

Do Now

What is a joint?

What are **Joints**?

- A place in the body where two or more bones connect
- Allows movement when the muscles attached to the bones contract

Synovial Joints

- Allow for large degree of movement

Examples:

Hinge

Pivot

Ball & Socket

Saddle

Condyloid

Gliding

Joint: Hinge



- Allows movement back and forth in one direction
- Examples
 - Elbow
 - Knee
 - Ankle
 - Fingers & Toes

Joint: **Pivot**



- One bone rotates around the axis of the other bone in the joint.



- Examples:
 - Elbow
 - Neck
 - Wrist

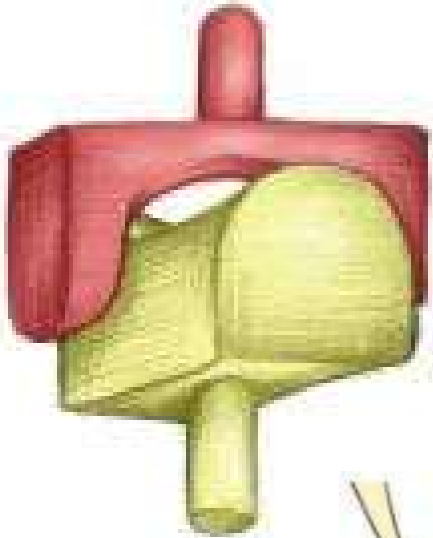
Joint: **Ball and Socket**



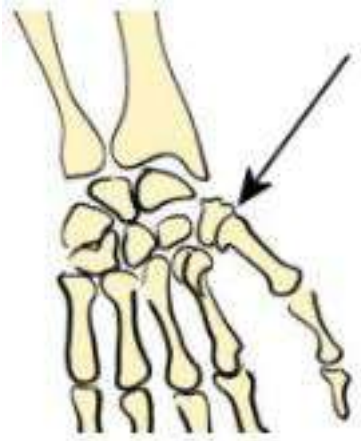
- Allows the limbs to rotate in all directions.
- Examples:
 - Shoulder
 - Hip



Joint: Saddle

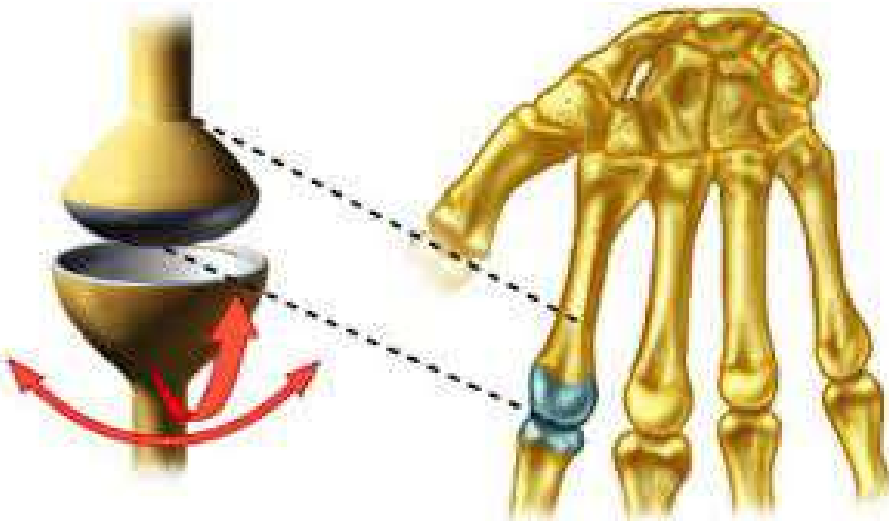


- Can move back and forth and up and down
- Example
 - Thumb



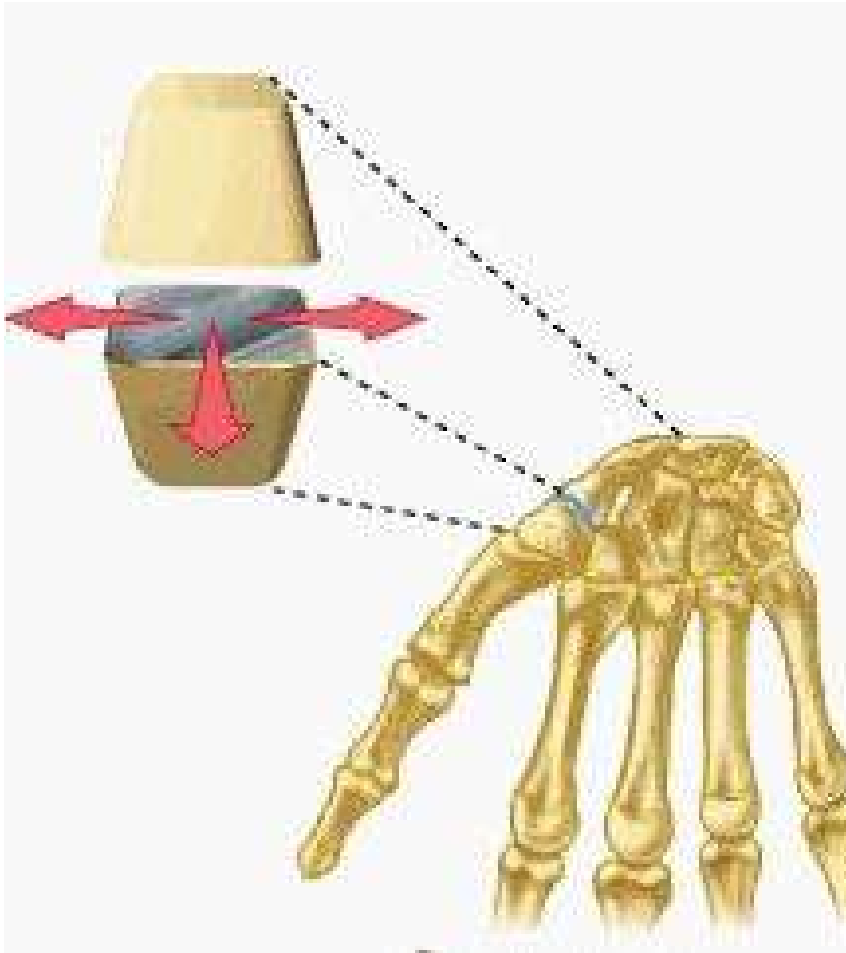
Joint: **Condyloid**

- oval-shaped end of one bone fitting into a similarly oval-shaped hollow of another bone



- Examples:
 - Wrist
 - Knuckles
 - Fingers
 - Toes

Joint: **Gliding**



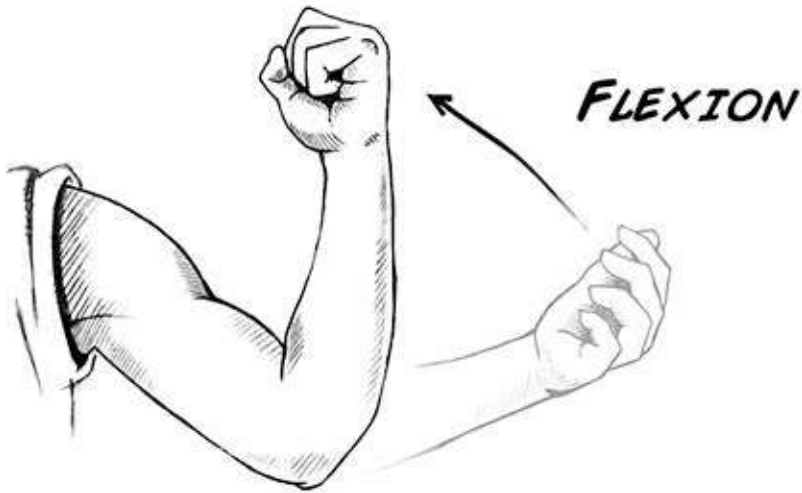
- Where two bones meet at a flat or almost flat surface
- Examples
 - Wrists
 - Ankles
 - Spine

Do Now

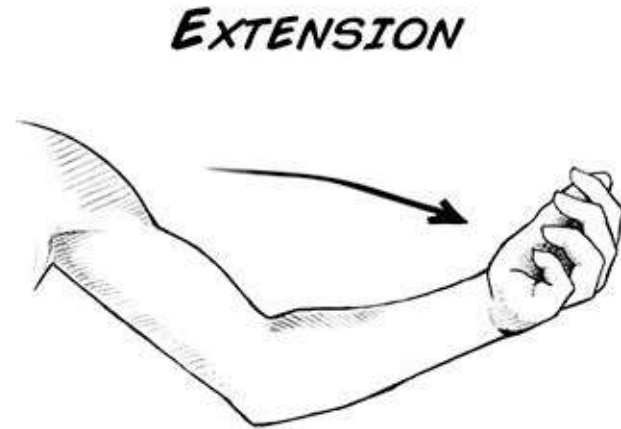
What are 5 different skeletal movements?

Flexion vs. Extension

Angle at the joint gets smaller



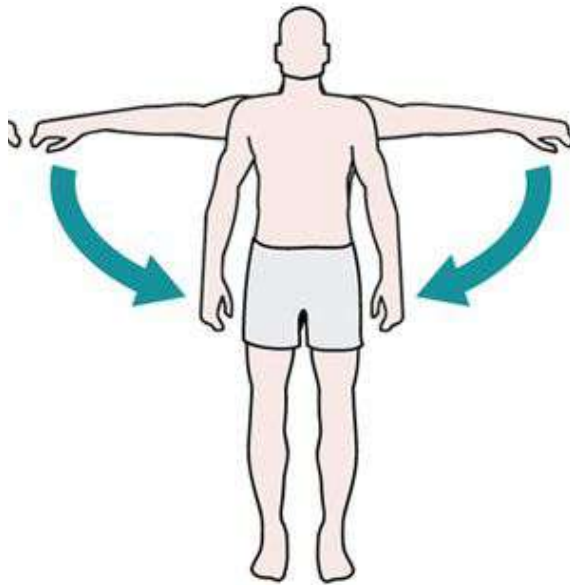
Angle at the joint gets bigger



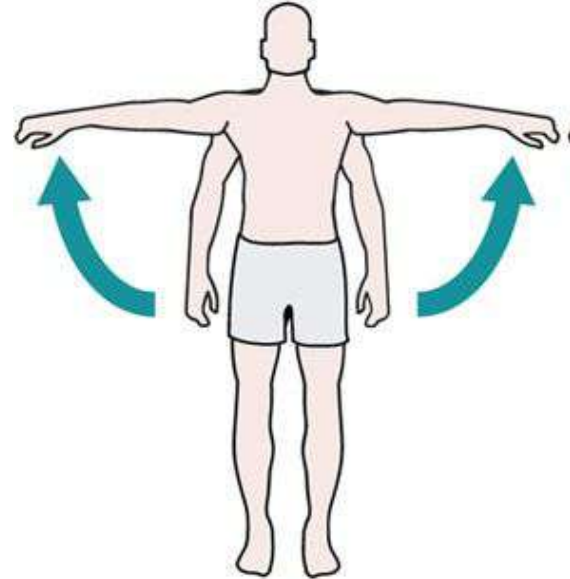
Joints: Hinge, Ball & Socket, Saddle,
Condylloid

Adduction vs. Abduction

- Any movements towards the midline of the body.
- Any movements away from the midline of the body.



Adduction

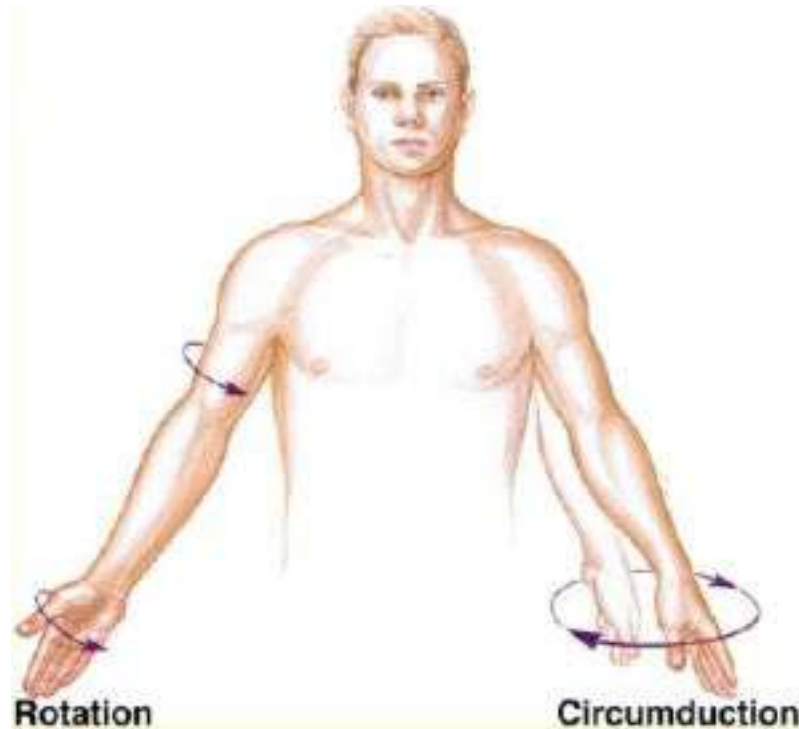


Abduction

Joints: Ball & Socket, Saddle,
Condylloid

Rotation vs. Circumduction

- Movement around the central axis
- The circular movement of a limb



Joints

Pivot, Ball & Socket

Joints

Saddle, Condyloid

Gliding

- Allows the bones to glide past one another in any direction along the plane of the joint **up and down, left and right, and diagonally**

Joints: Gliding

Video

- https://www.youtube.com/watch?v=0cYal_hitz4

Types of Muscles

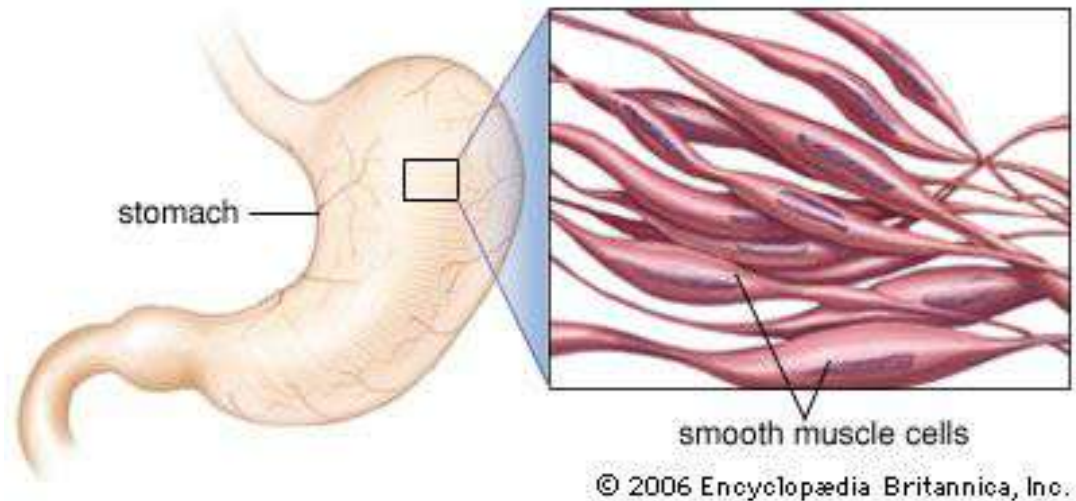
Muscle: **Skeletal**

- Muscle that is attached to the bones



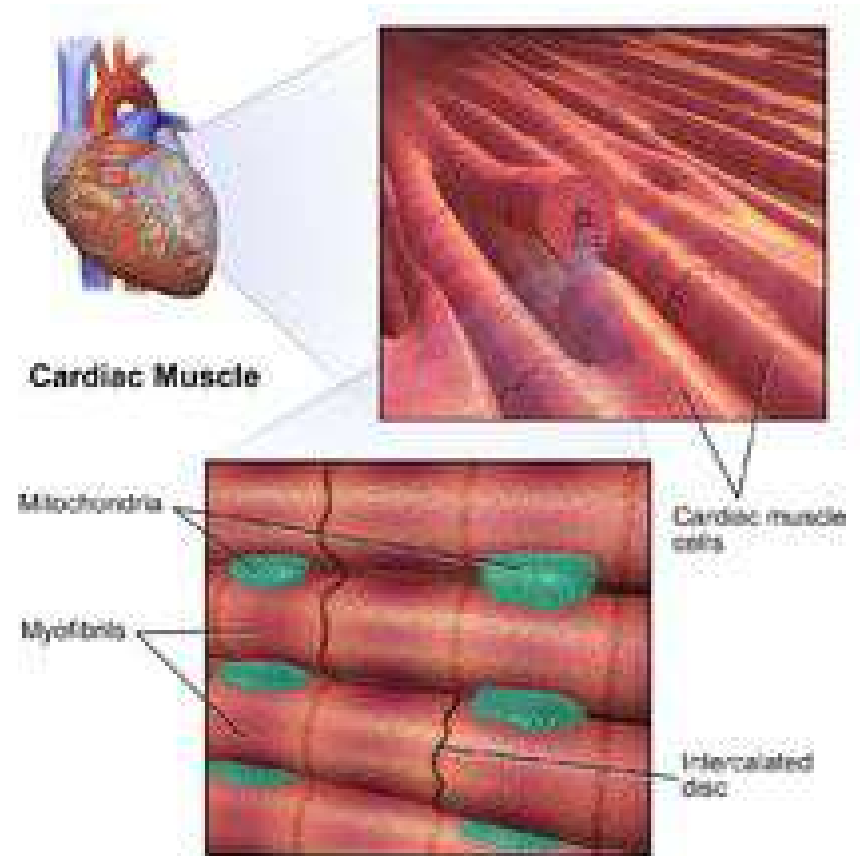
Muscle: Smooth

- Makes up many of your internal organs
 - Examples:
 - Stomach
 - Intestines
 - Esophagus



Muscle: Cardiac

- Found in JUST the heart
- When it contracts, blood is pushed through the body



Muscular Strength vs. Muscular Endurance

Strength

- When you increase the weight to the maximum amount of force a muscle can put out

Endurance

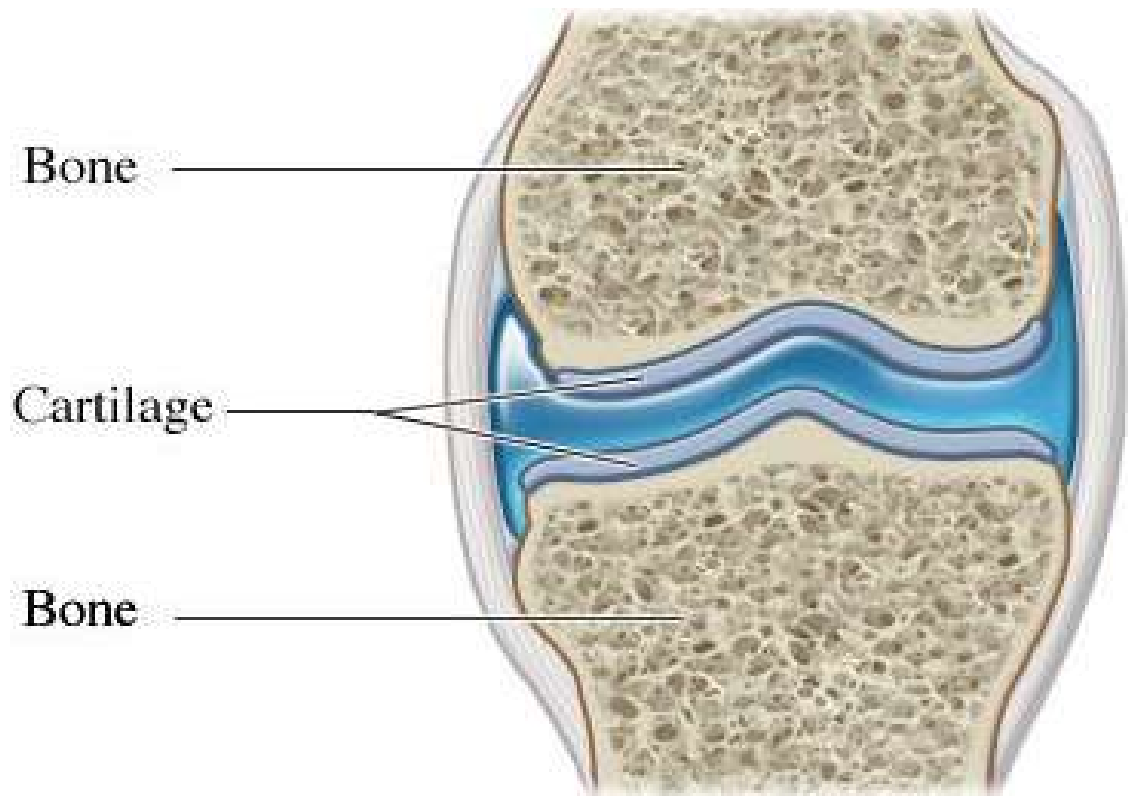
- the ability of a muscle to contract repeatedly over a period of time without getting tired
- How long your muscles can perform the same movement

Muscular Strength = POWER

Muscular Endurance = TIME

What is cartilage?

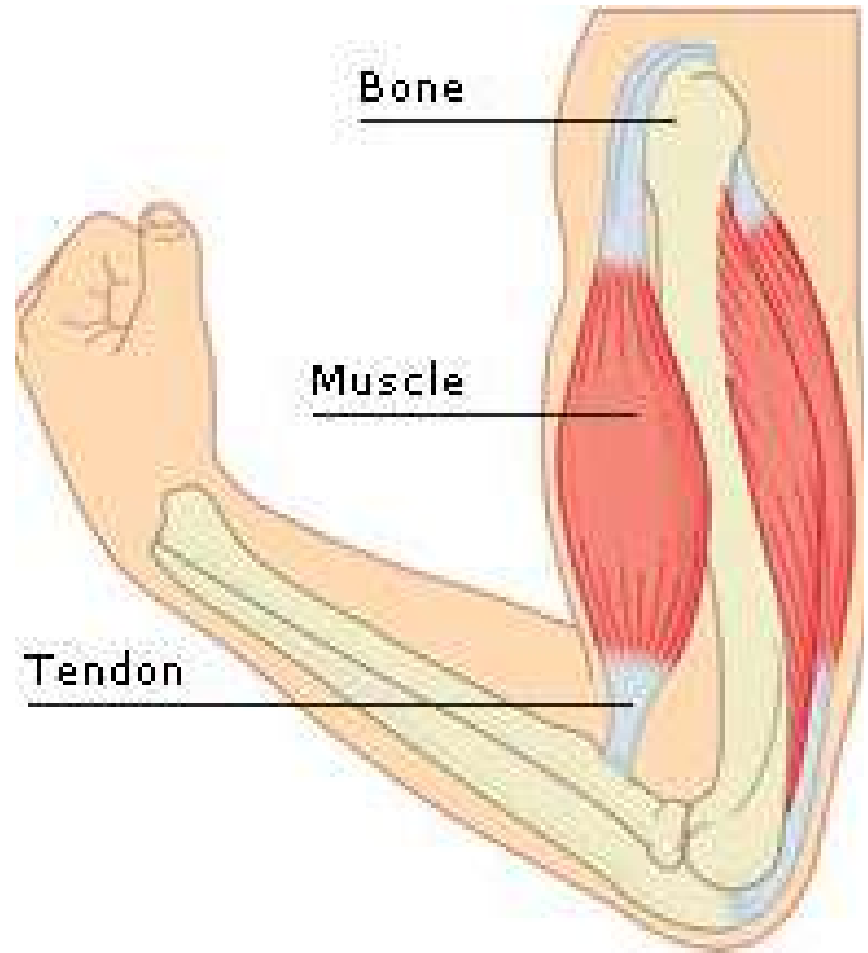
It provides a barrier that the end of many bones to prevent bone on bone contact.



What are tendons?

A connective tissue that connects muscle to bone.

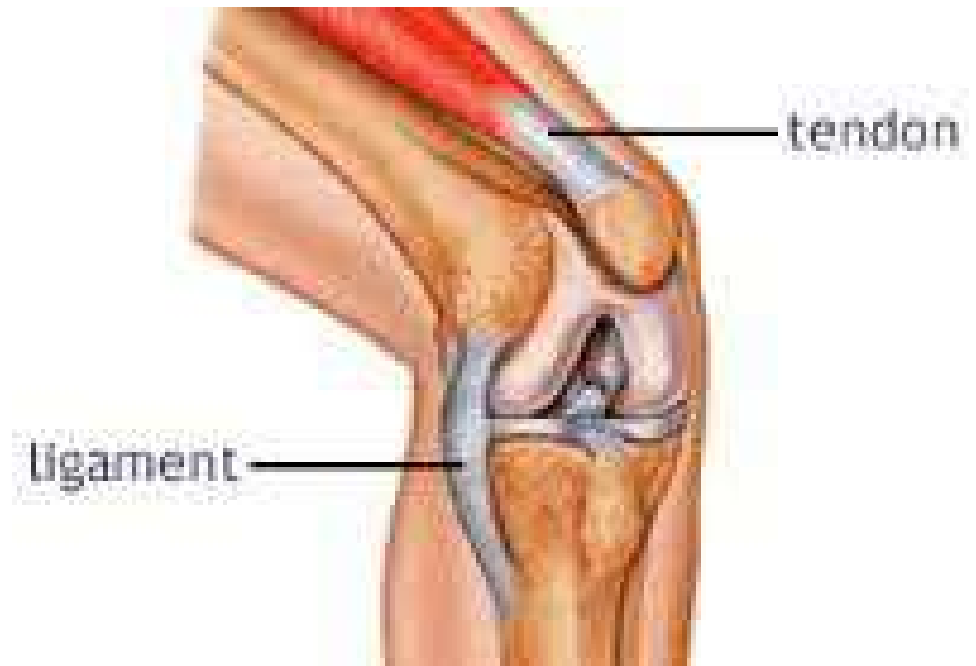
Skeletal muscle is attached to the bones by tendons.



What are ligaments?

Flexible bands of connective tissue that connect bone to bones

The bones in most joints are held together by ligaments.



How do we keep our muscles strong?

"Use it or lose it"

- By exercising every day and using different sets of muscles when you exercise.

- Warm-up before exercising and stretch when you are done!

