Weekly Question

Day 1

What happens if you swallow gum?

Have you ever been warned not to swallow gum? Maybe you’ve been told that gum sticks to your intestines, or that it takes seven years to digest! These stories about gum are so widespread that they have been discussed in actual science articles. But are they true? No, not really. Gum is made from a chewy, rubber-like material that is largely not digestible. However, gum is able to pass through the body because of the body’s digestive system.

The digestive system is an example of an organ system in which different organs of the body cooperate to perform a function. It is composed of organs such as the esophagus, stomach, and small and large intestines. These organs work together to break down food, absorb nutrients from food, and expel waste.

Use information from the diagram and the passage to answer the questions.

1. Which organ receives food first, the esophagus or the stomach?

2. Which organ is between the stomach and large intestine?

3. What are the three functions of the digestive system?

Vocabulary

digestive system
dy-JESS-tiv
SISS-tum
a group of organs that work together in the body to digest food

esophagus
ih-SAH-fuh-gus
a tube that connects the mouth and the stomach

intestines
in-TESS-tinz
a set of tube-like organs that form part of the digestive track
Your digestive system starts with your mouth. When you chew food, you break it up into smaller pieces. As you chew, your **salivary glands** secrete saliva. Saliva moistens the food, and **enzymes** in the saliva start to break down the food’s nutrients so that your body can absorb them more easily. When you swallow, muscles move the food down your esophagus to your stomach.

However, when you chew on gum, something different happens. Saliva and enzymes break down the sweeteners in the gum, but the rest of the gum stays in one wad. If you happen to swallow it, it will move to the stomach in one piece.

A. Write a caption for the diagram, explaining the role that chewing and saliva play in digestion.

B. Answer the questions.

1. How are enzymes similar to chewing, and how are they different?

2. What are two possible problems with swallowing food before you chew it properly?
   a. 
   b. 

**Vocabulary**

- **enzymes**  
  EN-zymz  
  chemicals that aid reactions in the body
- **salivary glands**  
  SAL-ih-VAIR-ee glands  
  glands that secrete saliva enzymes
What happens if you swallow gum?

After food passes through your esophagus, it enters the stomach. Here, strong muscles that form the stomach wall churn up the food. The stomach secretes acids and enzymes that help further break down the food. However, a wad of gum remains mostly intact. Even so, it doesn’t stay in your stomach for seven years! Usually within hours, the wad of gum gets pushed into the small intestine along with the rest of the stomach contents.

Digestion is completed in the small intestine. The inside of the small intestine is lined with small, finger-like bumps called villi. Nutrients from the digested food are absorbed through the villi and passed into the bloodstream. The blood then carries the nutrients to cells throughout the body.

A. Complete the sentences below, using words from the passage.

1. Enzymes and ______________________ break down food in the stomach.

2. Nutrients enter the bloodstream with the help of ______________________.

3. Digestion is completed in the ______________________.

B. Sometimes when you are ill or eat something spoiled, your brain sends a signal to your stomach to force its contents out of your body. What works in your stomach to make this happen?
Weekly Question

What happens if you swallow gum?

After food is digested in the small intestine, anything left over that can’t be absorbed as nutrients is moved into the large intestine as waste. The main job of the large intestine is to absorb water from the waste, compact the waste, and expel it from your body. This is ultimately what happens to the gum that you swallow. Since it is not digestible, it passes harmlessly out of your body.

The digestive system works with other systems in your body. For example, water absorbed from the large intestine enters the blood and passes through the organs of the excretory (EKS-krih-TOR-ee) system. Kidneys cleanse the blood and remove dissolved waste, which is stored in the bladder until it is excreted as urine.

A. List the three main jobs of the large intestine.

1. 
2. 
3. 

B. Check the box next to the words that complete the analogy.

Intestine is to _____ system as kidney is to _____ system.

☐ circulatory, voluntary 
☐ digestive, nervous 
☐ digestive, excretory 
☐ respiratory, digestive