

# Muscular system

Muscles are tissues that contract, and the human body has almost seven hundred of them, which are divided into three kinds. **Skeletal muscles** are responsible for the voluntary movement of the bones. **Smooth muscles** are involuntary; they include blood vessels, arteries and the lungs. There is only one cardiac muscle - the heart.

The term muscular system is used only for the skeletal muscles, which are the long fibrous fibres arranged in parallel bundles that you see in arms, legs, torso, neck, and face much of their shape. The large part of the muscle is called the belly. The ends of the skeletal muscles are attached by ligaments to two different bones, only one of which moves when the muscle contracts. The joints where the muscle meets the bone that doesn't move. The origin is always closer to the torso than the insertion, where the muscle meets the bone that does move. Muscles that bend joints and pull limbs toward the body are called flexors; muscles that straighten joints are extensors.

**Movement usually involves the coordinated action of several muscles.** The muscle that initiates the action is the agonist or prime mover. As the agonist contracts, another muscle, the antagonist, relaxes or yields to it. Other muscles synergist or fixators help the prime mover by dispersing unwanted movement or holding a limb or joint steady during the action.

Read the text about the muscular system and answer these questions

1. What are muscles?
2. How can they be classified?
3. What are skeletal muscles responsible for?
4. Are smooth muscles voluntary? Where are they?
5. Where are cardiac muscles to found?
6. Is the term "muscular system" used for all kind of muscles?
7. Where are you find skeletal muscles?
8. Describe skeletal muscles.
9. Name the three parts of skeletal muscles and explain.
  10. What are "Tendons"?
  11. What are "aponeuroses"?
  12. What is the "origin" or "prime mover"?
  13. What is the "antagonist"?