

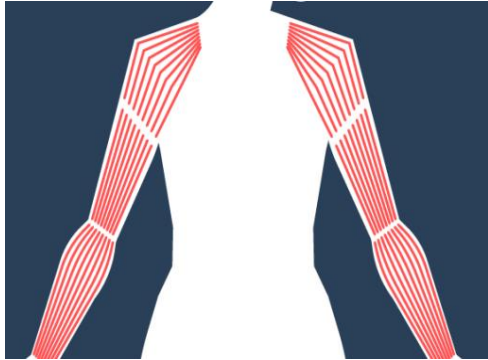
# PHYSICAL EDUCATION

## TOPIC: The Muscular System

### What are some functions of the muscular system?

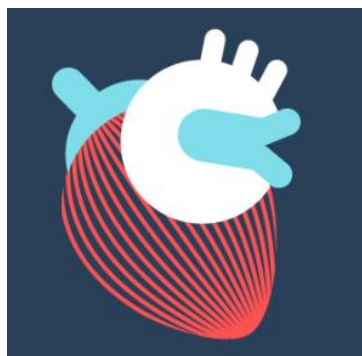
Muscles play a part in every function of the body. The muscular system is made up of over 600 muscles. These include three muscle types: smooth, skeletal, and cardiac. Only skeletal muscles are voluntary, meaning you can control them consciously. Smooth and cardiac muscles act involuntarily. Each muscle type in the muscular system has a specific purpose. You're able to walk because of your skeletal muscles. You can digest because of your smooth muscles. And your heart beats because of your cardiac muscle. The different muscle types also work together to make these functions possible. For instance, when you run (skeletal muscles), your heart pumps harder (cardiac muscle), and causes you to breathe heavier (smooth muscles).

### Mobility



Your skeletal muscles are responsible for the movements you make. Skeletal muscles are attached to your bones and partly controlled by the central nervous system (CNS). You use your skeletal muscles whenever you move. Fast-twitch skeletal muscles cause short bursts of speed and strength. Slow-twitch muscles function better for longer movements.

### Circulation



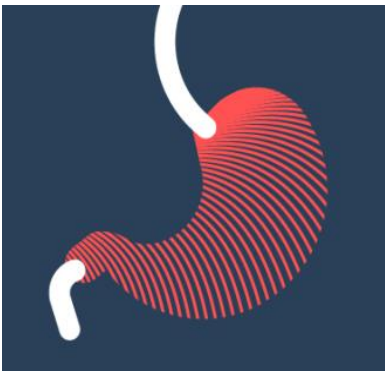
The involuntary cardiac and smooth muscles help your heartbeat and blood flow through your body by producing electrical impulses. The cardiac muscle (myocardium) is found in the walls of the heart. It's controlled by the autonomic nervous system responsible for most bodily functions. Your blood vessels are made up of smooth muscles, and also controlled by the autonomic nervous system.

## Respiration



Your diaphragm is the main muscle at work during quiet breathing. Heavier breathing, like what you experience during exercise, may require accessory muscles to help the diaphragm. These can include the abdominal, neck, and back muscles.

## Digestion

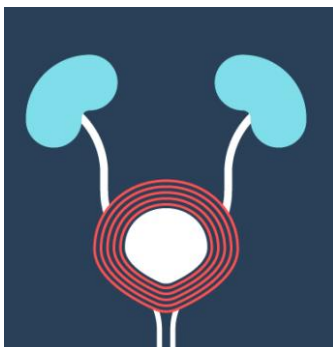


Digestion is controlled by smooth muscles found in your gastrointestinal tract. This comprises the:

- mouth
- esophagus
- stomach
- small and large intestines
- rectum
- anus

The digestive system also includes the liver, pancreas, and gallbladder. Your smooth muscles contract and relax as food passes through your body during digestion. These muscles also help push food out of your body through defecation or vomiting when you are sick.

## Urination

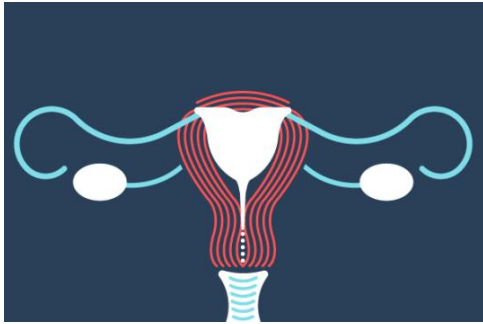


Smooth and skeletal muscles make up the urinary system. The urinary system includes the:

- kidneys
- bladder
- ureters
- urethra
- penis or vagina
- prostate

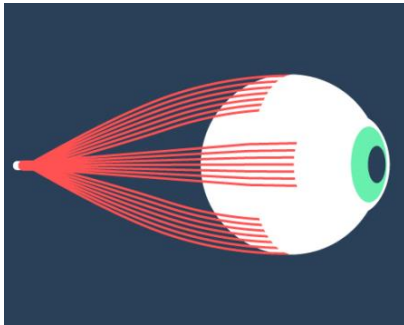
All the muscles in your urinary system work together so you can urinate. The dome of your bladder is made of smooth muscles. You can release urine when those muscles tighten. When they relax, you can hold in your urine.

### Childbirth



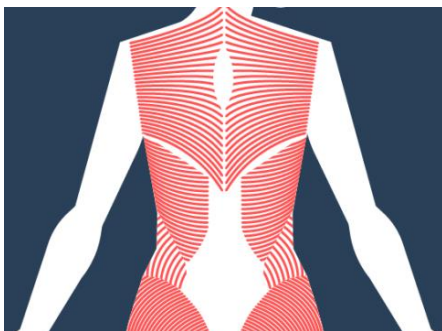
Smooth muscles are found in the uterus. During pregnancy, these muscles grow and stretch as the baby grows. When a woman goes into labour, the smooth muscles of the uterus contract and relax to help push the baby through the vagina.

### Vision



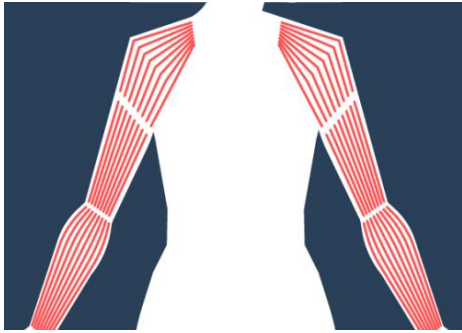
Your eye sockets are made up of six skeletal muscles that help you move your eyes. And the internal muscles of your eyes are made up of smooth muscles. All these muscles work together to help you see. If you damage these muscles, you may impair your vision.

### Stability



The skeletal muscles in your core help protect your spine and help with stability. Your core muscle group includes the abdominal, back, and pelvic muscles. This group is also known as the trunk. The stronger your core, the better you can stabilize your body. The muscles in your legs also help steady you.

## Posture



Your skeletal muscles also control posture. Flexibility and strength are keys to maintaining proper posture. Stiff neck muscles, weak back muscles, or tight hip muscles can throw off your alignment. Poor posture can affect parts of your body and lead to joint pain and weaker muscles. These parts include the:

- shoulders
- spine
- hips
- knees