

Digestion in the Mouth

By Jennifer Kenny



- 1 Where do you think digestion begins? Most people automatically think of the stomach when they think of digestion. Actually, though, digestion starts in the mouth as the first workstation in the digestive process.
- 2 Food, of course, is ground up by our teeth. We chew without thinking. The jaw muscles pull the jaw up and down, thereby crushing the food and making it softer and smaller.
- 3 When you are chewing, glands make saliva. Two quarts of saliva are produced each day. Saliva is constantly produced, but more of it is made when we eat. Smelling, seeing, or thinking about food gets the process of making more saliva started. Talk about a mouth-watering meal!
- 4 Saliva softens and moistens food in your mouth. Enzymes in saliva help break down food so that it is easier to swallow. Saliva helps us taste food. It also keeps your mouth healthy by washing away bacteria, viruses, and yeast that could cause infection. It clumps these unhealthy microbes together so they can be swallowed and then killed by the stomach acid.
- 5 Saliva is more than 99% water. Sometimes it is thin and watery. Sometimes it is thick and full of mucus. Its composition, or what it is made of, depends on the food you are eating. Saliva also contains the compound EGF (epidermal growth factor). This compound speeds repairs so cuts in your mouth heal quickly. Saliva protects your mouth from erosion, or the gradual wearing away, by acidic foods you eat. It also washes away sugars that bacteria feed on.
- 6 Your tongue is important to digestion also. It moves your food around the mouth making sure it is mixed with saliva. Taste is detected because of your tongue. Taste is a chemical sense. The bumps on your tongue are called papillae. They contain taste buds. An adult has 10,000 taste buds.
- 7 Foods tasted on the tongue can be grouped into four categories: sweet, sour, salty, and bitter. All the taste buds that detect one taste are in one area of your tongue. The tip of your tongue detects sweet and salty tastes. The sides of your tongue detect sour tastes. The back of your tongue detects bitter tastes. Taste buds respond to the chemicals in your food. They send signals along the nerves to your brain so your body knows what you are eating.
- 8 Your nose has an important job too. It smells the food. Therefore, the flavor of the food is clearer and stronger. That's why, if you have a cold, things might taste strange.
- 9 Your mouth has another important role in digestion as well. It warms or cools food so it is safe to swallow and so the food pipe is not damaged.
- 10 When all these jobs have come together, food is soft. The tongue pushes food into a round lump, called a bolus, out of the mouth and into the esophagus. The esophagus is a tube, which opens into the stomach. The beginning part of the digestive process is voluntary up to this point. The minute the food is at the back of the mouth, though, it is automatic and can't be controlled. As the food enters the esophagus, the next step in digestion begins.

Name _____



Date _____

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1. Digestion starts in the _____ <input type="radio"/> A Esophagus <input type="radio"/> B Nose <input type="radio"/> C Stomach <input type="radio"/> D Mouth	2. When you are chewing, glands make _____ <input type="radio"/> A EGF <input type="radio"/> B Saliva <input type="radio"/> C Teeth <input type="radio"/> D Bolus
3. Which is <u>not</u> a job of saliva? <input type="radio"/> A Chews food <input type="radio"/> B Helps us taste food <input type="radio"/> C Washes away bacteria <input type="radio"/> D Softens and moistens food	4. The bumps on your tongue are called _____ <input type="radio"/> A Gumdrops <input type="radio"/> B Bolus <input type="radio"/> C Papillae <input type="radio"/> D Blisters
5. An adult has _____ taste buds. <input type="radio"/> A 10,000 <input type="radio"/> B 4 <input type="radio"/> C 10 <input type="radio"/> D 1,000	6. Your mouth is able to warm or cool food so it is safe to swallow. <input type="radio"/> A False <input type="radio"/> B True
7. The tongue pushes food into a round lump called a _____ <input type="radio"/> A Papillae <input type="radio"/> B Tube <input type="radio"/> C Bolus <input type="radio"/> D Taste bud	8. Why do you think your mouth could be compared to a workstation in a factory? _____ _____ _____
9. Name your favorite food. Describe what would happen to it as the digestive process begins in the mouth. _____ _____ _____	10. Why might food taste strange if you have a cold? _____ _____ _____