Body Organization

By Jennifer Kenny

[1] Your body is like a complex machine. It takes a lot to keep it working properly. It must keep your internal environment stable to support healthy cells. **Homeostasis** refers to the maintenance of a stable internal environment.

[2] In order to successfully complete all the jobs necessary to maintain stability, cells are organized into different groups. **Cells** are the basic unit of all living things. Similar cells grouped together make a **tissue**. There are four main groups of tissue - epithelial tissue, nervous tissue, muscle tissue, and connective tissue. Epithelial tissue protects underlying tissue. Nervous tissue sends electrical signals. Muscle tissue helps produce movement. Connective tissue joins, protects, and cushions organs.

[3] Tissues work together to form **organs**. For example, the stomach is an organ that contains all four types of tissue in order to work. The nervous tissue in the stomach signals when your stomach is full. The epithelial tissue is part of the stomach lining. The muscle tissue helps to break up the contents of the stomach. The connective tissue is in the stomach wall. Other organs in the body include the heart and lungs.

[4] Now the organization of the body doesn't stop here. Organs working together make up a **system**. There are 11 systems in the human body - integumentary system, muscular system, skeletal system, circulatory (or cardiovascular) system, respiratory system, excretory (or urinary) system, reproductive system, nervous system, lymphatic system, digestive system, and endocrine system. Each system has a special job. For example, in the muscular system, your muscles move your bones. In the nervous system, the role is to send and receive electrical messages. These special functions help maintain the overall functioning of the body.

Name _____ Science Pd: _____

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1. Electrical signals are sent through the body by the _____ tissue.
   - (A) Muscle
   - (B) Nervous
   - (C) Epithelial
   - (D) Connective

2. Which kind of tissue can contract and relax?
   - (A) Muscle
   - (B) Connective
   - (C) Nervous
   - (D) Epithelial

3. Your body has _____ main types of tissue.
   - (A) 5
   - (B) 2
   - (C) 3
   - (D) 4

4. A cell is a group of tissues that work together.
   - (A) False
   - (B) True

5. _____ is the body's ability to maintain a stable internal environment.
   - (A) System
   - (B) Connective tissue
   - (C) Body organization
   - (D) Homeostasis

6. I am one of the four, main types of tissue. I support, protect, and nourish organs. What kind of tissue am I?
   - (A) Nervous tissue
   - (B) Muscle tissue
   - (C) Connective tissue
   - (D) Epithelial tissue

7. Which system of the body moves your bones?
   - (A) Integumentary system
   - (B) Endocrine system
   - (C) Respiratory system
   - (D) Muscular system