



The Digestive System

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Our body requires food for energy, vitamins, and minerals.

The food we eat must be broken down into smaller substances that can be absorbed by cells and organs.

Definition of Digestion

Digestion is the breakdown of food into smaller components that can be easily absorbed into the bloodstream.

Several organs work together to carry out digestion efficiently.

Main Organs of the Digestive System

Mouth

- Digestion begins in the mouth.
- Food is chewed into small pieces to aid swallowing and digestion.
- Saliva (produced by salivary glands) mixes with food and begins breaking down starch into simple substances.

Food Pipe (Oesophagus)

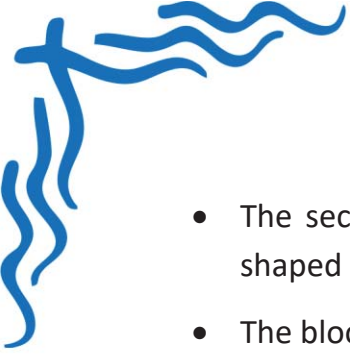
- The tongue pushes food into the throat.
- Throat muscles move the food down into the oesophagus.
- A flap called the epiglottis prevents food from entering the windpipe, avoiding choking.

Stomach

- Food remains in the stomach for about four hours.
- The stomach is a muscular bag that crushes food.
- It contains acids and enzymes that kill bacteria and break down proteins into simpler substances for absorption.

Small Intestine

- The first part of the small intestine works with liver and pancreatic juices to continue digestion.



- The second part absorbs nutrients into the blood through the villi (tiny finger-shaped projections).
- The blood carries nutrients to all cells in the body.
- Digestion is completed in the small intestine.
- Did You Know? The liver can regenerate itself even after being almost completely removed.

Large Intestine

- Undigested food moves into the large intestine.
- Water is absorbed, and solid waste is left behind, forming faeces.
- The large intestine is involved in both digestion and excretion.
- Did You Know? The small intestine is about 21 feet long, while the large intestine is 6 feet long.

Anus

The waste material is expelled from the body through the anus (rectum).

The Liver and Pancreas

Both organs assist the small intestine in digestion.

Liver:

- Produces bile, which helps break down fats.
- Processes digested food before sending it to different parts of the body.
- Bile is stored in the gall bladder.

Pancreas:

Produces pancreatic juice, which contains enzymes for digesting proteins, carbohydrates, and fats.

Conclusion

- The digestive system plays a crucial role in breaking down food and absorbing nutrients.
- Each organ has a specific function, ensuring food is converted into energy and essential nutrients for the body.
- Proper digestion ensures overall health and efficient functioning of the body.