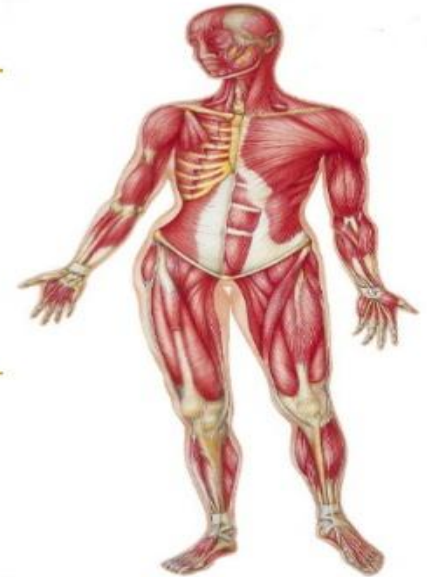


## **THEME**

■  
■

## **Muscular System**



**Students name: Abibullaeva J**

**Faculty: General medicine**

**Group: 102 A**

**Lecture r: Abdykadyrova G.I.**

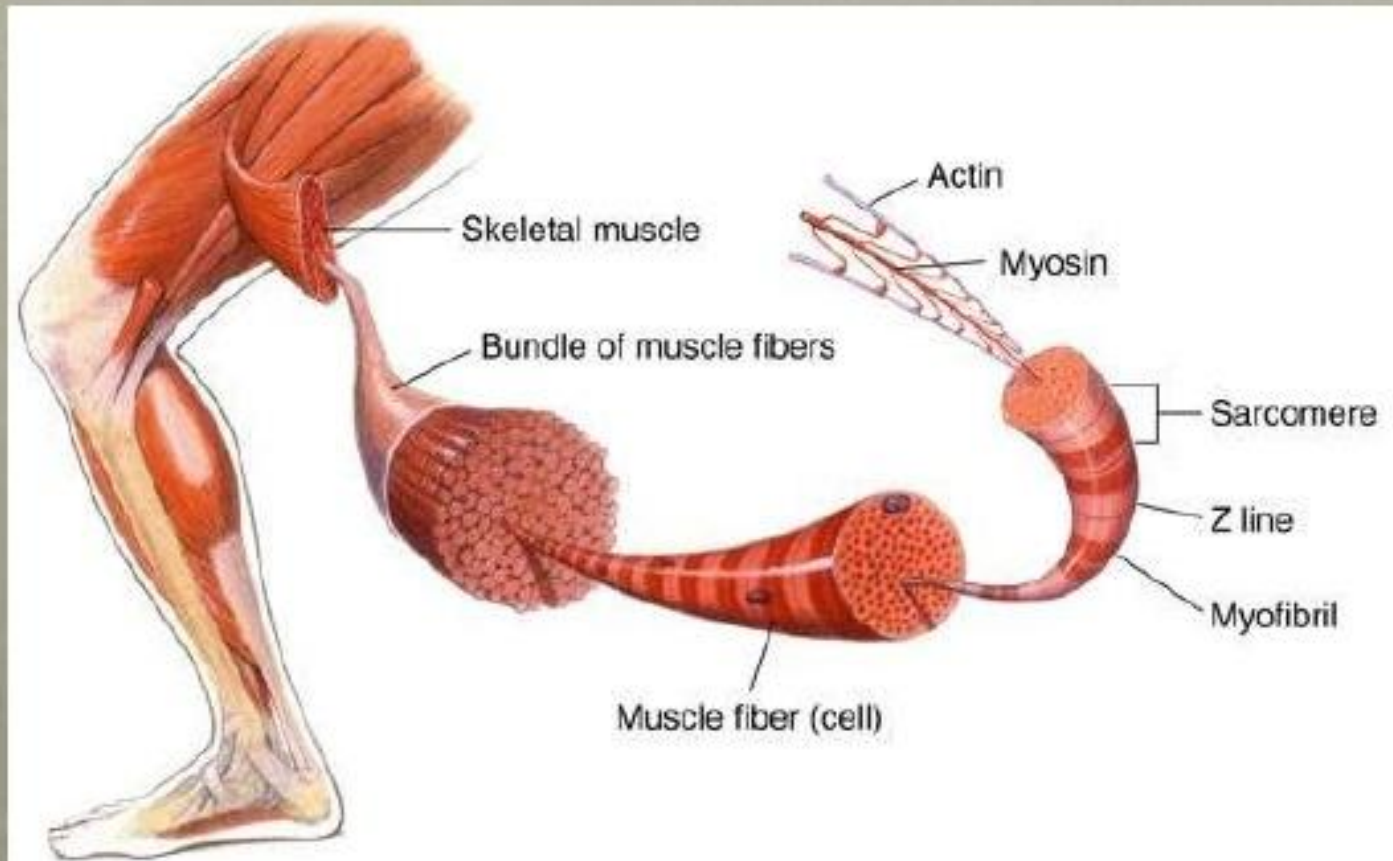
# Muscular system

- Nearly half of body weight is muscle weight.
- The 206 bones of the skeletal framework are covered by nearly 650 muscles.



# Musdefibers

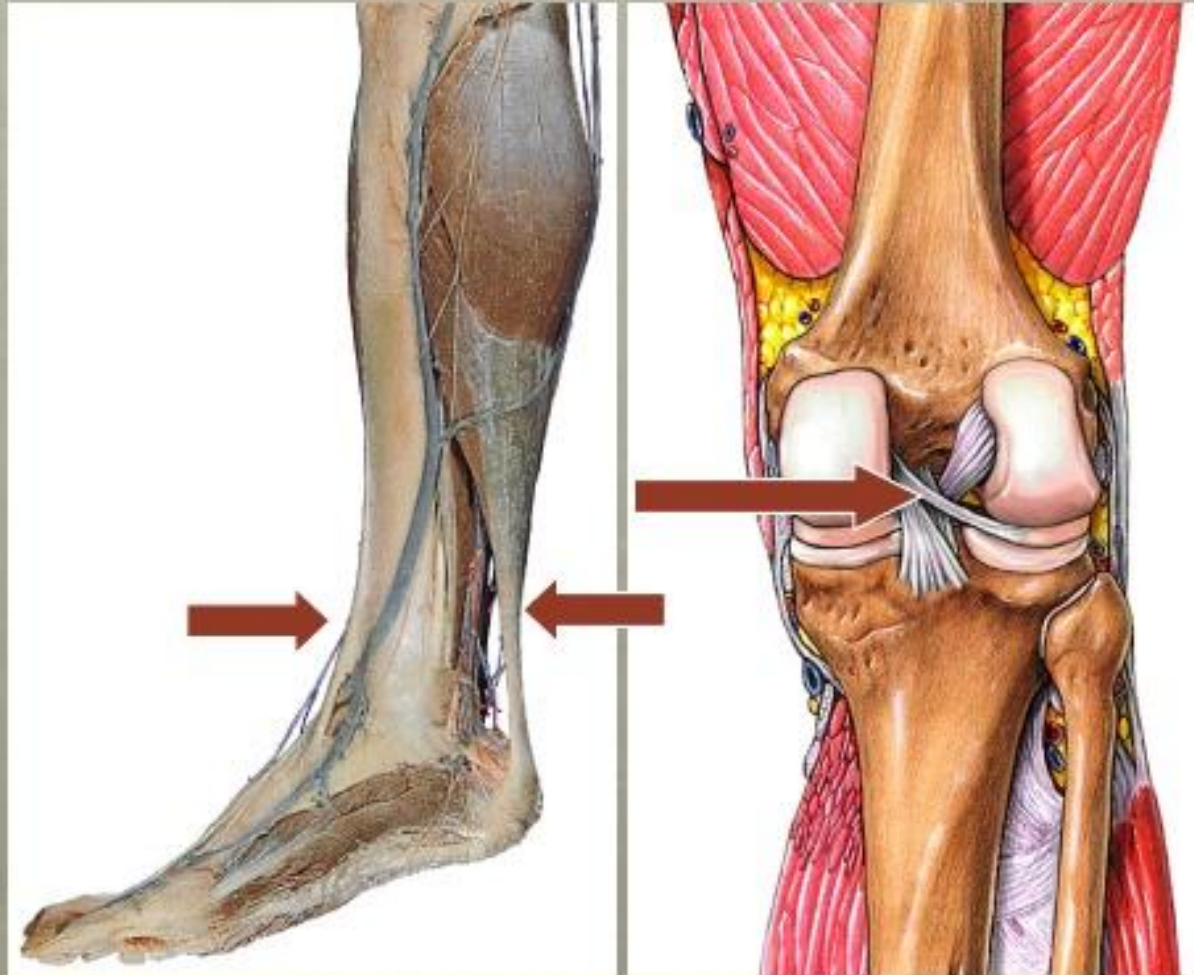
- Muscles are composed of many bundles of stringy fibers bound together in bunches.





# Tendons & ligaments

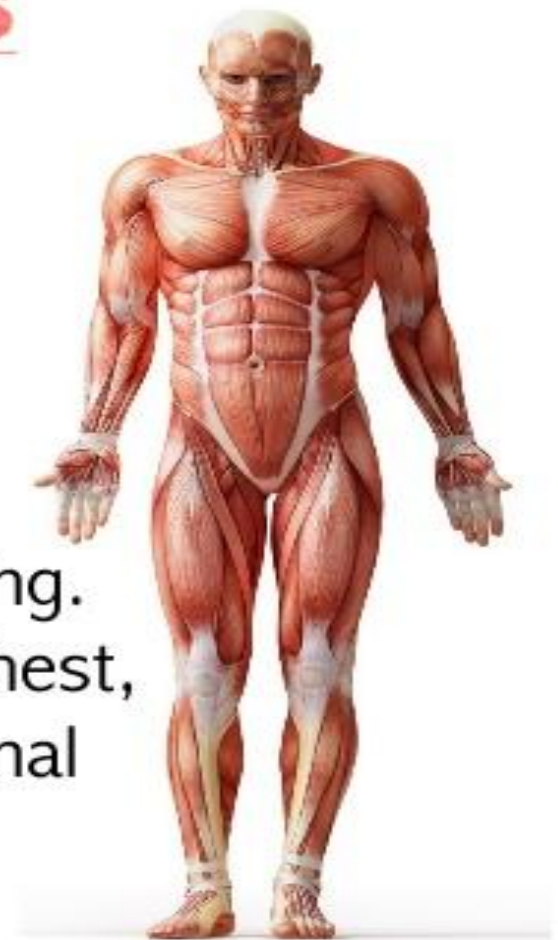
- Muscles are connected to bones by tendons, which are tough, elastic-type bands of connective tissue.
- Bones are connected to each other by ligaments.



# Functions

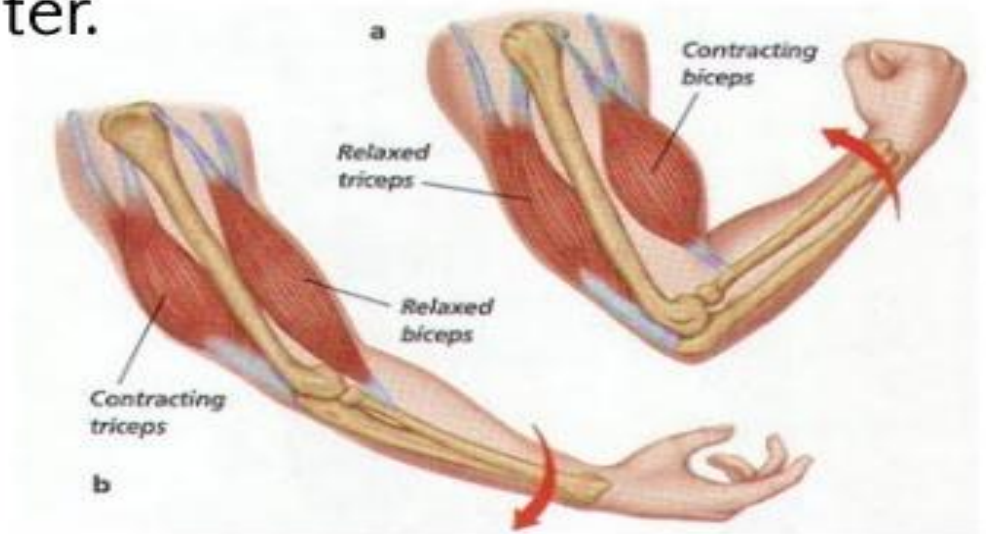
## Protection

- Muscles protect your body. They cover most of your skeleton.
- Muscles also cover most of the organs inside your body.
- Muscles are like a layer of padding. They surround your abdomen, chest, and back, and protect your internal organs.



# Muscular System

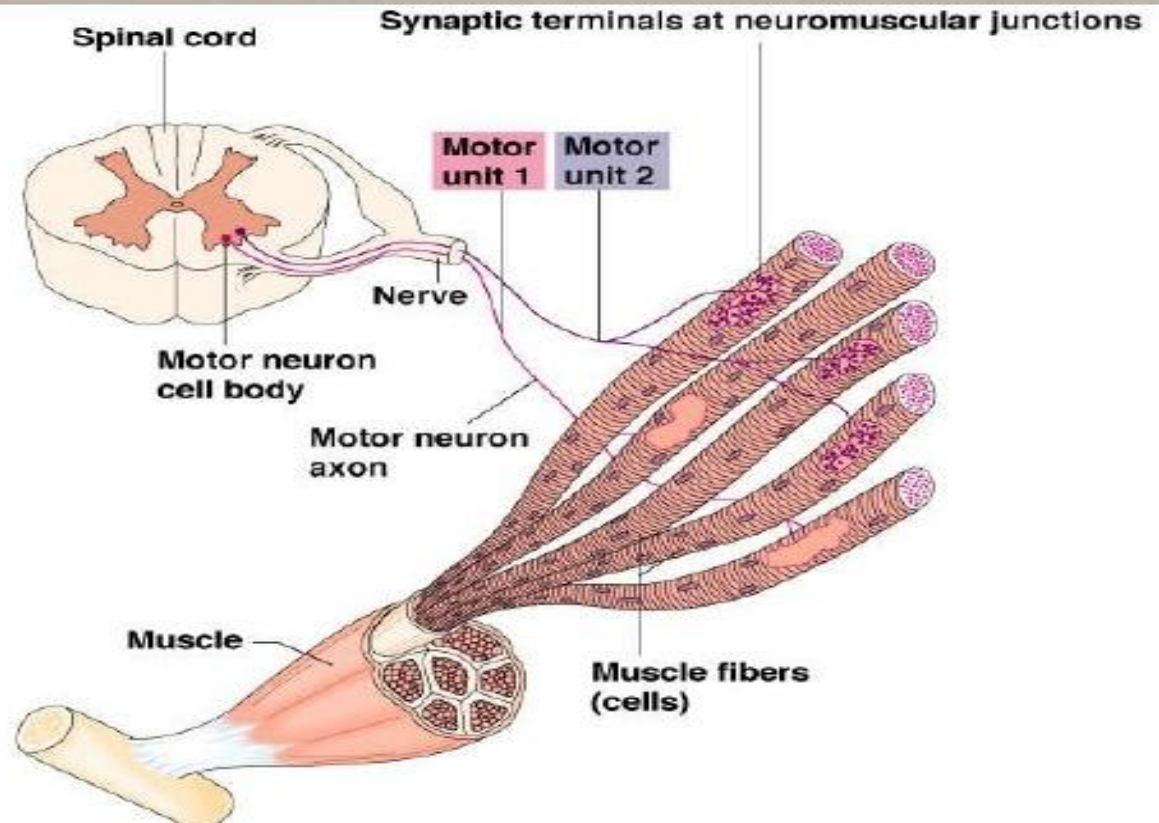
- All muscle tissues are made of cells that contract.
- When the cells of a muscle contract, the muscle tissues become shorter.
- The muscle tissues return to their original length when the cells relax.



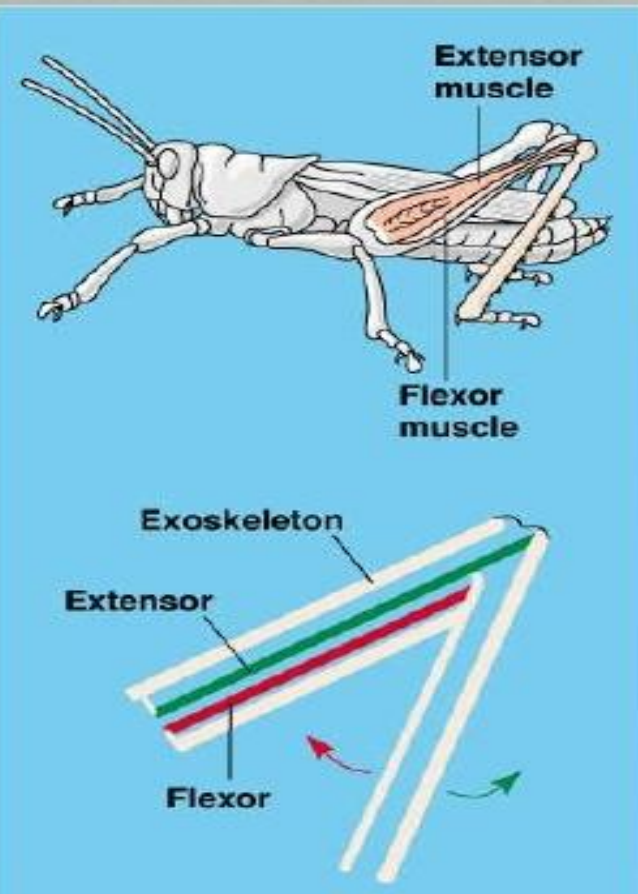
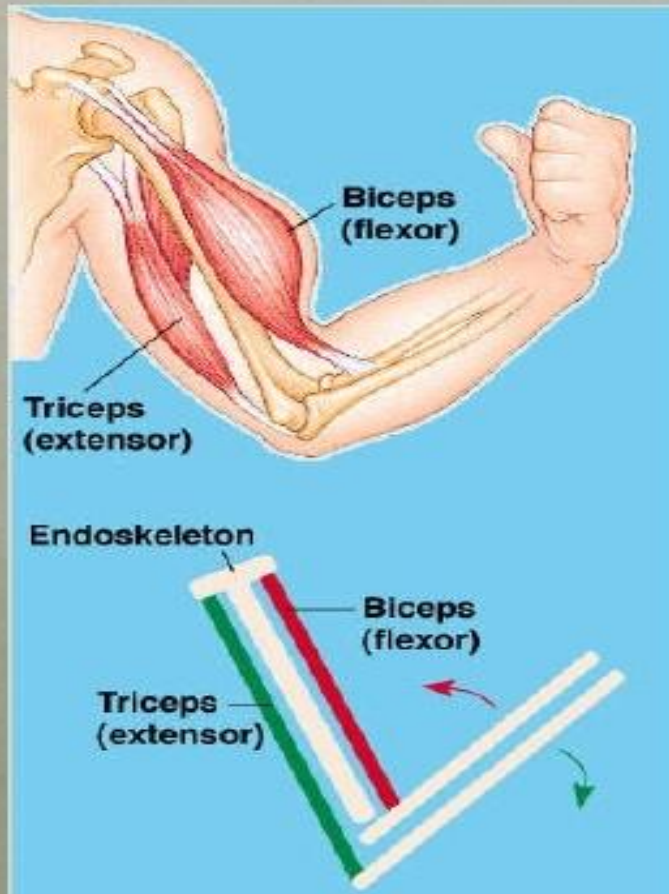


# Muscle Contraction

- Muscles, when stimulated by a nerve to act, contract and produce body heat.



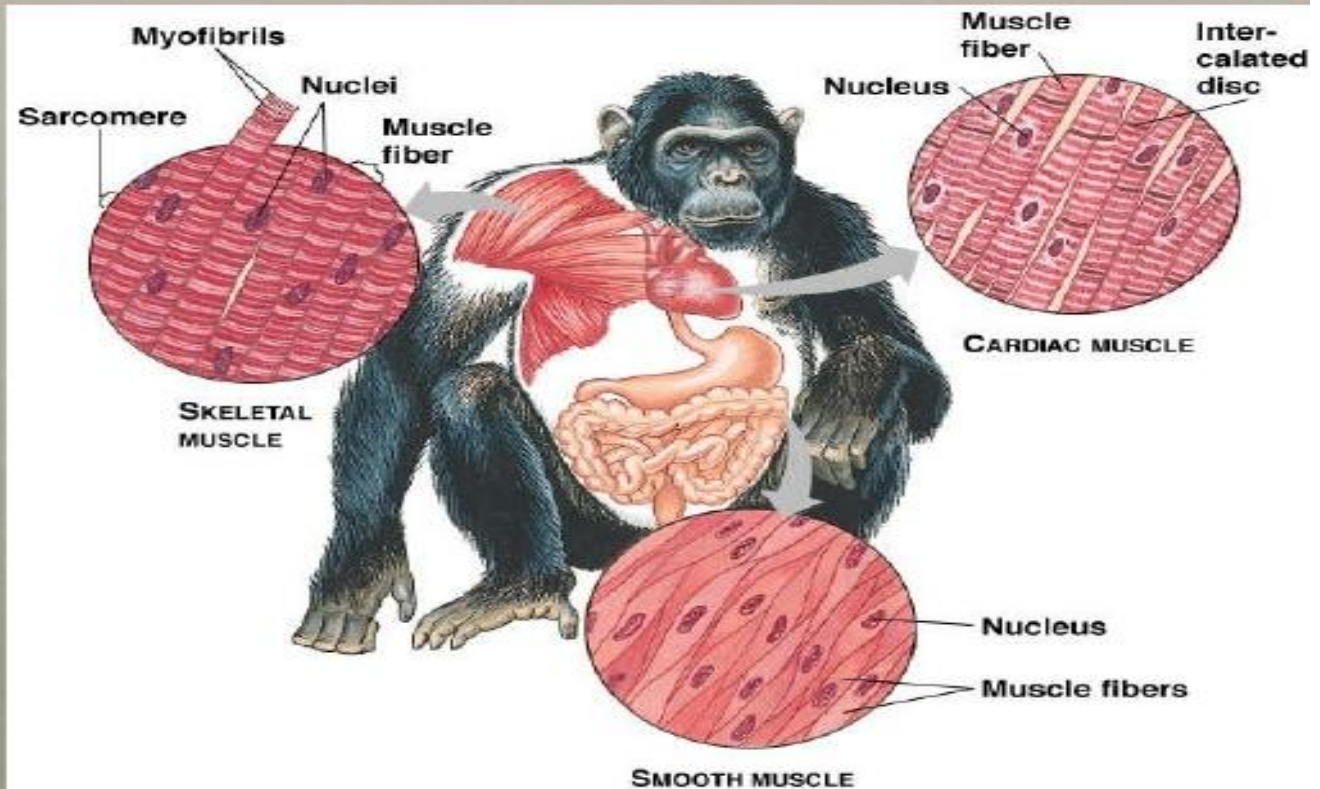
# Muscles work in pairs



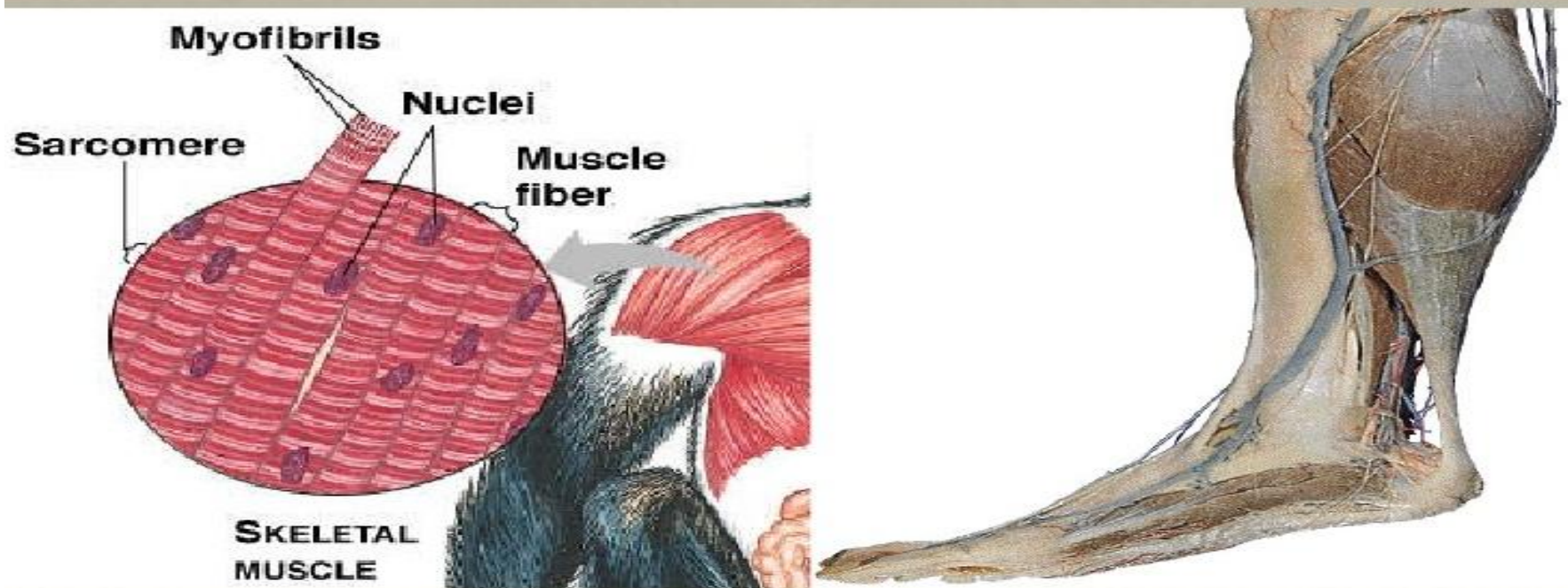


# 3 Types of muscles

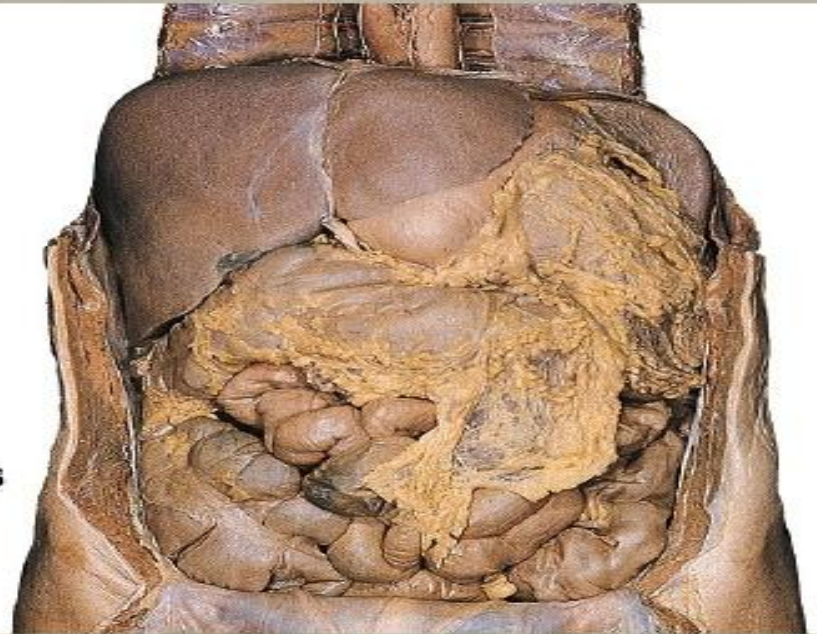
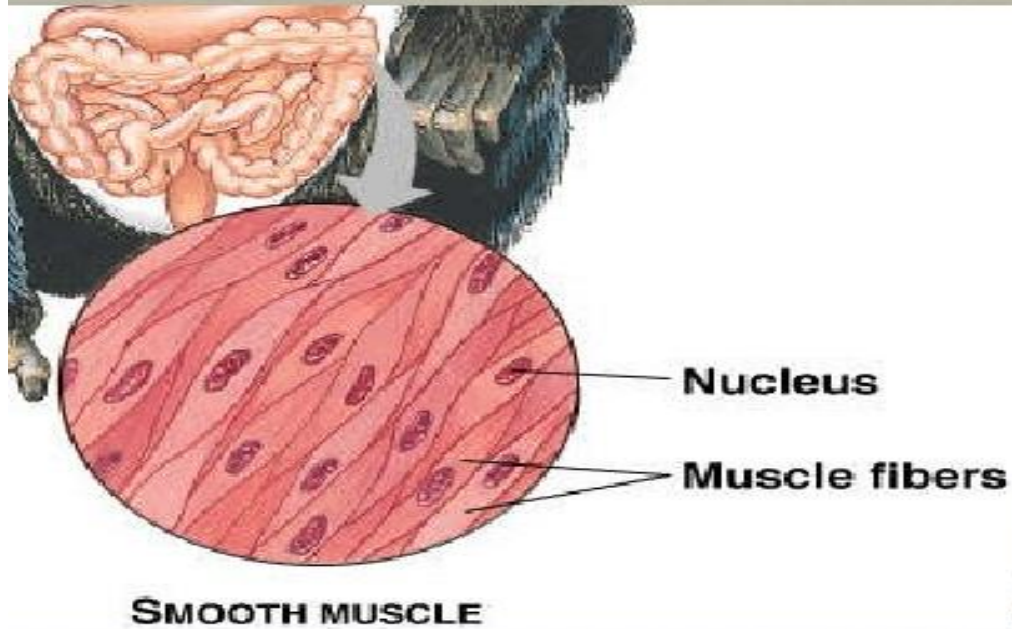
- Skeletal Muscle
- Smooth Muscle
- Cardiac Muscle



# Skeletal muscle



# Smooth muscle





# The Muscular System

## Problems of the Muscle System

**Bruise-** is a area of discolored skin that appears after an injury.

**Tendonitis-** is a inflammation of the tendon, caused by injury or over use aging

**Hernia-** when a organ or tissue protrudes through an area of weak muscle.

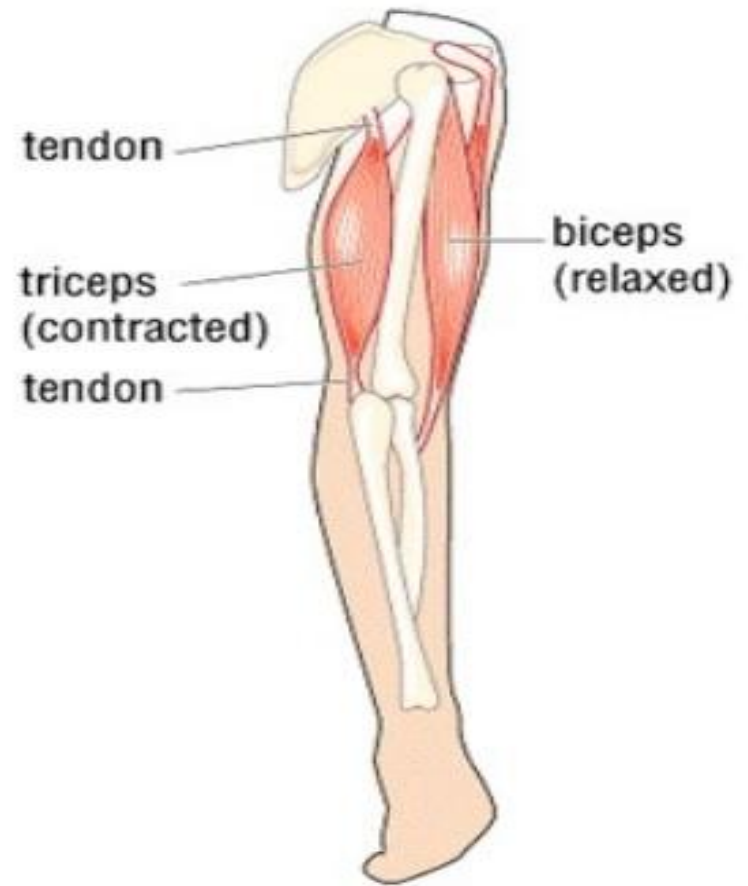
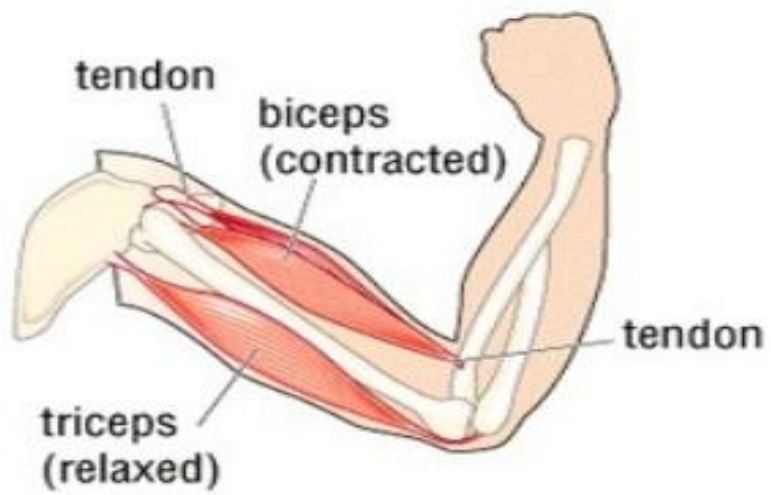
# SKELETAL or VOLUNTARY MUSCLES

They are under our **conscious control**.

This means we instruct them to perform everyday actions such as walking, running and jumping.


How many can you name?







## MUSCLES CAN WORK AS:

- **Flexors** - contracting to bend our joints.
  - **Extensors** - contracting to straighten joints.
  - **Prime movers (agonists)** - contracting to start a movement.
  - **Antagonists** - relaxing to allow movement to take place.
  - **Fixators** - contracting to give the working muscles a firm base.
  - **Synergists** - stabilising the area around the prime mover and fine tuning our movement.
- 
- Decorative geometric shapes in orange, teal, and light blue at the bottom of the slide.