

Anatomy & Physiology: THE MUSCULAR SYSTEM



► The **muscular system** moves the body, circulates blood, and moves other substances through the body.

TERMS

actin (thin filament): a protein that makes up the muscle and works with myosin to move it

cardiac muscles: involuntary muscles found only in the heart

contract: when the muscle receives a signal from a motor neuron, the actin and myosin slide past each other to shorten (contract) the muscle

myofibrils: muscle fibers

myosin (thick filament): a protein that makes up the muscle and works with actin to move it

muscles: move the body, support bodily functions, and circulate blood

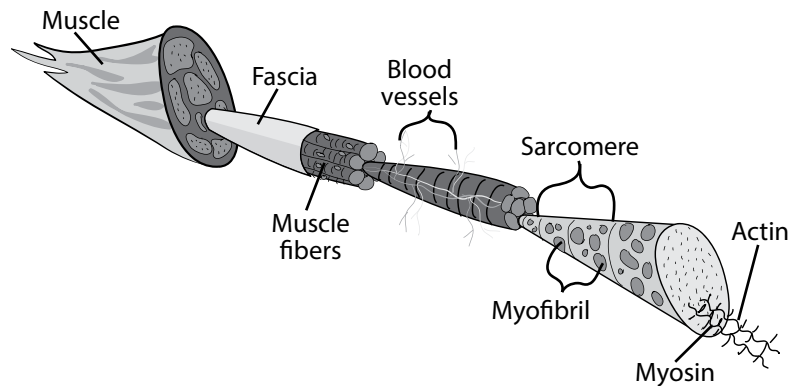
relax: when the actin and myosin return to their resting position after contracting, the muscle is relaxed

sarcomeres: building blocks of muscle fibers; consist of actin and myosin

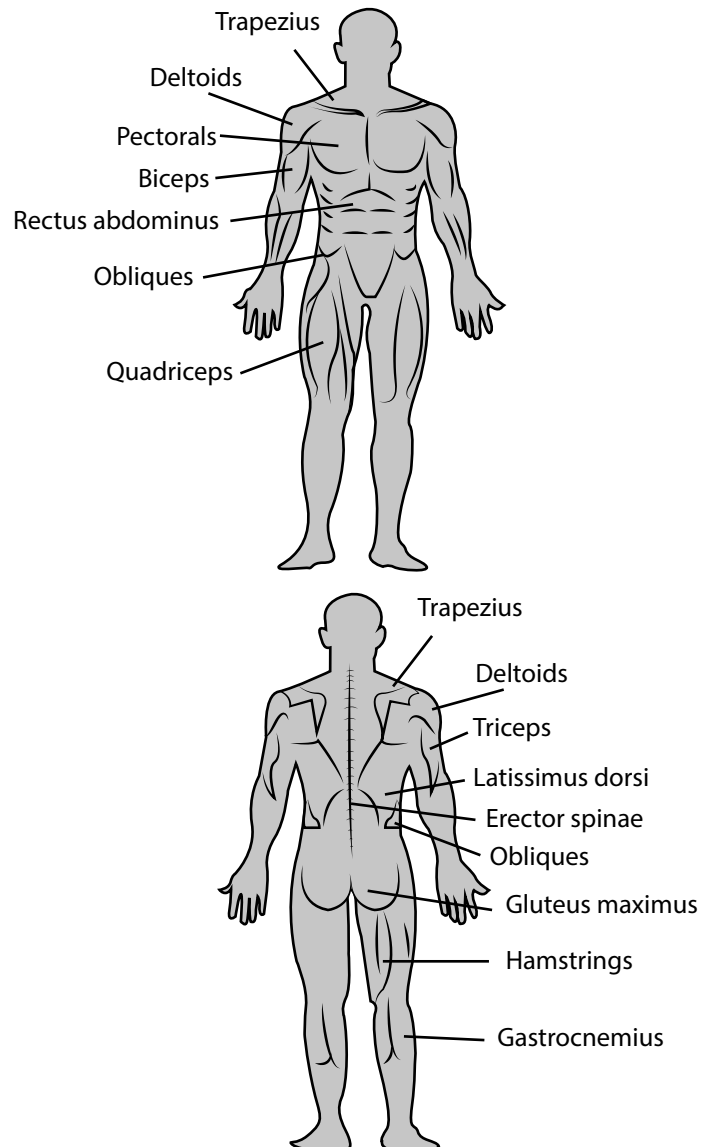
skeletal muscles: voluntarily controlled; attach to the skeleton to allow movement in the body

smooth muscles: involuntary; found in organs and structures like the esophagus, bronchi, and blood vessels

STRUCTURE OF SKELETAL MUSCLE



MAJOR MUSCLES OF THE HUMAN BODY



ACTIN AND MYOSIN

