

# Muscle Tissue Definition

Muscle tissue is a specialized tissue found in animals which functions by contracting, thereby applying forces to different parts of the body. Muscle tissue consists of fibers of muscle cells connected together in sheets and fibers. Together these sheets and fibers are known as muscles, and control the movements of an organism as well as many other contractile functions. There are three different types of muscle found in animals, depending on their use. While these muscles differ slightly, they function in a similar way.

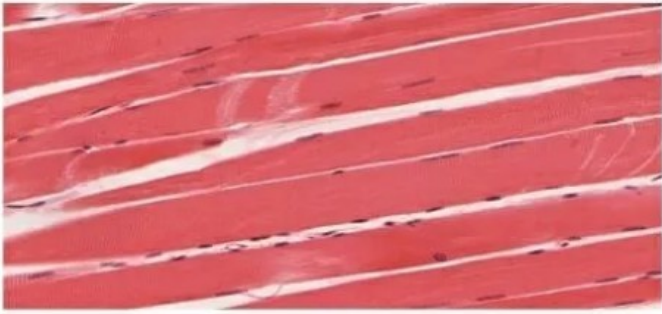
# Types of Muscle Tissue

## Skeletal Muscle Tissue

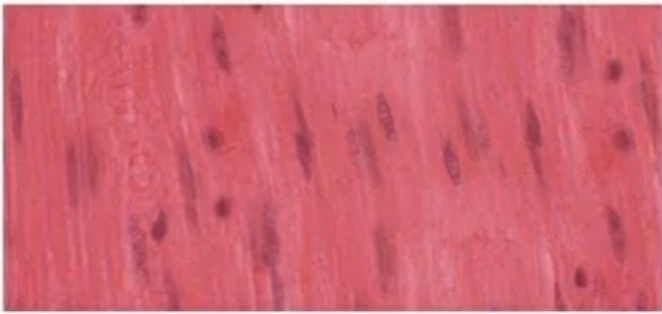
Skeletal muscle tissue is a type of striated muscle, meaning clear bands can be seen in it under a microscope. This can be seen in image (a) below. These tiny light and dark bands are *sarcomeres*, highly organized bundles of actin, myosin, and associated proteins. These organized bundles allow striated muscle to contract quickly and release quickly. Muscle tissue is attached to the bones through *tendons*, which are highly elastic portions of connective tissue. Many muscles may seem to control a single appendage, but in reality each one only controls one small aspect of movement. Skeletal muscle tissue can be controlled voluntarily, by the somatic nervous system. The other types of muscle are controlled mainly by the involuntary or *autonomous nervous system*.



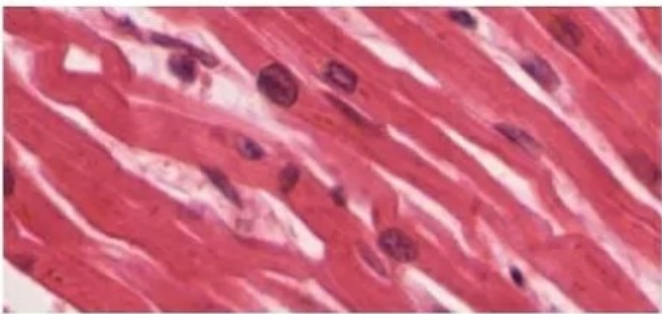
Unlike cardiac and skeletal muscle tissue, [smooth muscle](#) tissue has no striations. The fibers of myosin and actin in smooth muscle fiber is not nearly as organized as in the other types of muscle tissue. In smooth muscle, the contractions are not quick and rapid but rather smooth and continuous. Smooth muscle is found surrounding many organs, blood vessels, and other vessels used for transporting fluids. The smooth muscle can contract to apply a force on [organ](#). This can be used to move blood or food throughout their respective systems. Smooth muscle is recognizable from its lack of striations and unbranching nature in image (b) below.



(a)



(b)



(c)

