

ILOS:

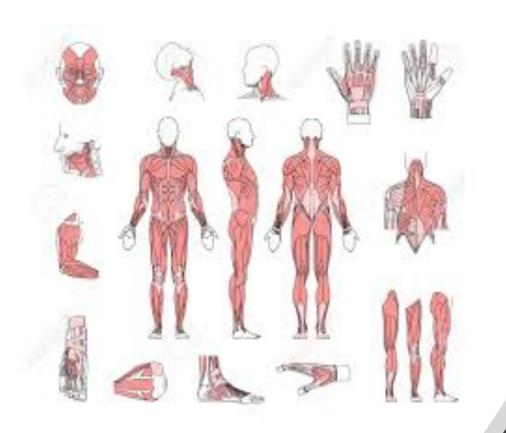
List function of Muscle

Illustrate the types of muscles

Describe skeletal muscle

Describe smooth muscle

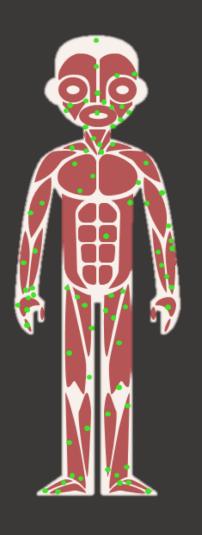
Describe cardiac muscle



Introduction:

About half of your body's weight is muscle the human body have about 600 muscles. In the muscular system, muscle tissue is categorized into three distinct types: skeletal, cardiac, and smooth. Each type of muscle tissue in the human body has a unique structure and a specific role.

Functions of muscles:



Mobility

Stability

Posture

Circulation

Respiration

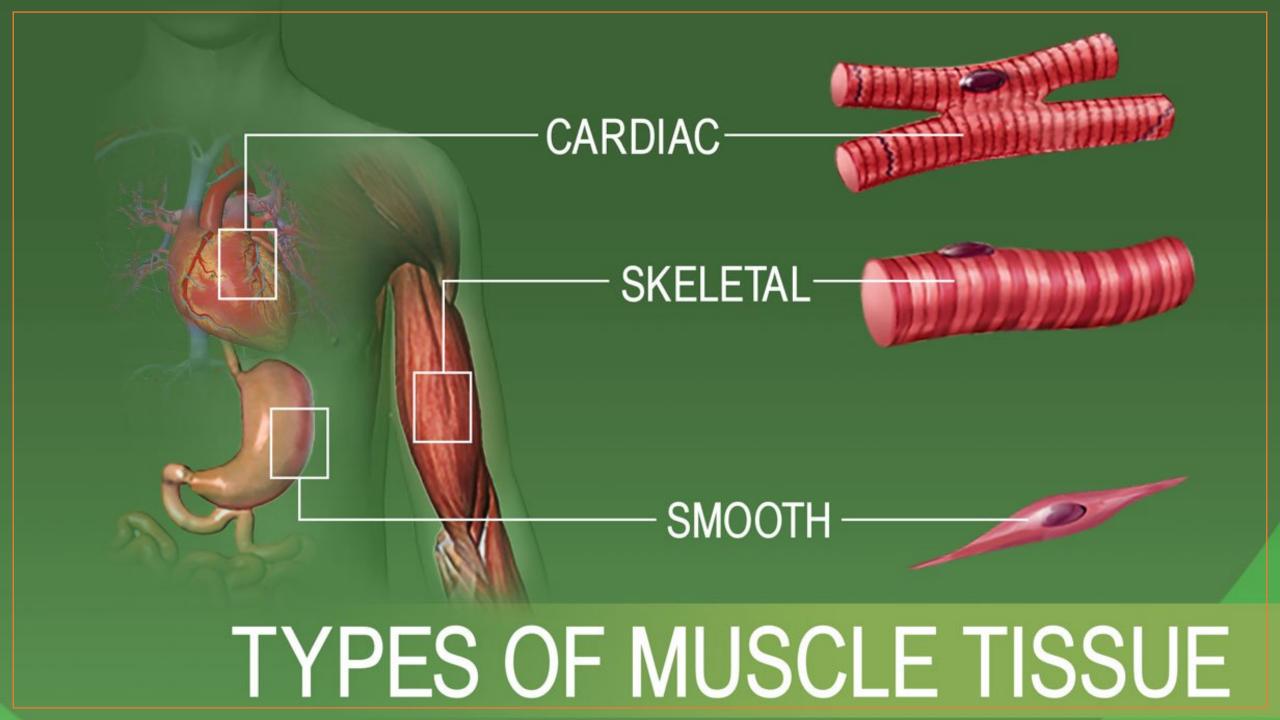
Urination

Childbirth

Vision

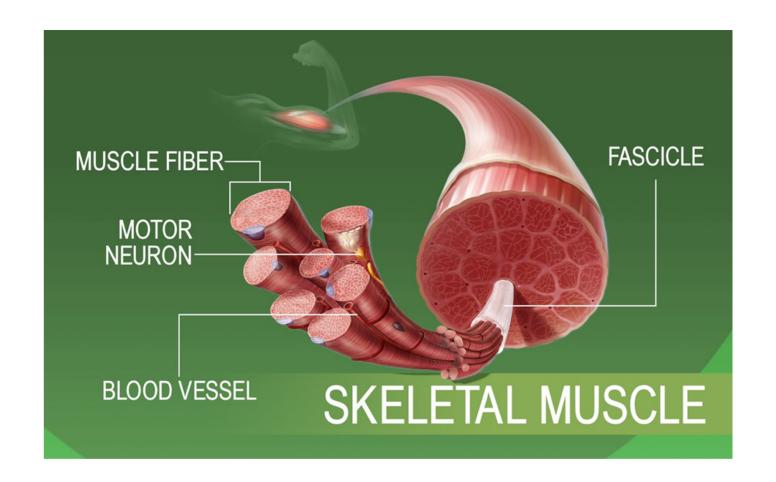
Organ protection

Temperature regulation



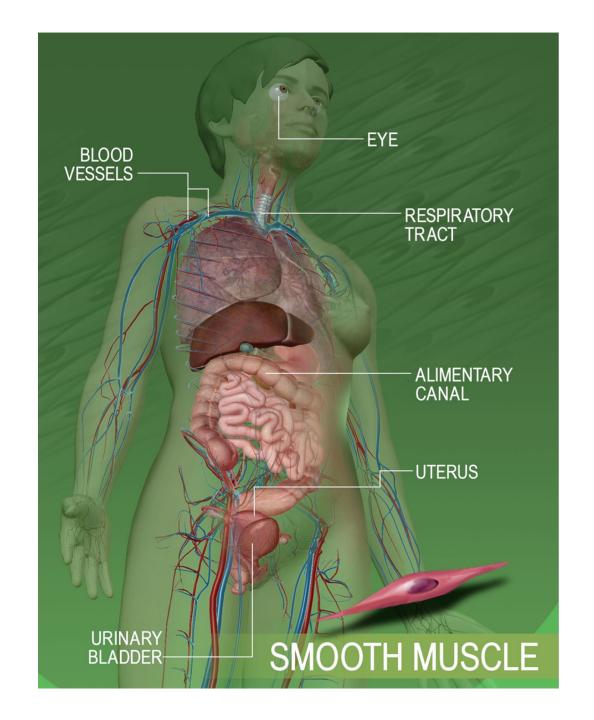
Skeletal muscle:

Attach to and move bones by contracting and relaxing in response to voluntary messages from the nervous system. Skeletal muscle tissue is composed of long cells called muscle fibers that have a striated appearance. Muscle fibers are organized into bundles supplied by blood vessels and innervated by motor neurons.



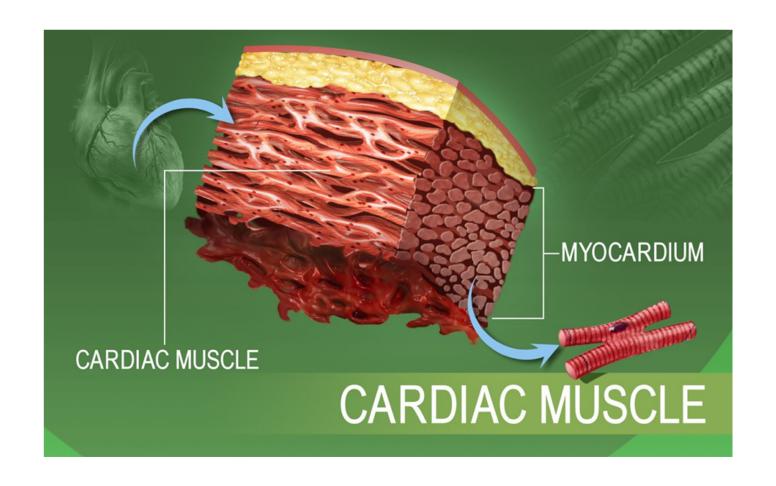
Smooth muscle:

is found in the walls of hollow organs throughout the body. Smooth muscle contractions are involuntary movements triggered by impulses that travel through the autonomic nervous system to the smooth muscle tissue. The arrangement of cells within smooth muscle tissue allows for contraction and relaxation with great elasticity. The smooth muscle in the walls of organs like the urinary bladder and the uterus allow those organs to expand and relax as needed. The smooth muscle of the alimentary canal (the digestive tract) facilitates the peristaltic waves that move swallowed food and nutrients. Artery walls include smooth muscle that relaxes and contracts to move blood through the body.



Cardiac muscle:

The heart wall is composed of three layers. The middle layer, the myocardium, is responsible for the heart's pumping action. Cardiac muscle, found only in the myocardium, contracts in response to signals from the cardiac conduction system to make the heartbeat. Cardiac muscle is made from cells called cardiocytes. Like skeletal muscle cells cardiocytes have a striated appearance, but their overall structure is shorter and thicker. Cardiocytes are branched, allowing them to connect with several other cardiocytes, forming a network that facilitates coordinated contraction.



References:

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