

Chewing and Swallowing

by Sophia



WHAT'S COVERED

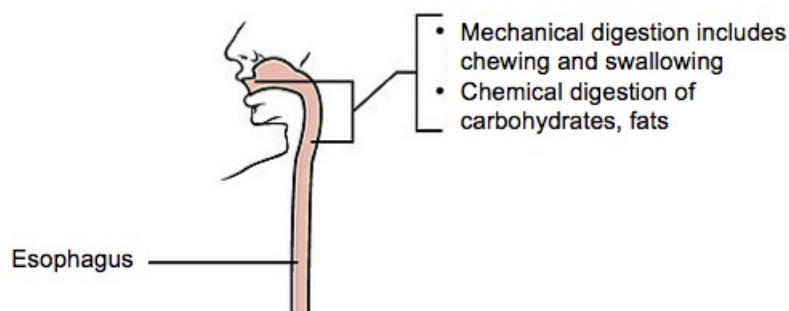
In this lesson, you will learn to determine the elements of chewing and swallowing and their roles in digestion. Specifically, this lesson will cover:

1. The Mouth

The actions of the mouth are the first step in digestion and involve the chewing and swallowing of food. Within the mouth, we have two forms of digestion that are occurring:

- Mechanical digestion
- Chemical digestion

Both are happening in your mouth at the same time to help break down food as the first step in digestion before it reaches the stomach. We're going to take a look at the differences between these two types of digestion and where they occur in the mouth.



1a. Mechanical Digestion

Mechanical digestion is the digestive process that physically breaks down food. Mechanical digestion occurs by physical movements of various digestive organs. In your mouth, an example of mechanical digestion would be when you chew, and your teeth physically break the food down.



TERM TO KNOW

Mechanical Digestion

The physical breakdown of food into smaller pieces.

1b. Chemical Digestion

Chemical digestion also occurs in your mouth (as well as the rest of the alimentary canal) and is when chemicals break down the food. Chemical digestion in your mouth is carried out by enzymes. Enzymes play a role throughout your whole digestive system in chemical digestion.

One specific enzyme in your mouth that's very important is called **salivary amylase**. Salivary amylase is an enzyme secreted by your **salivary glands** in your mouth that helps break down starches in the foods that you eat into simple sugars, such as monosaccharides and disaccharides.



TERMS TO KNOW

Chemical Digestion

The breakdown of food by enzymes or chemicals.

Salivary Amylase

An enzyme found in saliva that chemically breaks down starches into simple sugars.

Salivary Glands

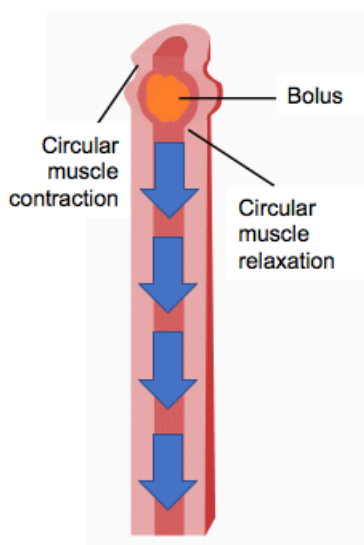
Glands in the mouth which release saliva to aid in the chemical digestion of foods while you chew.

2. Peristalsis

As you're chewing food, your tongue will push the food against your **palate**, which is also known as the roof of your mouth, and mix it with saliva. Once the mouth is done mechanically and chemically digesting the food, it is then swallowed; the chewed ball of food that is swallowed is called a **bolus**.

As the food is swallowed, it will move down through your esophagus toward your stomach via **peristalsis**. Peristalsis is characterized by wave-like contraction of the muscles of the digestive tract that propels food through it. Your esophagus will contract just above the bolus and push it downward. Then, a new contraction will go above it again and push it down farther.

Peristalsis is also how your stomach mechanically breaks the bolus down further and how the intestines push food through your digestive tract.





TERMS TO KNOW

Palate

Also known as the "roof" of your mouth; the tongue presses food against the palate and mixes it with saliva to break it down before swallowing.

Bolus

The ball of chewed food that is swallowed.

Peristalsis

Wave-like muscle contractions.



SUMMARY

This lesson has been an overview of chewing and swallowing and their role in digestion. Specifically, you looked at the role of **the mouth**, the differences between **mechanical** and **chemical digestion** and the role of **the peristalsis**.

Keep up the learning and have a great day!

Source: THIS WORK IS ADAPTED FROM SOPHIA AUTHOR AMANDA SODERLIND



ATTRIBUTIONS

- [Mouth](#) | Author: Wikipedia | License: Creative Commons
- [Peristalsis](#) | Author: Wikipedia | License: Creative Commons



TERMS TO KNOW

Bolus

The ball of chewed food that is swallowed.

Chemical Digestion

The breakdown of food by enzymes or chemicals.

Epiglottis

Covers the larynx during swallowing to prevent food or liquids from entering the lungs.

Mechanical Digestion

The physical breakdown of food into smaller pieces.

Palate

Also known as the "roof" of your mouth; The tongue presses food against the palate and mixes it with saliva to break it down before swallowing.

Peristalsis

Wave-like muscle contractions.

Salivary Amylase

An enzyme found in saliva that chemically breaks down starches into simple sugars.

Salivary Glands

Glands in the mouth which release saliva to aid in the chemical digestion of foods while you chew.