SECTION 1

READING WARM-UP

Terms to Learn

homeostasis
tissue
epithelial tissue
nervous tissue
muscle tissue
connective tissue
organ

What You'll Do

- Identify the major tissues found in the body.
- Compare an organ with an organ system.
- Describe a major function of each organ system.

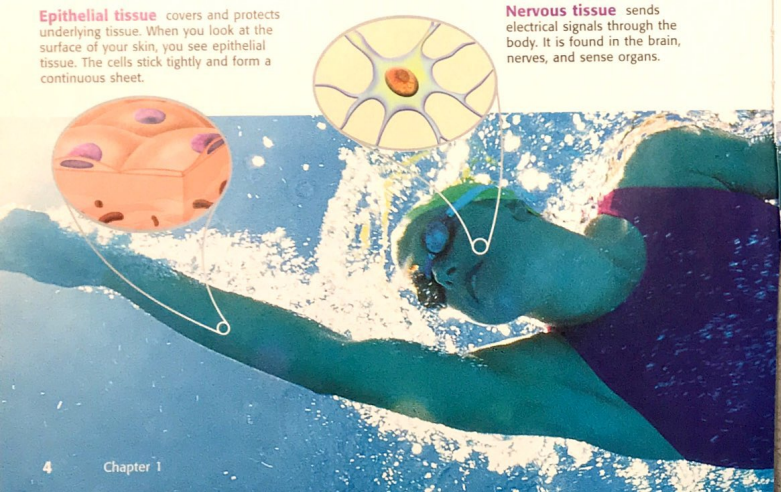
Body Organization

Your body has an amazing ability to survive, even in the face of harsh conditions. How does a person stay alive even though the environment around him or her is so cold? A short answer is that the body did not allow its internal conditions to change enough to stop the cells from working properly. The maintenance of a stable internal environment is called **homeostasis** (HOH mee OH STAY sis). If homeostasis is disrupted, cells suffer and sometimes die.

Four Types of Tissue

Making sure your internal environment remains stable enough to support healthy cells is not an easy task. Many different "jobs" must be done to maintain homeostasis. Fortunately, not every cell has to do all those jobs because the cells are organized into different teams. Just as each member of a soccer team has a special role in the game, each cell in your body has a specific job in maintaining homeostasis. A group of similar cells working together forms a **tissue**. Your body contains four main types of tissue—epithelial tissue, connective tissue, muscle tissue, and nervous tissue, as shown in **Figure 1**.

Figure 1 *Your body has four types of tissue, and each type has a special function in your body.*



Tissues Form Organs

Two or more tissues working together form an **organ**. One type of tissue alone cannot do all the things that several types working together can do. Your stomach, as shown in **Figure 2**, uses several different types of tissue to carry out digestion.

Organs Form Systems

Your stomach does much to help you digest your food, but it doesn't do it all. It works together with other organs, such as the small intestine and large intestine, to digest your food. Organs working together make up an *organ system*. The failure of any part can affect the entire system. Your body has 11 major organ systems, which are illustrated on the next two pages. Are there any that you have not heard of before?

The Stomach Is an Organ

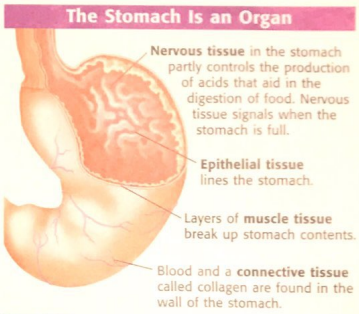


Figure 2 *The four types of tissue work together so that the stomach can carry out digestion.*