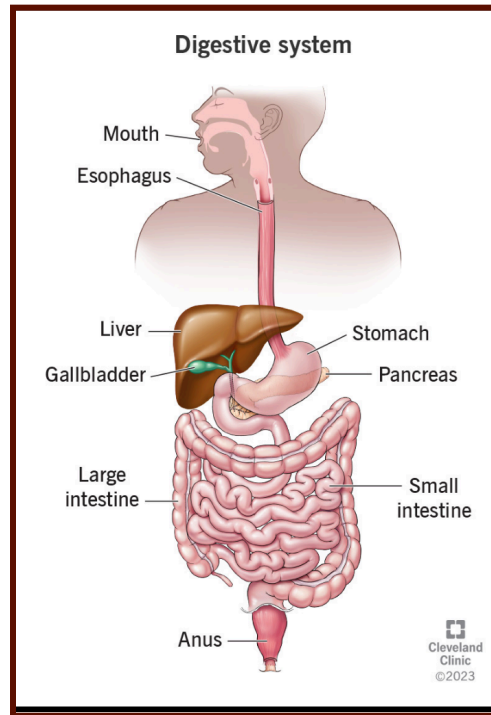


Grade 6 Science - Functions of the Digestive System

Lesson Notes



Main Functions of the Digestive System

1. Digestion

Digestion is the process of breaking down food into smaller, absorbable components. This occurs through both mechanical means (like chewing and churning in the stomach) and chemical means (such as the action of enzymes and acids). The goal is to convert food into nutrients that the body can use for energy, growth, and cell repair.

2. Absorption

Absorption is the process by which the nutrients from digested food are taken up into the bloodstream. This primarily occurs in the small intestine, where the inner surface is lined with tiny, finger-like projections called villi that increase the surface area for absorption. Nutrients such as carbohydrates, proteins, fats, vitamins, and minerals are absorbed here.

3. Motility

Motility refers to the movement of food through the digestive tract. This is achieved through a series of coordinated muscle contractions known as peristalsis. Peristalsis helps push food along the digestive system, from the esophagus to the stomach and through the intestines, ensuring that food is processed efficiently.

4. Secretion

Secretion involves the release of digestive juices, enzymes, and hormones that facilitate the digestion process. The salivary glands secrete saliva in the mouth, the stomach produces gastric juices, and the pancreas releases enzymes into the small intestine. These secretions help break down food and regulate various digestive functions.

Summary

The digestive system plays a crucial role in converting the food we eat into essential nutrients that our bodies need to function. Understanding the main functions—digestion, absorption, motility, and secretion—helps us appreciate how our bodies process food and maintain overall health.