

Module 3: High-Performance Machinery

Topic 2 Content: Types of Muscle and Connective Tissue

Introduction


Types of Muscle and Connective Tissue

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There are three types of muscles in your body, along with two types of connective tissue.

Click on the arrows to learn more about these muscles and tissues and to see an example of each. Feel free to click on the magnifying glass to enlarge the example image.

The arrows point to particular examples of muscles and connective tissue, although there are muscles and connective tissue throughout your body.



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Cardiac Muscle

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Cardiac Muscle

Cardiac muscle is a special muscle that makes up the walls of the heart. It is special because the muscle fibers contract rhythmically all day every day, and we do not even need to think about it. Muscles that function on their own without conscious effort are called involuntary muscles.

*Image source:
Mikael Häggström*



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Smooth Muscle


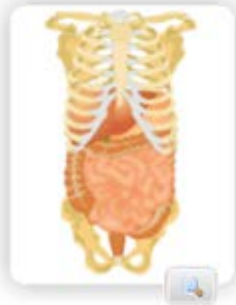
Types of Muscle and Connective Tissue

Smooth Muscle

Smooth muscles are also involuntary muscles. Smooth muscles make up the rest of the internal organs like the stomach, blood vessels, bronchi, and bladder. The actions of these muscles work on their own just like the cardiac muscle.

The intestines, shown here, are also made of smooth muscles.

*Image source:
Cristobal carrasco*



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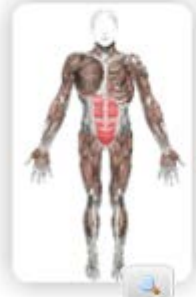
Skeletal Muscle

Types of Muscle and Connective Tissue

Skeletal Muscle

Skeletal muscle attaches to bone and creates movement. Skeletal muscle is much different than the other two muscle types in that it looks striped and you control the movement by contracting and relaxing. In other words, the muscle is voluntary. Skeletal muscle is found all over your body.

*Image source:
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Connective Tissue



Types of Muscle and Connective Tissue

Connective Tissue

Tendons and ligaments are strong fibrous tissue that resemble muscle, but are stronger and less elastic. They are a source of connectivity between bone and muscle, and between bone and bone. Tendons connect muscle to bone, while ligaments connect bone to bone within a joint. Both are present all over your body.

Notice the tendons and ligaments shown in the image of the sole of a foot.

*Image source:
Gray's Anatomy*



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