Oral Cavity

The oral cavity is the place of entry for food, and the beginning of the digestive tract. It starts with the mouth, where food intake occurs and digestion begins.The first process that occurs is mechanical digestion, or mastication, in which large food is broken down into smaller particles. This increases the surface area to volume ratio for nutrient breakdown and absorption. Amylase in saliva begins to breakdown carbohydrates, hydrolyzing starches into smaller sugars. Additionally, lingual lipase is released with the saliva, and begins lipid breakdown in the mouth. The food then travels to the esophagus, which is the muscular connector between the mouth and stomach. The first third of the esophagus is under voluntary muscular control, which allows us to control pushing food down. However, the last two-thirds of the esophagus are under involuntary autonomic control. In that section, peristalsis, a series of wave-like contractions and relaxations, pushes the bolus of food down the esophagus and into the stomach.



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Characteristics

Mouth
Mouth
The mouth is the start of the digestive tract where food is inserted for consumption.

Mechanical Digestion
Mouth Machine
Mechanical digestion, or mastication, is the primary function of the mouth, and it involves breaking up large food into smaller particles to increase the surface area to volume ratio.

Salivary Amylase Begins Carbohydrate Breakdown
Salivating Animal-cracker Shooting hydrant-laser at Bread
Salivary glands secrete salivary amylase to hydrolyze starches into smaller sugars, beginning the breakdown of carbohydrates.

Lingual Lipase Begins Lipid Breakdown
Lip-laser Breaking Down Fat
Lingual lipase is a digestive enzyme that works to break down triglycerides into glycerides and fatty acids. It is released into the mouth alongside saliva and is the first step in lipid digestion, taking place in the mouth.

Esophagus
Sarcophagus
The esophagus is the connector that pushes food exiting the mouth into the stomach actively with muscle contraction. The top of the esophagus has muscle cells under voluntary control for swallowing. However, the lower two-thirds of the esophagus is under involuntary control through the autonomic nervous system.

Bolus
Ball-of-food
The bolus is a ball of food formed at the end of the mouth by the muscular tongue. The bolus travels down the esophagus and into the stomach.

Peristalsis
Pear-with-stilts
Peristalsis is a wave-like symmetrical contraction and relaxation of smooth muscle in the esophagus. It is responsible for the involuntary control of the swallowing mechanism.

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