

Name: \_\_\_\_\_



# 10 Minutes with Science

## The Muscles



Our muscle system is composed of about 650 muscles, which allow our body to do its internal functions, move, and stay firm; in addition, the muscles shape our body.

There are three groups of muscles: striated, smooth, and cardiac depending on where they are located in the body.

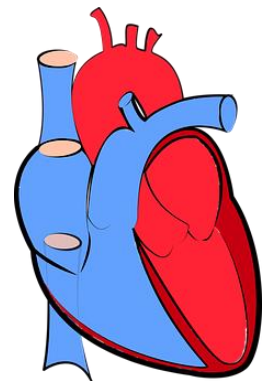
The striated muscles (or skeletal) are responsible for the movement of the skeleton, the eyeball, and the oral system. The movements of these muscles are voluntary, that is, we have some control over them. For example, when we walk, we move more than 200 muscles.

However, we have no control over the second type of muscles: smooth muscles, also known as involuntary. These muscles are controlled by the autonomic nervous system. For example, there are smooth muscles in the reproductive system, blood vessels, skin and internal organs.

The third type are cardiac muscles, which are only found in the heart. Its role is to pump blood through the circulatory system. This muscle contracts about a hundred thousand times a day.

The longest muscle in our body is the 'sartorius,' which goes from the pelvis to below the knee, exceeding forty centimeters in length. And the smallest muscle is in the middle ear, attached to the tiny bone and is called 'stapedius'. Its length is less than one millimeter.

Our fastest muscle is the one that closes the eyelid. It can contract at a rate of almost five times per second. The strongest muscle is the 'masseter' and is responsible for moving the jaw during chewing; this muscle can close with a force equivalent to one hundred kilograms. We have a wonderful body!



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## ANSWER THE QUESTIONS

1. What distinguishes the striated muscles?
  - a. They are the smallest muscles
  - b. We have no control over them
  - c. We have some control over them
  - d. These are the muscles that work hardest
2. How many muscles do we move when we walk?
  - a. About 650 muscles
  - b. More than 200 muscles
  - c. About a hundred thousand muscles
  - d. None of the above answers are correct
3. In which of these organs are the cardiac muscles?
  - a. The blood vessels
  - b. The mouth
  - c. The skin
  - d. The heart
4. The heart muscle contracts about 100,000 times a day.
  - a. True
  - b. False
5. How fast does the fastest muscle work in our body?
  - a. It contracts about a hundred thousand times a day
  - b. It contracts equivalent to a hundred kilograms
  - c. It can be contracted about five times per second
  - d. It can contract to forty centimeters

