# ATI TEAS Science Review

## Muscular System

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#### Watch this youtube video first:

Skeletal Muscle Contraction -The Sliding Filament Mechanism by Dissection of Science https://www.youtube.com/watch?v=c\_ICvEJ4NBM

This video will help you visualize how a muscle contracts and will help you understand the following terminology

#### **Function**: movement

Myosin: the thick filaments that form the contractile filaments of muscle cells Actin: The thin filaments that work with myosin that form the contractile filaments of muscle cells Sarcomere: Myofibril containing myosin and actin

#### **Three types of muscles:**

Smooth Muscle: Involuntary muscle that is not striated, is spindle-shaped, *uninucleated* fibers. Usually found in the walls of internal organs. ex: Stomach, lung, intestines

Skeletal Muscle: Voluntary muscle that is striated, tubular, *multinucleated* fibers, and is usually attached to the skeleton. ex: Biceps, triceps, gluteus maximus

Cardiac Muscle: Involuntary muscle that is striated, branched, *uninucleated* fibers. They are found in the walls of the heart.

#### **<u>Three types of muscles:</u>**

Smooth Muscle: Involuntary muscle, not striated. ex: Stomach, lung, intestines

Striated Muscle: Voluntary muscle; striated. ex: Biceps, triceps, gluteus maximus

Cardiac Muscle: Involuntary muscle; striated. ex: Heart



#### Muscular Diseases and Disorders:

<u>Amyotrophic lateral sclerosis (ALS)</u>: A progressive neurodegenerative disease that affects nerve cells in the body. It affects the muscles and movements. Currently no cure.

**<u>Charcot-Marie-Tooth Disease</u>**: An inherited disorder that causes nerve damage. The peripheral limbs is mostly affected (arms and legs). Results with smaller and weaker muscles.

<u>Multiple Sclerosis (MS)</u>: A disease where the immune system attacks the myelin sheath of nerve fibers which causes communication problems between the brain and the rest of the body.

**Muscular Dystrophy:** An inherited disease that damages and weakens muscles over time.

**Duchenne Muscular Dystrophy:** Usually occurs in young boys. The life expectancy of a child with Duchenne is usually late teens of early 20s.

**Myesthenia Gravis:** A neuromuscular disorder that causes weakness in the skeletal muscles.



### About Me

Hi there! My name is Ivy and I am the founder of Petite and Soignée. I am currently a licensed physical therapist assistant, dermatology and cosmetic medical assistant, and a nursing student in an accelerated BSN program. Over the years, I have researched and learned about different skincare products, ingredients, skin conditions, diseases, and new technologies and procedures within the field. I decided to join a dermatology practice so that I could learn more about skincare within a clinical setting. This position taught me so much about the science of skin that it led me to pursue nursing. My goal is to specialize in dermatology in the future.

You may be wondering what does *soignée* even mean? *Soignée* (pronounced "swan-yay") is a feminine French word meaning *"to dress elegantly", "well-groomed", "sleek" "well maintained" or "elegantly designed".* The word perfectly describes the way that I like to present myself on a daily basis. On my website, I share all of my skincare and beauty tips for everyone to feel soignée.

Don't forget to follow my other social media accounts!



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