

Human Physiology Focused on the Gastrointestinal System

Task: Take a look at the picture. Can you name the organs and their functions?

Organs of the Digestive System

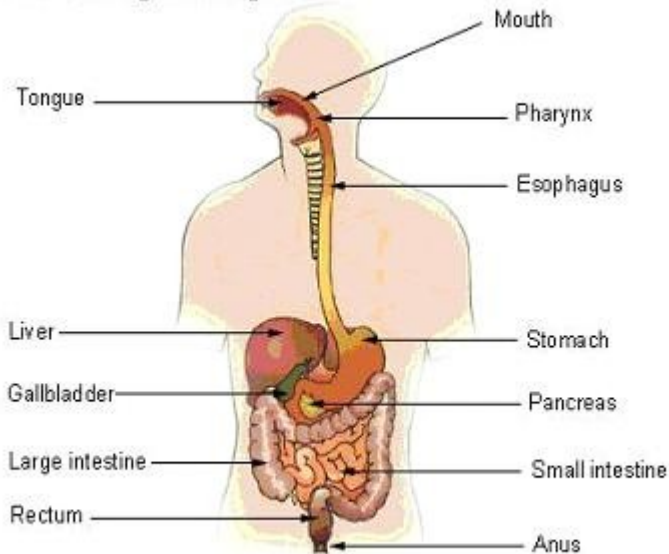


Photo courtesy of Seer's Training Website funded by the U.S. National Cancer Institute's Surveillance, Epidemiology and End Results (SEER) Program.

Vocabulary

Match the words to their definitions:

digestive system	the liquid in the mouth that makes chewed food wet and begins to digest.
nutrients	the system that digests the food and removes it from the body
digestion	a baglike organ with muscular walls
saliva	the tube that carries food and liquids from the mouth to the stomach
enzyme	the changing of food into forms that the body can use/
esophagus	a substance in food that the body uses for energy, for growth and repair, or form working well
large intestine	the organ of the digestive system in which

	most digestion takes place
small intestine	the last organ of the digestive system which removes liquid wastes and stores solid wastes
stomach	a chemical that helps your digestive system change food into nutrients

Video

<http://www.youtube.com/watch?v=Z7xKYNz9AS0>

Task:

Watch the video about the digestive system and fill in the blanks. All the words you need are organs of the digestive system.

Food in the _____ is mixed with saliva. Saliva begins to dissolve the food as the _____ grind and cut it. Food is forced into the _____, farynx by the _____. Food in the _____ stimulates the swallowing reflex. Food goes from the farynx to the _____. The unique muscular structure of the stomach _____ the food into small pieces called chyme. The major portion of absorption and digestion occurs in the _____.

Text

Vocabulary:

Food intolerance - An unpleasant reaction to food

Deficiency - lack

Intake – the amount taken in

Artificial – not natural

Flavor enhancer – substance used to improve the taste of food

What Causes an Unhealthy Digestive System?

An unhealthy digestive system may be caused by:

- Poor diet – A diet that lacks basic nutrients affects the digestive system’s ability to function effectively and can lead to many chronic conditions.
- Overuse of antibiotics – Antibiotics kill the “good” bacteria and the “bad” bacteria, leading to an imbalance in intestinal flora.
- Chronic infections resulting from various organisms, bacteria, fungi, and viruses
- Food intolerances – Lactose and gluten intolerance can irritate the digestive system.
- Stress – Chronic stress and negative thinking can literally “upset” the digestive system. Over time, stress can cause serious damage to the digestive system.
- Heavy metal toxicity – Heavy metals such as mercury cannot be easily processed by the digestive system.
- Lack of proper digestive enzymes – Without the right combination of digestive enzymes, food can’t be broken down efficiently, which leads to vitamin, mineral, and amino acid deficiencies.
- Low hydrochloric acid (HCl) – A low output of HCl (aka hypochlorhydria) leads to bacterial and yeast overgrowth, which worsens many chronic conditions.

What Can You Do to Restore the Digestive System?

Diet. There are many things you can do to support the healthy functioning of your digestive system:

- Fill your diet with nutrient-dense whole foods such as nuts and seeds.
- Increase your intake of saturated fats with extra virgin coconut oil.
- Add high-fiber ingredients such as flax meal to your diet.
- Increase foods that contain omega 3 fatty acids such as wild salmon and walnuts.
- Supplement your diet with quality digestive enzymes.
- Maintain the correct amount of hydrochloric acid (HCl) in your stomach.
- Stop eating two hours before bedtime, so you don't fall asleep on a full stomach.
- Chew your food thoroughly to aid digestion.
- Eat small meals throughout the day, rather than large, heavy meals.
- Drink plenty of water in between meals.

AVOID foods that can irritate the digestive system:

- Alcohol
- Caffeinated beverages such as coffee, tea, and soft drinks
- Dairy products
- Foods that contain gluten
- Foods such as soy milk and ice cream that contain carrageenan (a seaweed extract that's added to foods to retain their creamy texture)
- Refined sugars and artificial sweeteners
- Nitrites found in processed foods such as hot dogs, lunch meats, and bacon
- Monosodium glutamate (MSG) found in many foods as a flavor enhancer
- Deep-fried food, fast food, and junk food

Questions for Discussion

What causes of unhealthy digestion can you name?

What things can help us maintain healthy digestion?

What kinds of food should we avoid to have a healthy digestive system?

Excerpt from WELLNESS PIECE BY PIECE by Pat Sullivan