# Muscles Study Guide

### Types of muscles

Voluntary- You control their movement (walking, smiling, getting out of your chair)

Involuntary- You do not control their movement (heartbeat, digesting food)

### Main functions of muscular system

- Movement (walking, talking, heartbeat)
- Maintain body temperature (shivering)
- Maintain posture (hold body up against gravity)

### 3 Types of Muscles

#### Skeletal-

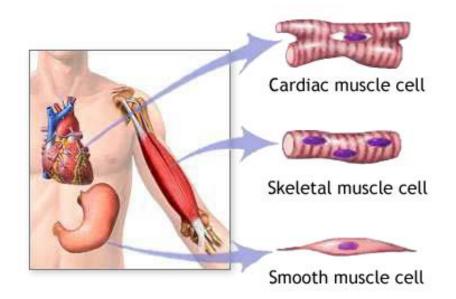
- move body by pulling on bones
- attached to bones by tendons
- they work in pairs to move bones
- react quickly
- tires easily
- voluntary
- striated

#### Smooth-

- control movements inside your body, such as digestion of food
- located in internal organs, example: stomach and blood vessels
- react slowly
- tire slowly
- involuntary
- not striated

#### Cardiac-

- Found only in the heart
- contracts constantly (heartbeats)
- do not get tired
- involuntary
- striated





#### Muscles work in pairs to move bones.

While one muscle **contracts**, the other muscle **relaxes**.

Pectorals/Trapezius: move arms/shoulder forward and backward

<u>Deltoids/Latissimus dorsi</u>: push arm upward and downward

<u>Biceps/Triceps</u>: bending and straightening the elbow

Rectus Abdominus/Gluteus Maxiumus: bending over and straightening up

Quadriceps/Hamstrings: bending and straightening the knee

Gastrocneumius/Tibialis anterior: standing on your toes or pulling toes up to shin

Exercise is important to maintain muscular strength and flexibility.

Longest muscle in body: Sartorius

**Tendons:** Connective tissue that joins muscles to bones

## \*\*\*STUDY MUSCLE MAN DIAGRAM\*\*\*