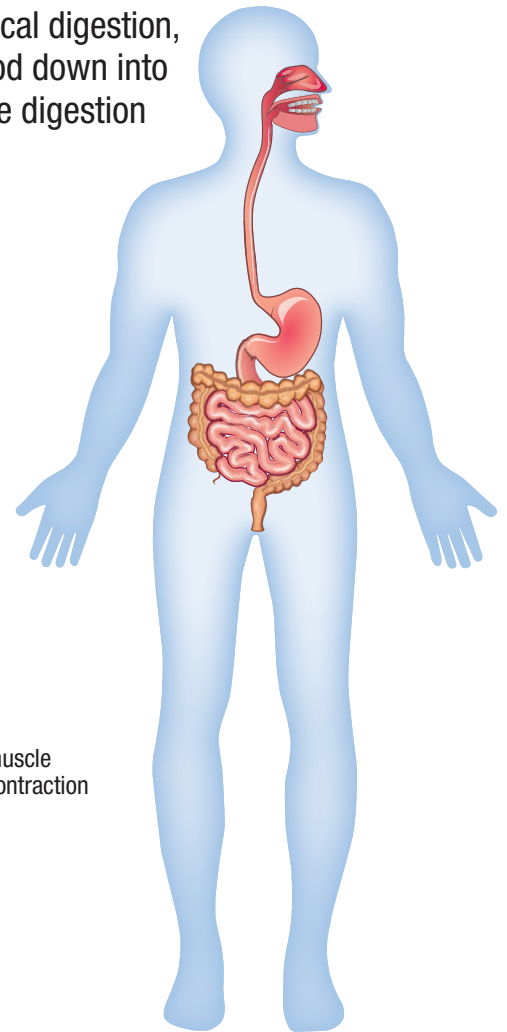
Jejunum

Appendix

Ileum

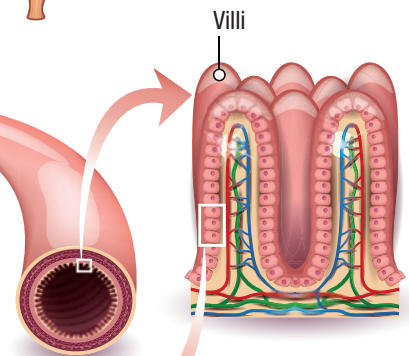
Rectum

Finger-like extensions called villi and microvilli increase the surface area of the small intestine, allowing maximum absorption of nutrients and water.



Large Intestine

The large intestine, about 5 feet long, is responsible for eliminating waste matter.



Villi

Microvilli