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Science Shorts

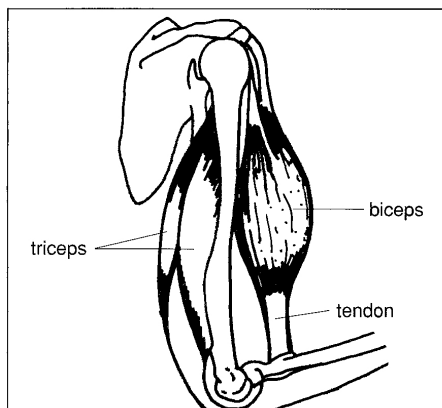
The Muscular System

Now that you have an understanding of the skeletal system, we need to figure out how it moves. The muscular system is in charge of moving your body. It has two basic functions and two important parts.

The first part of the muscular system is the muscles. Muscles are organs. Organs are groups of cells and tissues that are working together. There are more than 650 muscles in your body. Most of these muscles you can control but there are some muscles that you have no control over.

Muscles are classified into two basic groups in your body: the voluntary and involuntary muscles. Voluntary muscles help you do things that you want to do such as walking around, sitting down, jumping, running . . . the list could go on for a long time. There are other things that you have to do all the time and your involuntary muscles do them for you. You would not be alive for long if you did not breathe and if your heart did not keep pumping. You do not even have to think doing these things thanks to your involuntary muscles.

Muscles need to be attached to the bones to get them moving. Each muscle is attached to the bones at two ends. At one end of the muscle, the attachment is firm; it does not move. At the other end of the muscle the attachment can move. At that end, the muscle is attached with a tendon. The tendon is the second part of the muscular system. It is not an organ. A tendon is a tissue that connects the muscle to the bone. Have you ever heard of anyone having a sprain? A sprain is a tendon or muscle that has been stretched too much.



One of the functions of the muscular system is to give the body extra strength. The skeletal system provides the basic framework such as the height of your body or the length of your arms. The muscular system gives the final shape of your body.

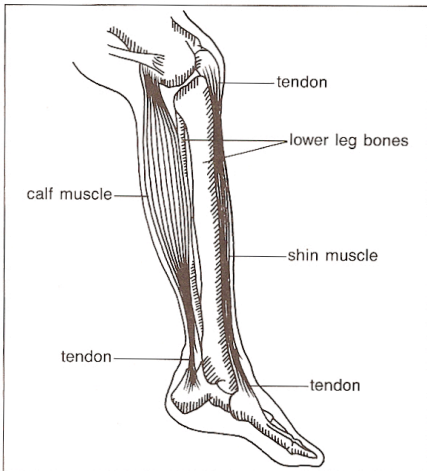
Another function of the muscular system is to get your body moving. To do this the muscles must work in pairs. One contracts while the other muscle relaxes. Your muscles are controlled by your brain through a network of nerves.

muscles of the arm. Muscles must

work together in pairs to move the bones.

1. Name the muscles that bend the arm.

2. Most muscles are attached to bones by a special tissue. What is the name of this tissue? _____



4. Name the muscles that move the ankle.

5. How are they connected to the bones?

Figure D

6. How many muscles are there in the human body? _____

7. What are the two functions of the muscular system?

8. What are the two parts that make up the muscular system?

9. What are the two basic groups of muscles? _____

10. What do voluntary muscles help you do? _____

11. What do involuntary muscles help you do? _____