

**What is the  
muscular system?**

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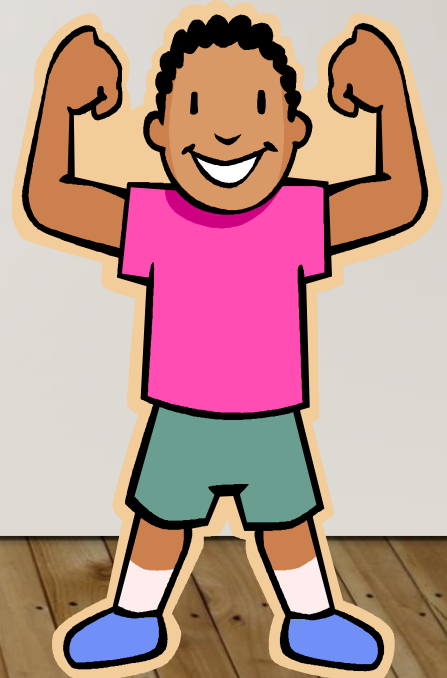
What is the function of the muscular system?

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# THREE FUNCTIONS:

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1. Produce movement
2. Keep body temperature the same
3. Maintain posture



# I. Produce movement

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- Muscles are made up of individual cells called muscle fibers – contract and relax.
- Work in pairs – one contracts, one relaxes.
- Muscles are attached to bones by stretchy connective tissue called tendons

## 2. Keep body temperature the same

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- **Homeostasis** – the balance of body conditions
- When muscles contract, they release heat.
  - Ex: shivering produces heat.

### 3. Maintain posture

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- Most are always a bit contracted to make you stand up straight
- Only relax when you are unconscious
- Muscles make adjustments to keep you standing up straight

**What are the types of muscles?**

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# Three types of muscles

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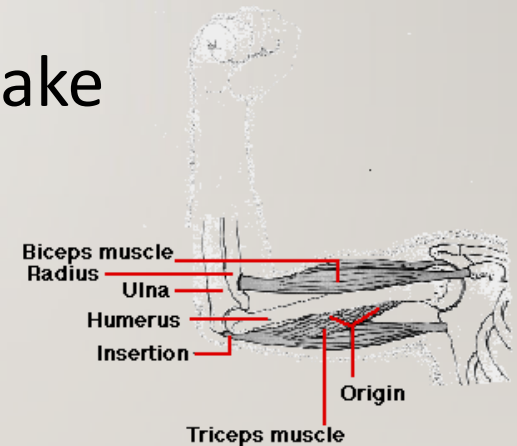
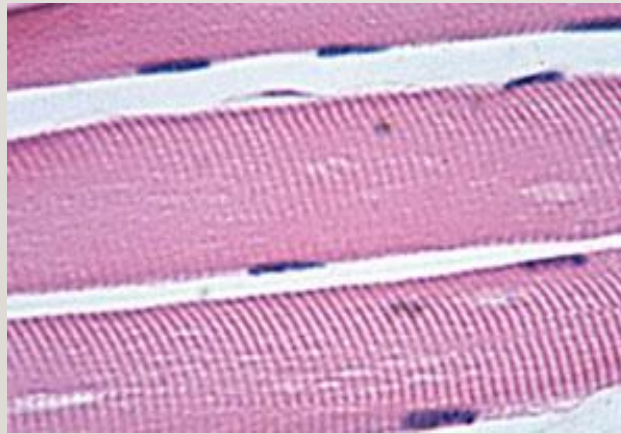
1. Skeletal (Voluntary)
2. Smooth (Involuntary)
3. Cardiac (Involuntary)



# I. Skeletal

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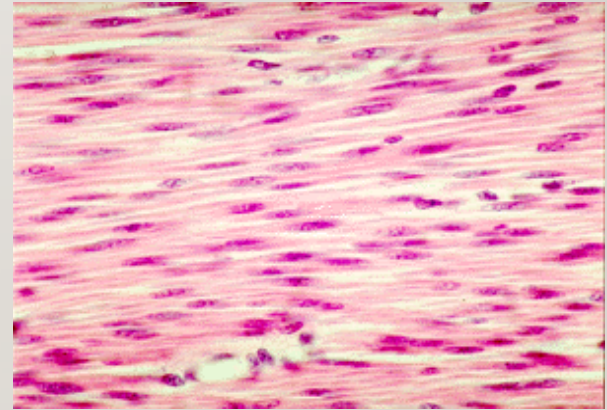
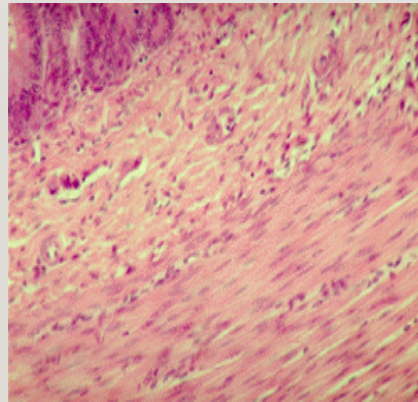
- Muscles that are attached to our skeleton
- Perform voluntary movement
  - Movement **you choose** to make



## 2. Smooth

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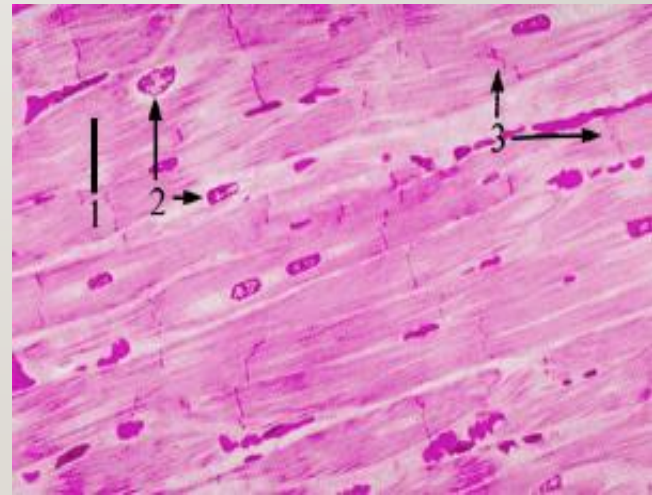
- Found inside organs such as the intestines and stomach
- Perform involuntary movement
  - Ex: push food along digestive system



### 3. Cardiac

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- Heart muscles
- Involuntary – don't have to think about it
- Contracts slowly



# Allowing bones to move

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- Skeletal muscles are attached to bones by strong tissues called **tendons**.
- Tendons on the end of each muscle attach firmly to the bone.
- As fibers in muscles contract, they shorten and pull the tendon. The tendon pulls the bone and makes it move.
  - Do this:
    - **Place your left arm, stretched out flat in front of you on a table. Place the fingers of your right hand just above your left elbow. Bend your elbow and raise and lower your left arm. You are contracting your biceps. Can you feel the muscle pull on the tendon?**

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<https://kidshealth.org/CHOC/en/kids/msmovie.html>