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

**Actin and Myosin**

**Structure of Skeletal Muscle**

**Major Muscles of the Human Body**