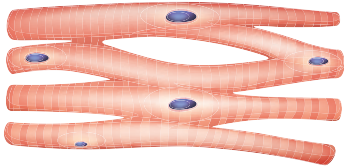


Human Body: Muscular System

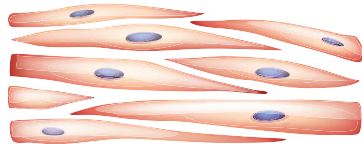
Muscles are found throughout the body. The 3 types of muscle tissue are skeletal muscle, cardiac muscle, and smooth muscle. Muscles allow the body to do everything from walking, to pumping blood, to churning food in the stomach.

Types of Muscle Cells

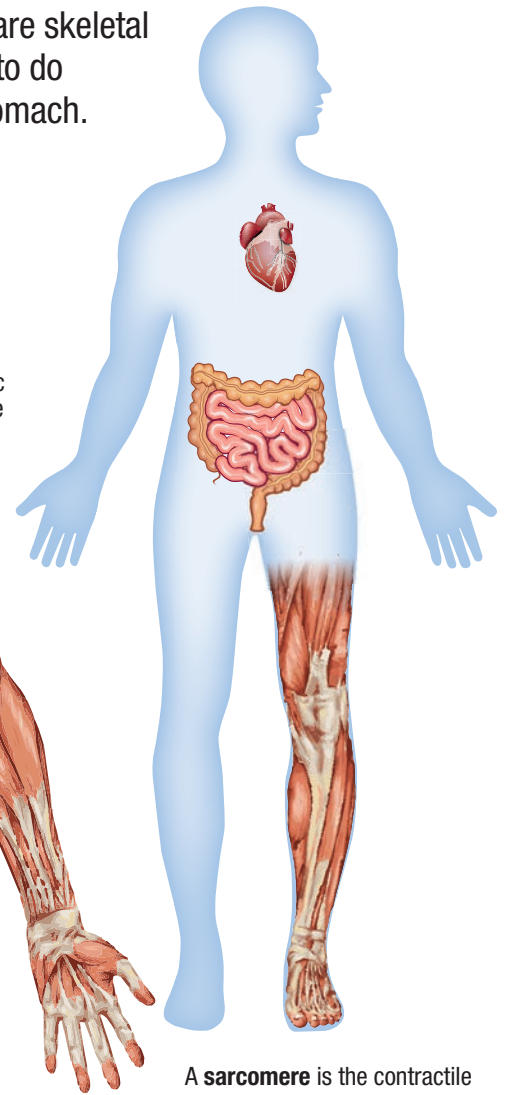
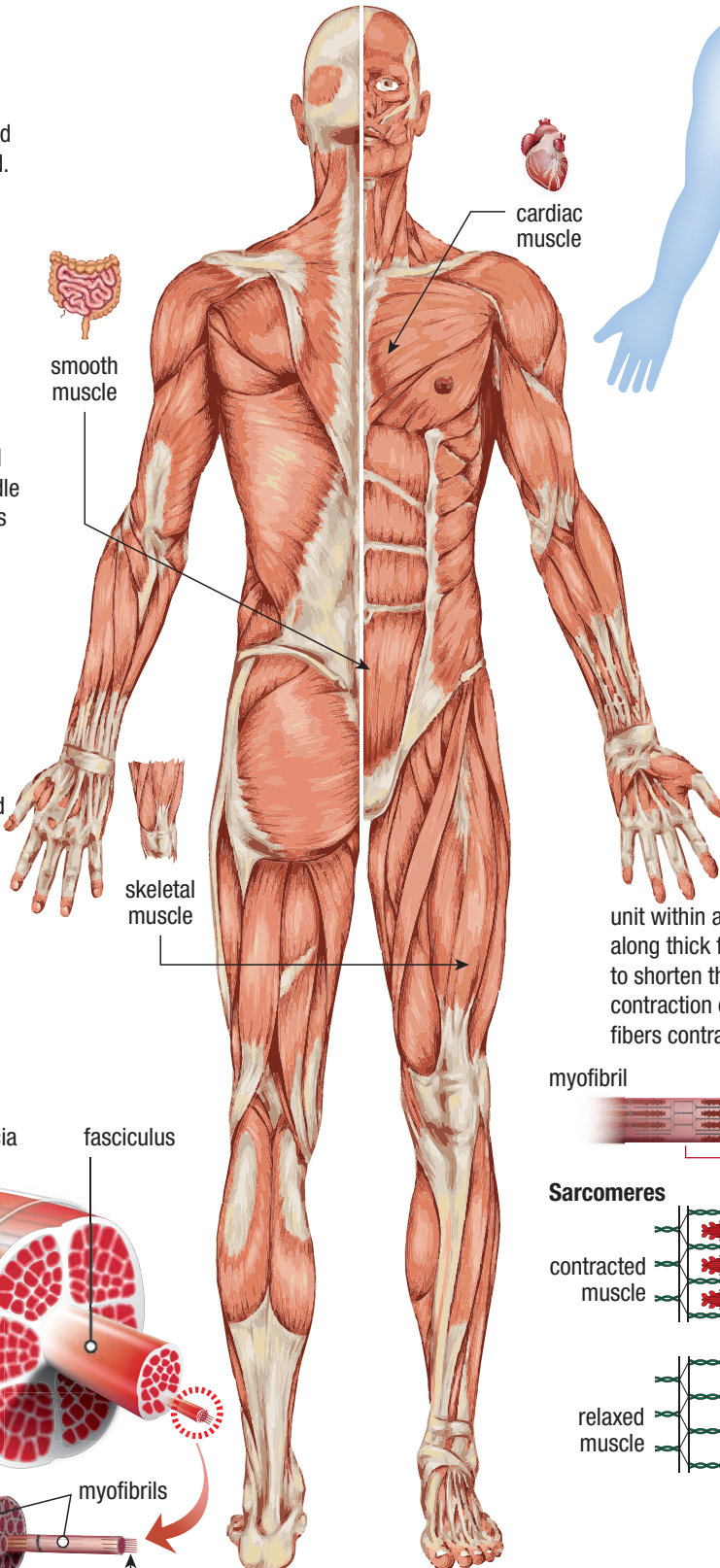
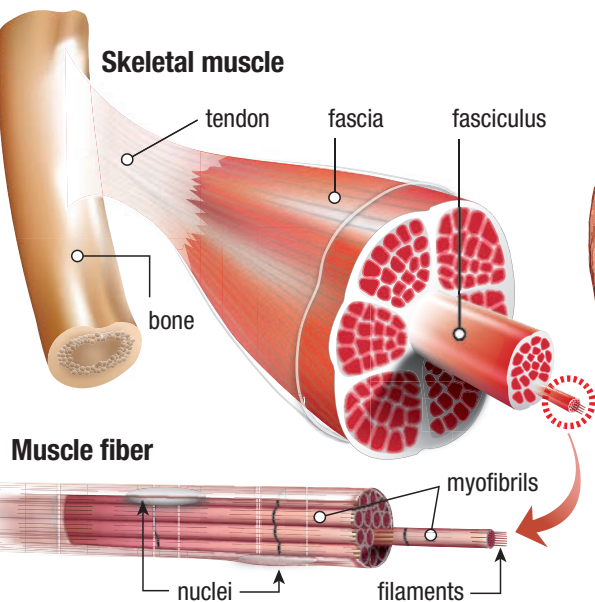
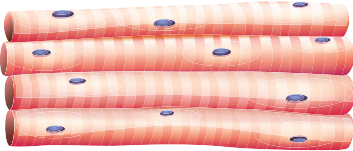
Cardiac muscle is an involuntary tissue located in the heart. Cardiac muscle contains intercalated discs, and the cells appear branched and striated. Each cell contains a single nucleus.



Smooth muscle is an involuntary tissue found in the walls of organs like the stomach, intestines, and blood vessels. The cells are wide in the middle and narrow on the ends. Each contains a single nucleus.



Skeletal muscle is a voluntary tissue and is commonly found attached to bone by tendons. The cells are striated and each contains multiple nuclei.



A **sarcomere** is the contractile unit within a muscle. Thin filaments are pulled along thick filaments toward the midline (M-line) to shorten the muscle fiber, resulting in a contraction of the fiber. When multiple muscle fibers contract, the entire muscle shortens.

