

Name: _____



10 Minutes with Science

The Bones

Our bones are a marvel of design, they are firm organs and very strong, although they are very light. The bone is composed of bone tissue, a specialized type of connective tissue made up of cells called 'osteocytes'.

The surface of bones is covered with a fibrous membrane called periosteum. At joints, where bones join to other bones, they are covered with a cartilage tissue. The bone is a living organ that has blood vessels and nerves.

The chemical composition of most bones is 25% water, 45% minerals such as calcium and phosphorus, and 30% organic matter, mainly a protein called collagen.

Bones are organs with the capacity to regenerate. Bones, minerals, and proteins are constantly replaced in a process known as 'bone remodeling'.



The adult human skeleton has approximately 206 bones. In addition, there are bones that are not in the skeleton, such as the small bones of the ear.

Bones protect your vital organs from trauma. For example, the skull bones protect the brain from possible blows, and the ribcage, or rib bones, which are seen in the image on the left; protect the lungs and the heart. In addition, the bones of the skeleton form a base that supports all other organs, tendons, and muscles; allowing movement.

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ANSWER THE QUESTIONS

1. What are bone cells called?
 - a. Periostitis
 - b. Collagen
 - c. Osteocytes
 - d. Bones don't have cells
2. What is the composition of the bone?
 - a. Water
 - b. Calcium and other minerals
 - c. Collagen and other proteins
 - d. All of the above answers are correct.
3. What is one of the functions of the bones?
 - a. Protecting vital organs
 - b. Cleaning blood vessels
 - c. Assisting in the digestion of food
 - d. All of the above answers are incorrect.
4. The bone is a living organ that has blood vessels and nerves, and it regenerates.
 - a. True
 - b. False
5. How many bones does the skeleton of an adult human have?
 - a. 200
 - b. 206
 - c. 210
 - d. 216

