

# Skeletal System

Mr. Gerlach's  
7<sup>th</sup> Grade  
Health Education



# The Skeletal System in Action !!

- ▶ The Skeletal System in Action!



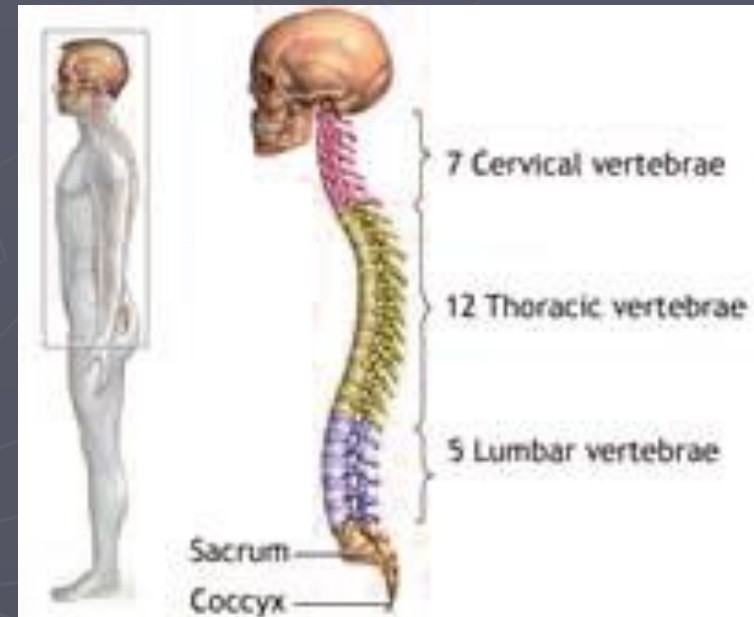
# 5 Functions of the Skeletal System

1. **Movement:** *Skeletal system provides points of attachment for muscles.* Your legs and arms move when the muscles pull on the bones.

Muscle attached to bones!!

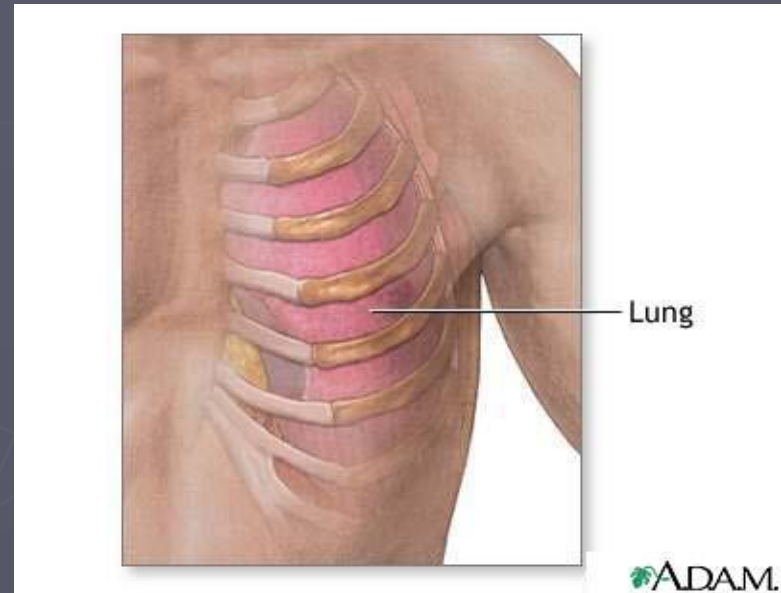


2. **Support:** The backbone is the main support center for the upper body. *It holds your head up and protects your spinal cord.*

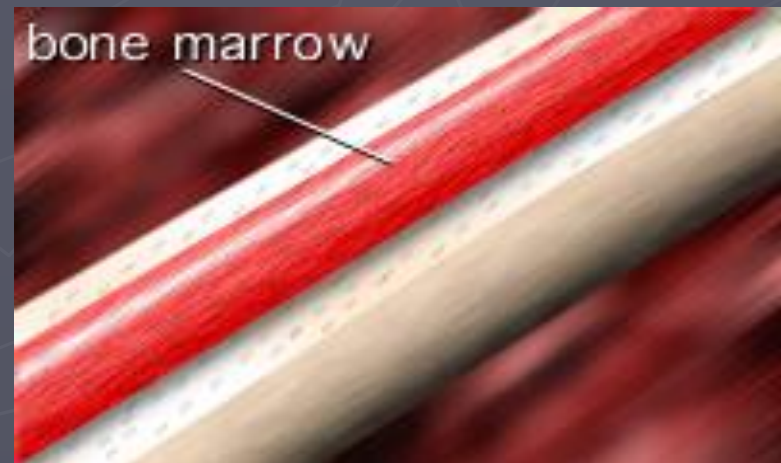


# 5 Functions of the Skeletal System

3. **Protection:** The bones of your skull protect your brain. Your ribs protect your lungs and heart from injury.

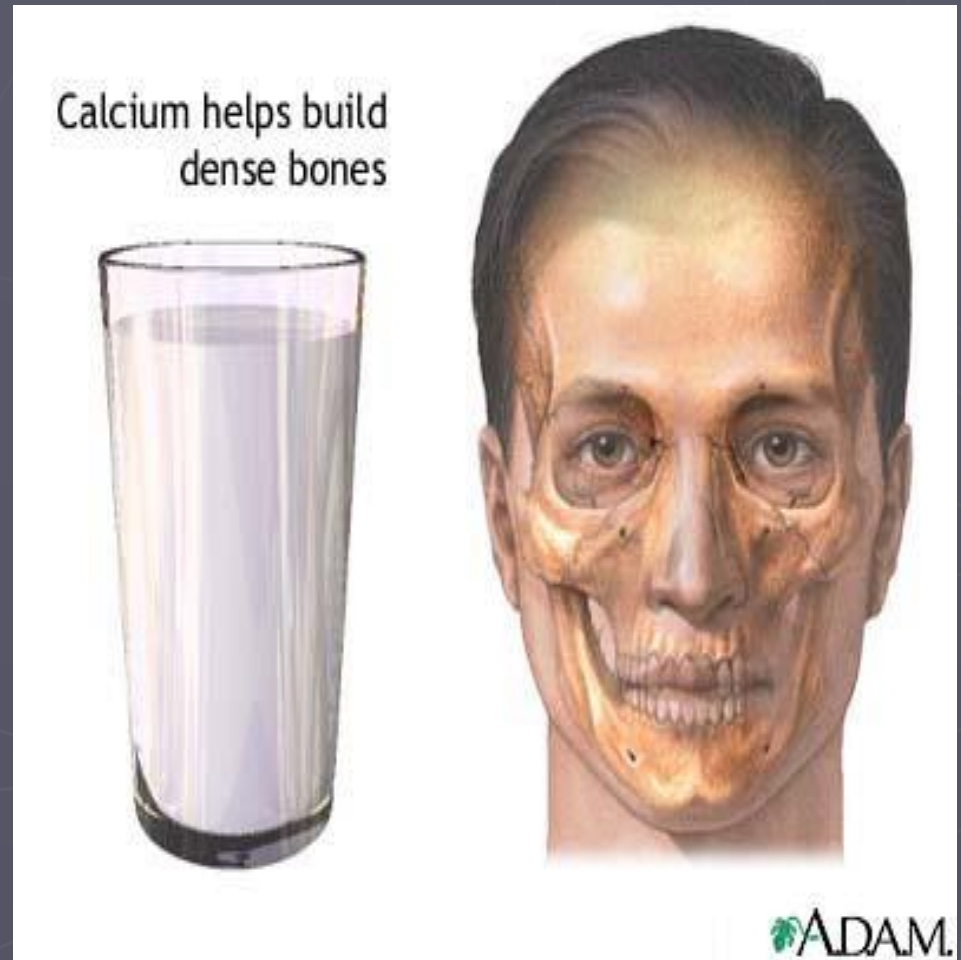


4. **Makes Blood:** Red and white blood cells are formed by tissue called marrow, which is in the center of the bone.



# 5 Functions of the Skeletal System

- ▶ 5. Storage: **Bones store minerals**, such as calcium and phosphorus, for use by the body



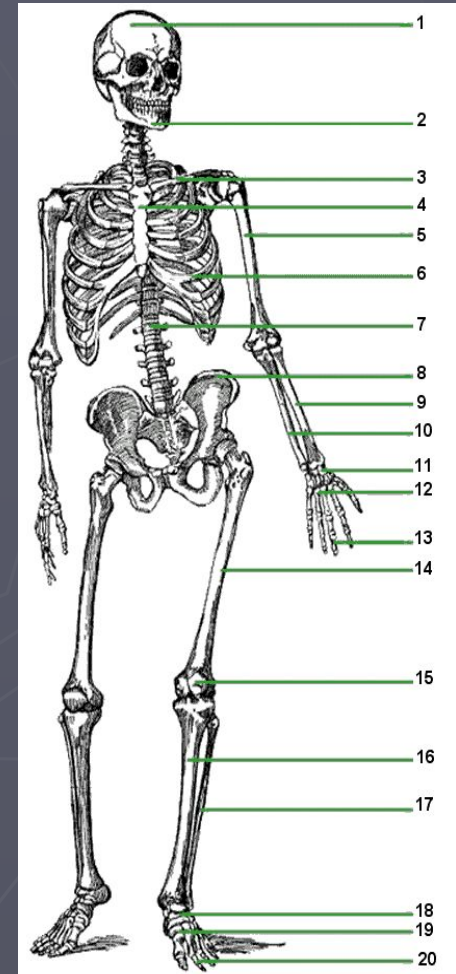
# Two Major Skeletal System Parts

- ▶ Axial Skeleton: The axial skeleton includes the skull, spine, ribs and sternum.
- ▶ Appendicular Skeleton: The appendicular skeleton includes the appendages of the body, which are the shoulders, arms, hips, and legs.



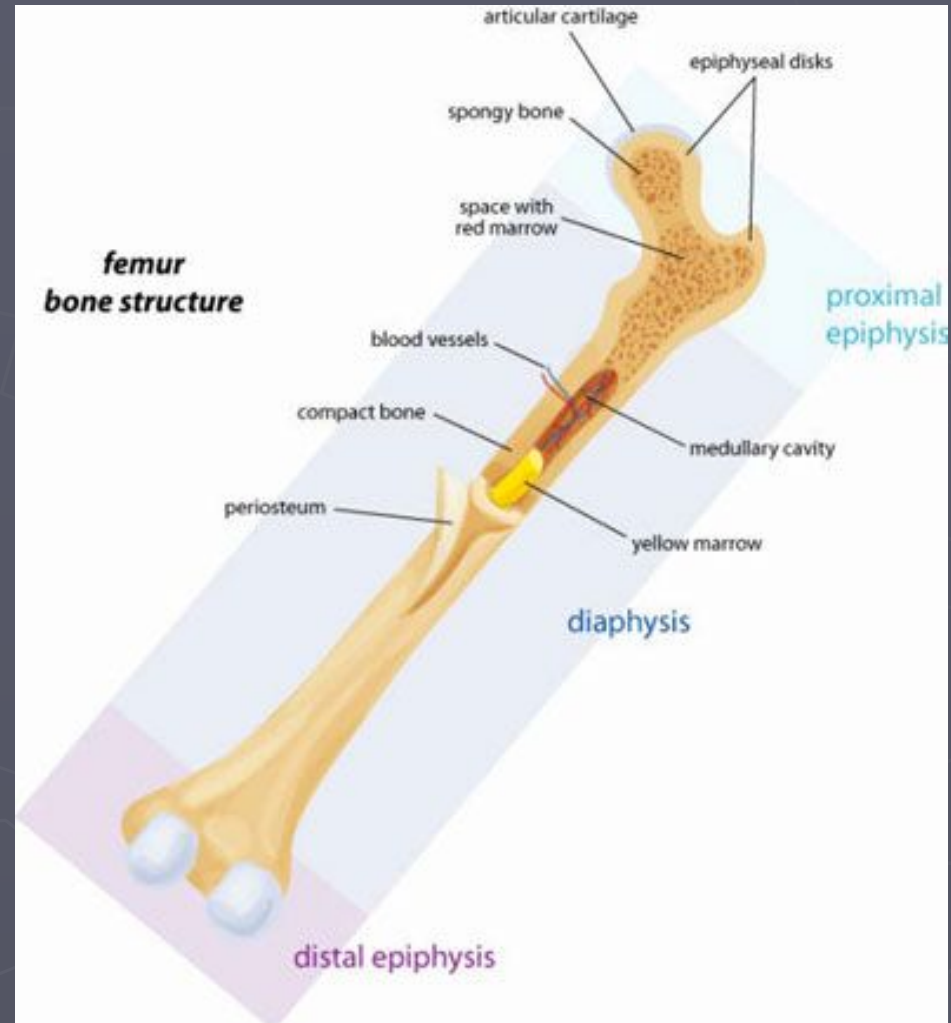
# Skeletal System Bones

- ▶ Four basic bone shapes
  - 1. Long- arms, legs and fingers
  - 2. Short- wrist and ankles
  - 3. Flat- skull and sternum
  - 4. Irregular- spine



# Bone Structure

- ▶ Typical Four Layers:
  - Periosteum: **Covers Bones**
  - Compact Bone: **Lies beneath the periosteum**
  - Spongy Bone: **Lies beneath the compact bone**
  - Bone Marrow: **Fills the gaps between the spongy bone**



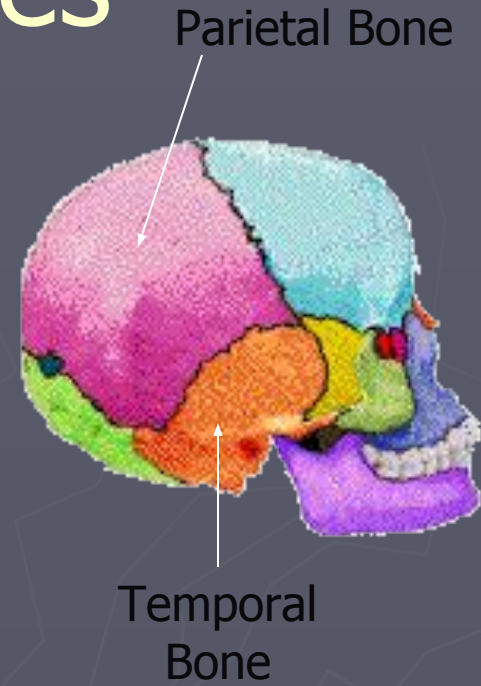


# Bones of the Cranium

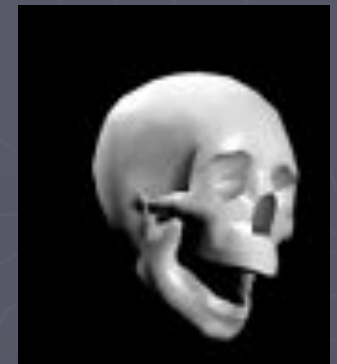
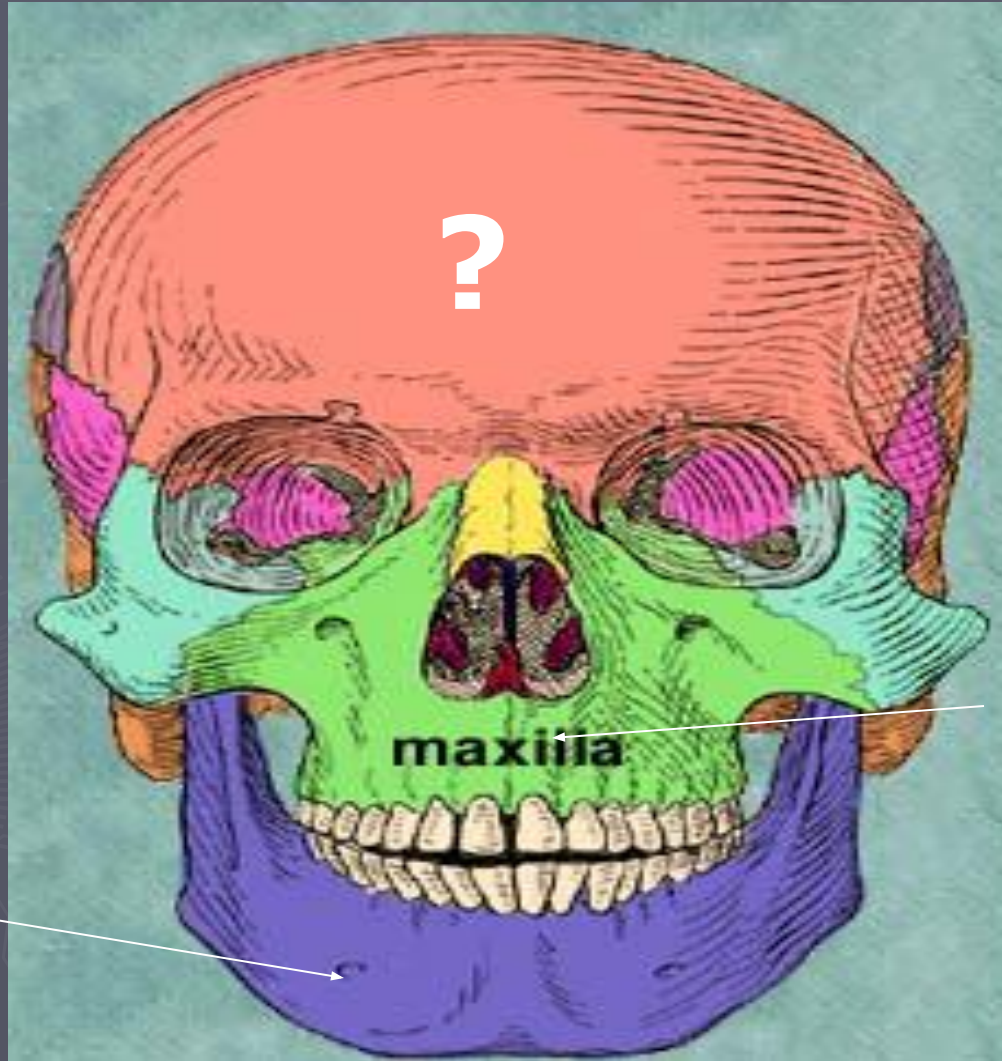
- ▶ Some are thicker than others!!!



# Cranium Bones



# Maxilla and Mandible

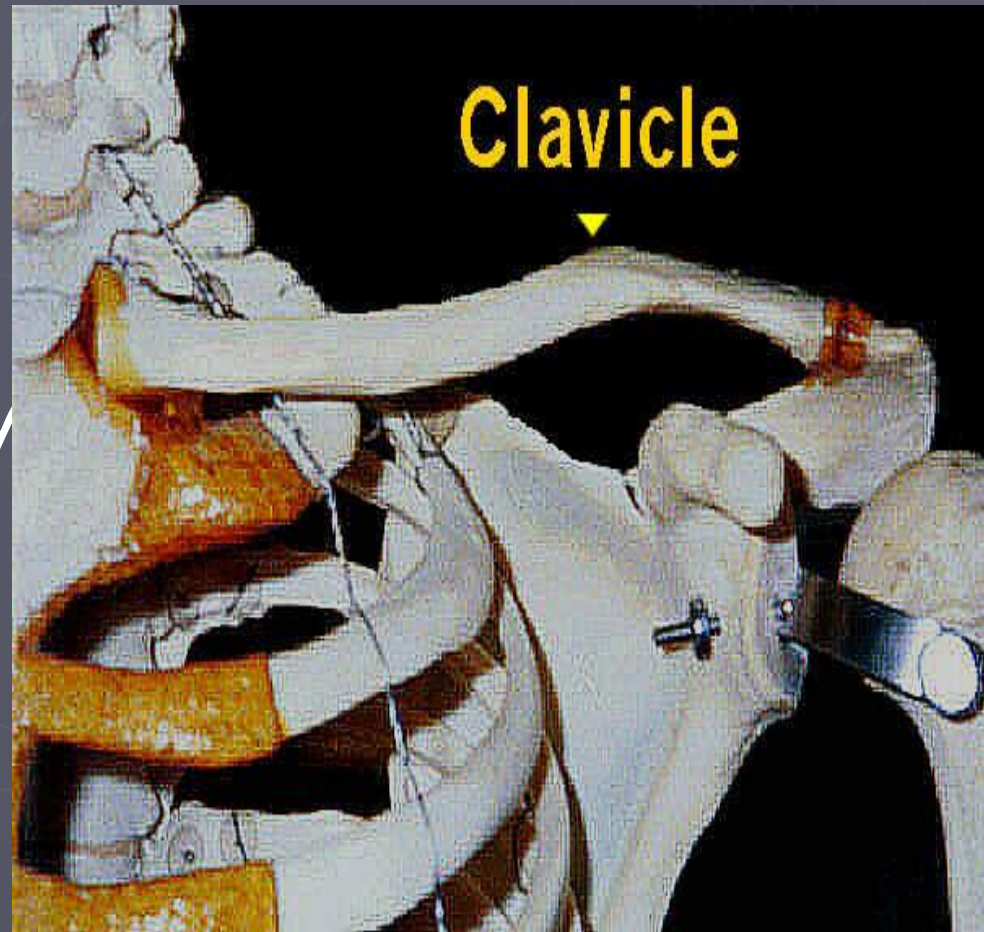


Mandible

Maxilla

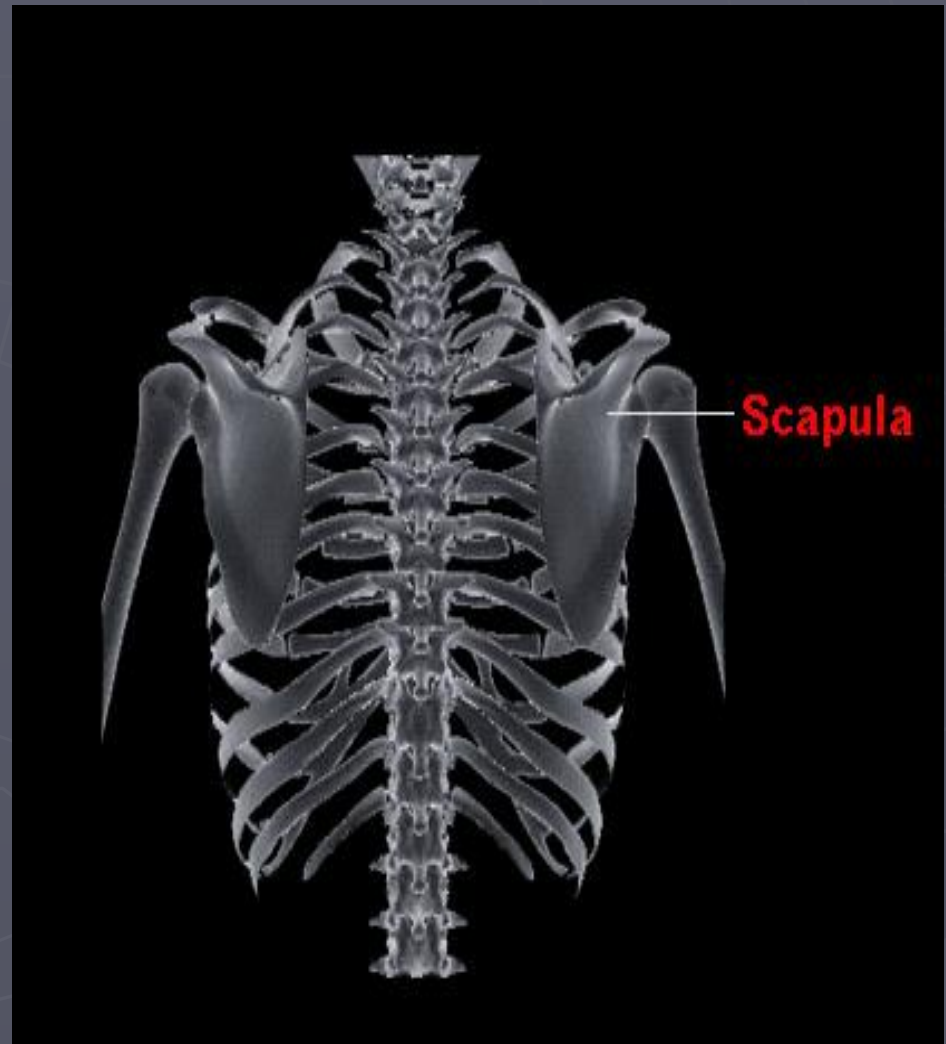
# Clavicle or Collarbone

- ▶ The **clavicle**, or collar bone, holds the shoulder joint away from the rest of the upper body and is only as thick as your little finger.



# Scapula

- ▶ The **scapula** is located on the back side of the ribcage and helps provide part of the shoulder joint and movement for the arms.



# Vertebral Column or Spinal Cord

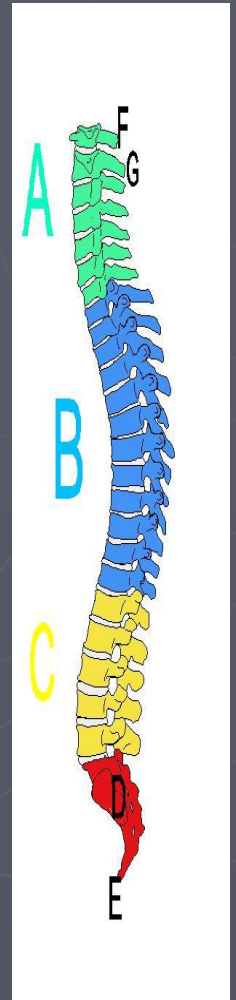
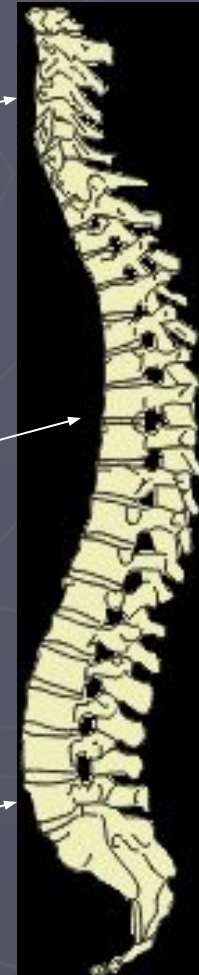
1) The **cervical region** (neck bones)



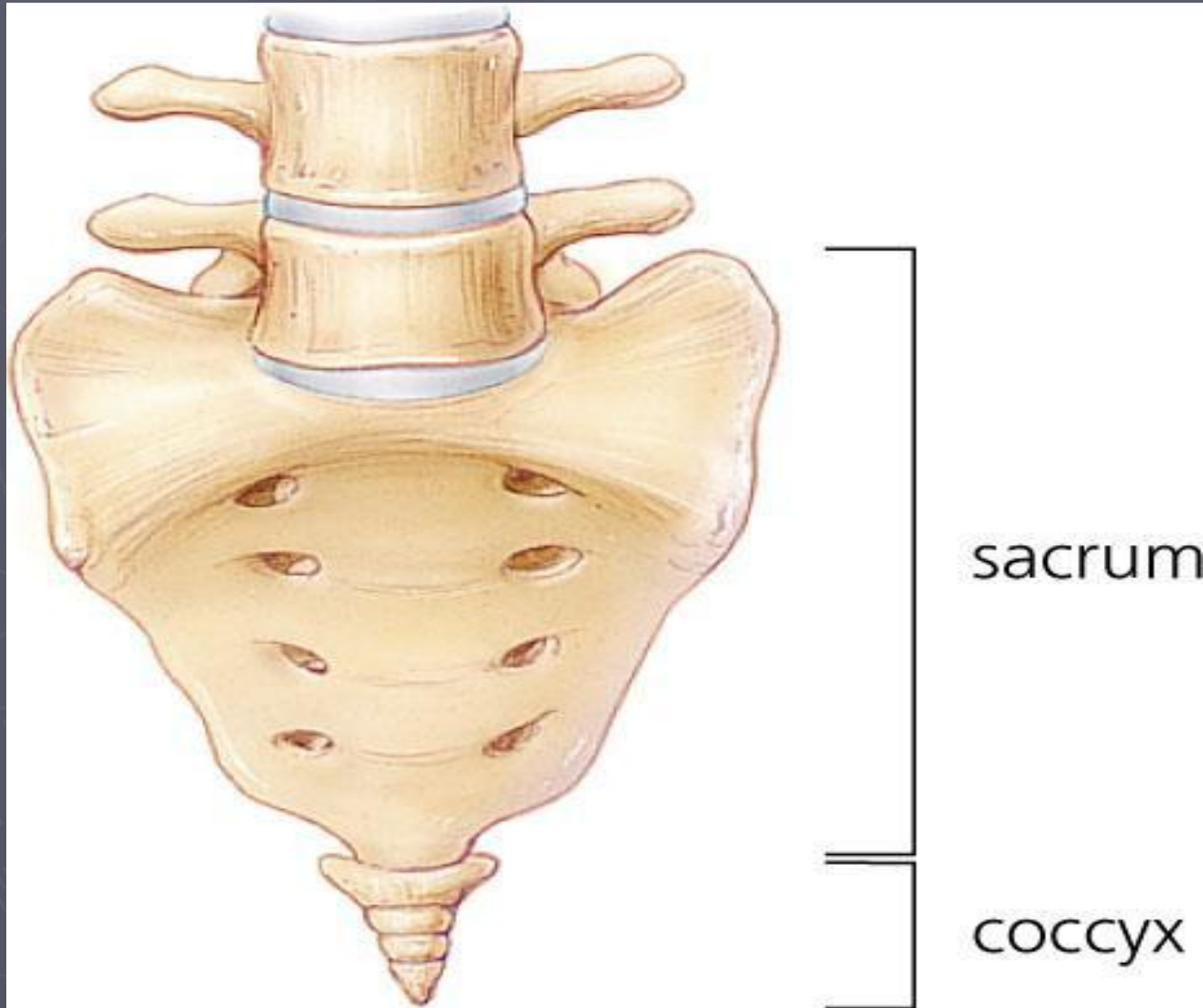
2) The **thoracic region** (what the ribs attach to)



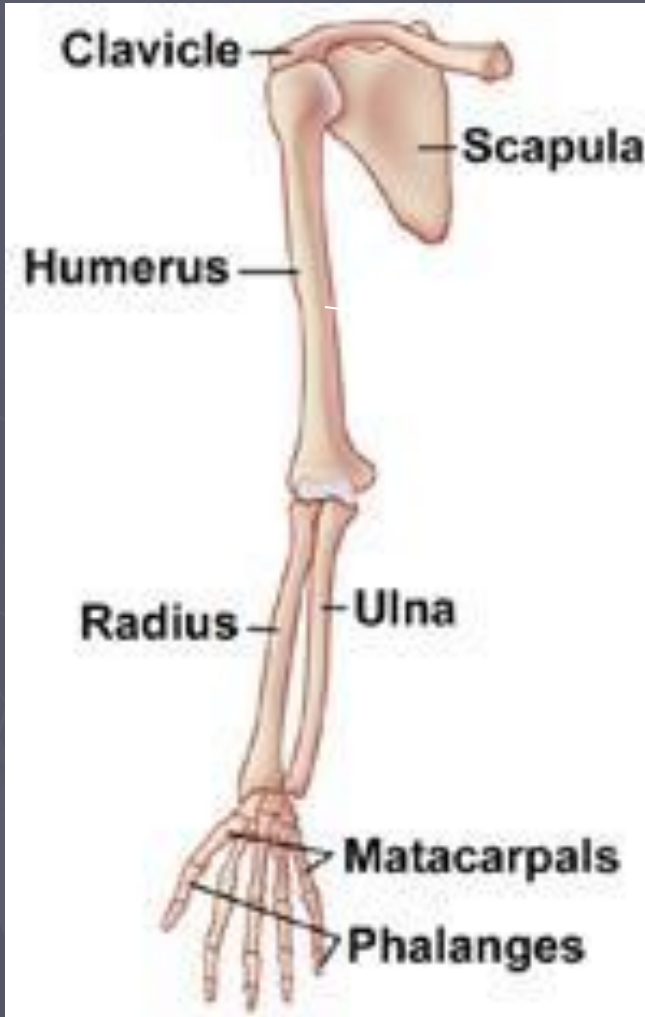
3) The **lumbar region** (the lower part of the back)



# Coccyx and Sacrum



# Humerus (Upper Arm Bone)



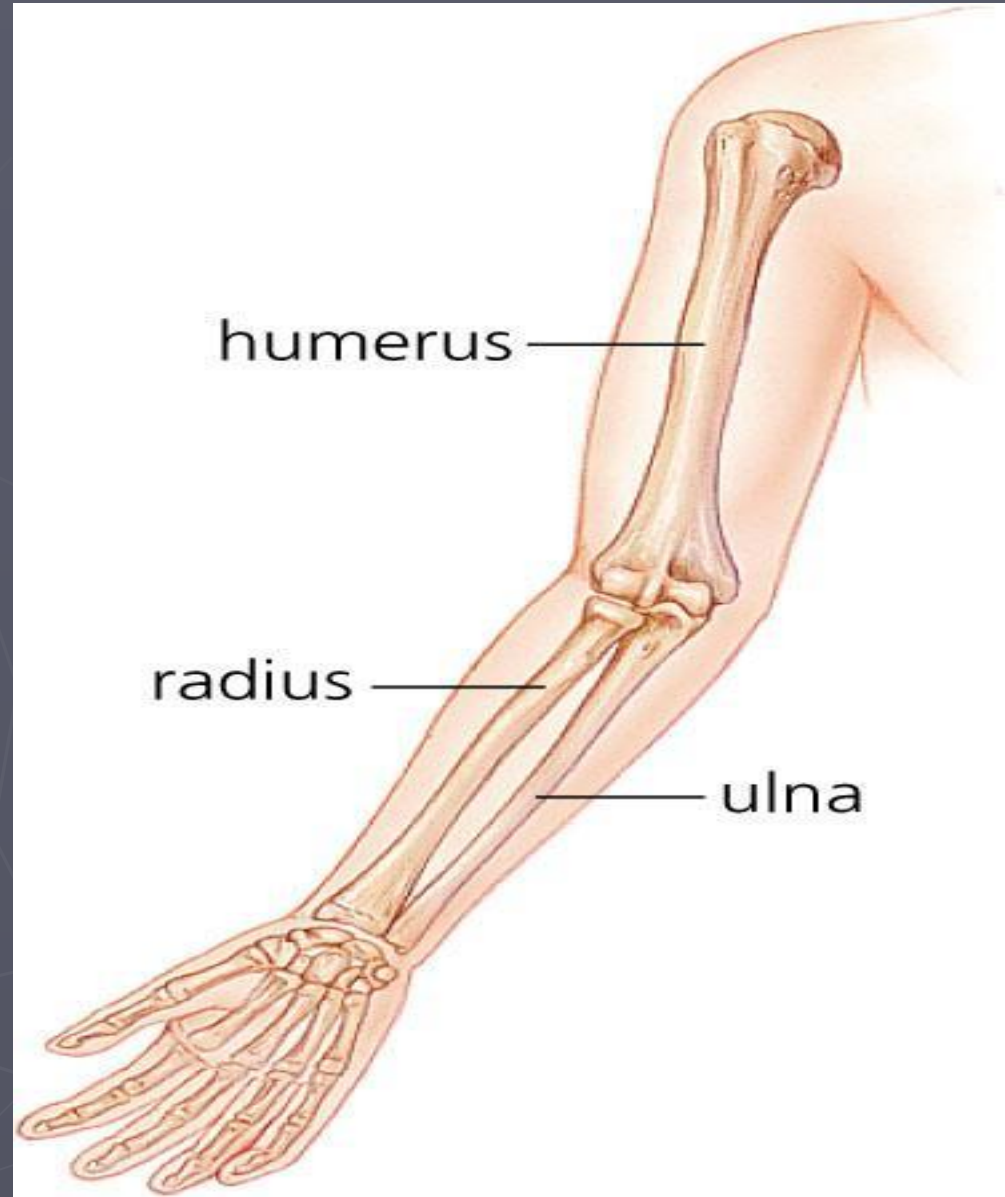


# Radius and Ulna

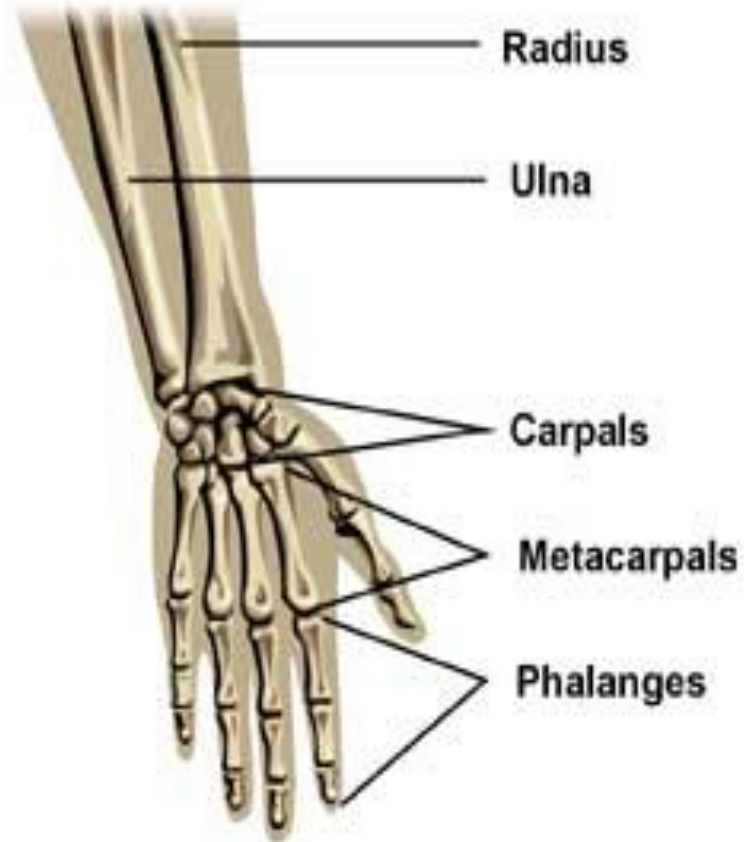
- ▶ Radius on Top



- ▶ Ulna on Bottom



# Carpals or (Wrist Bones)

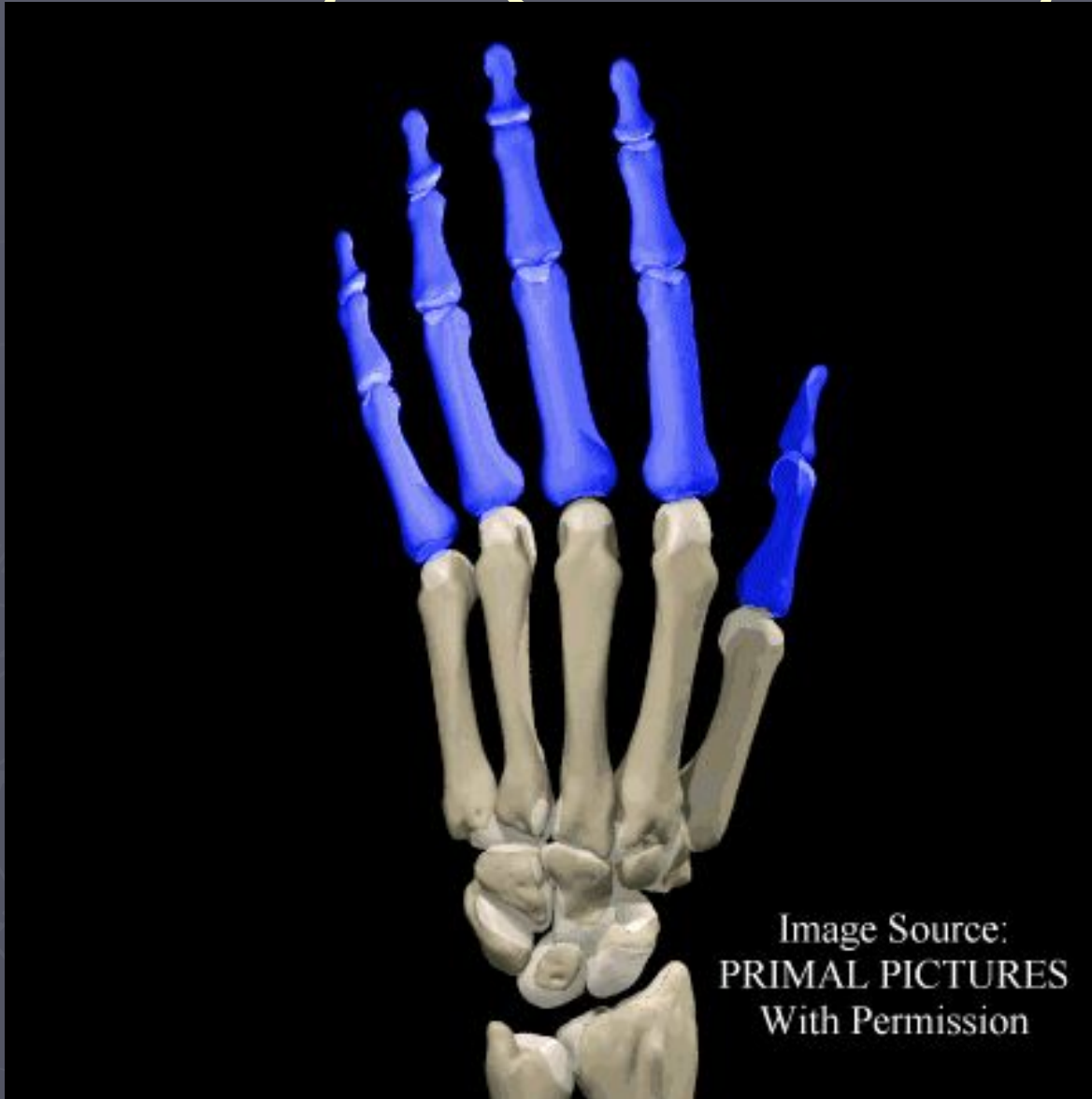


# Metacarpals (Top of Hands)

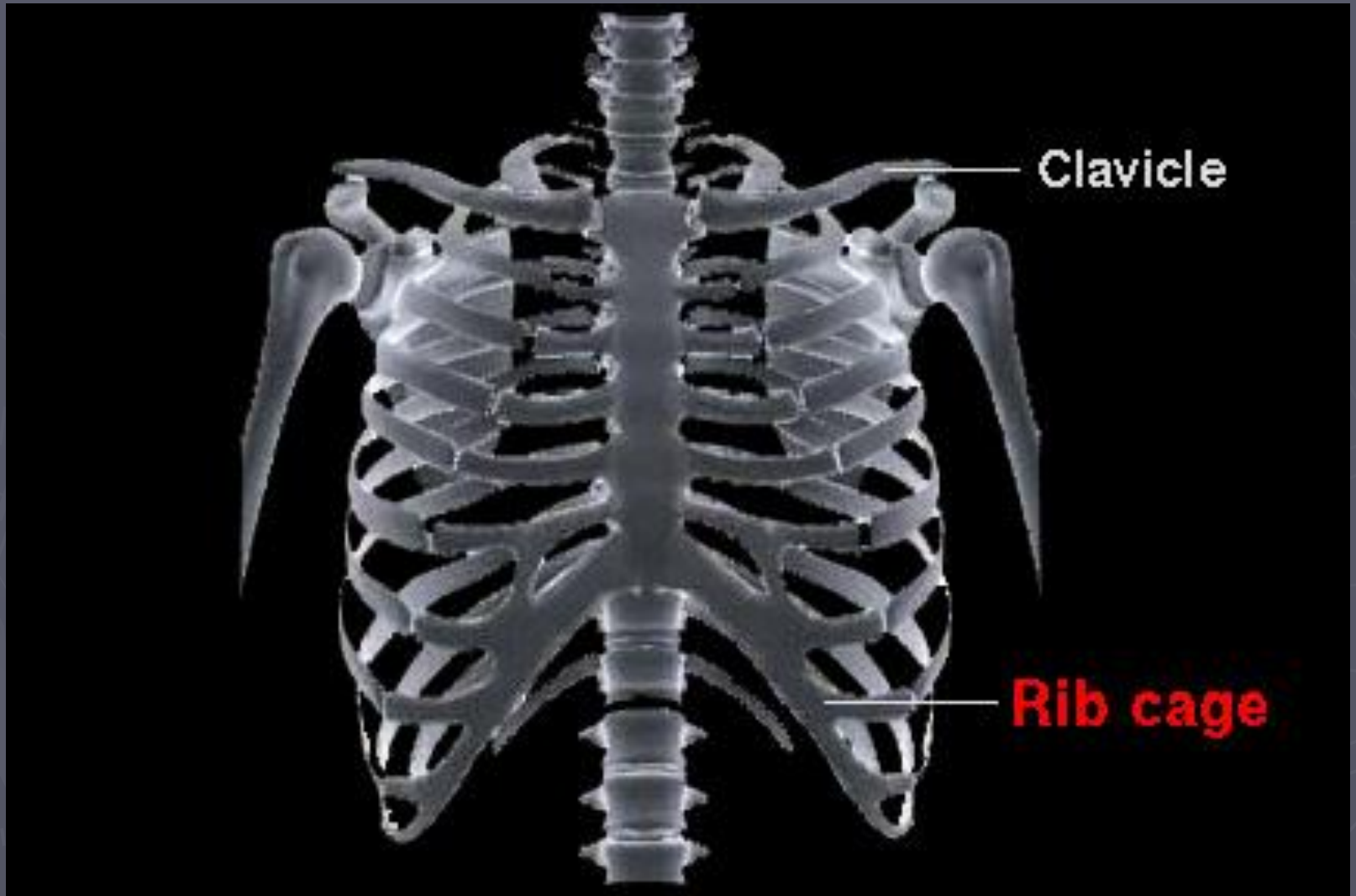


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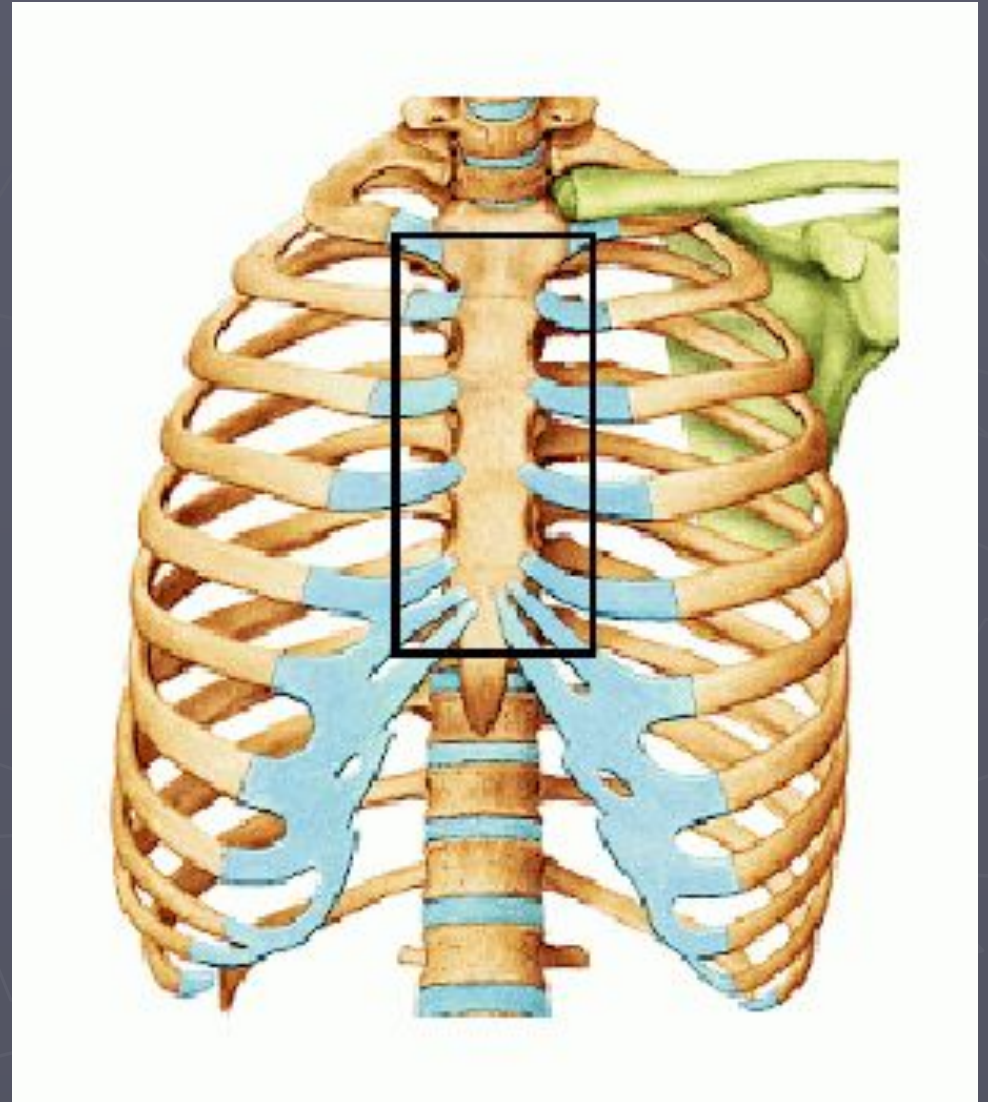
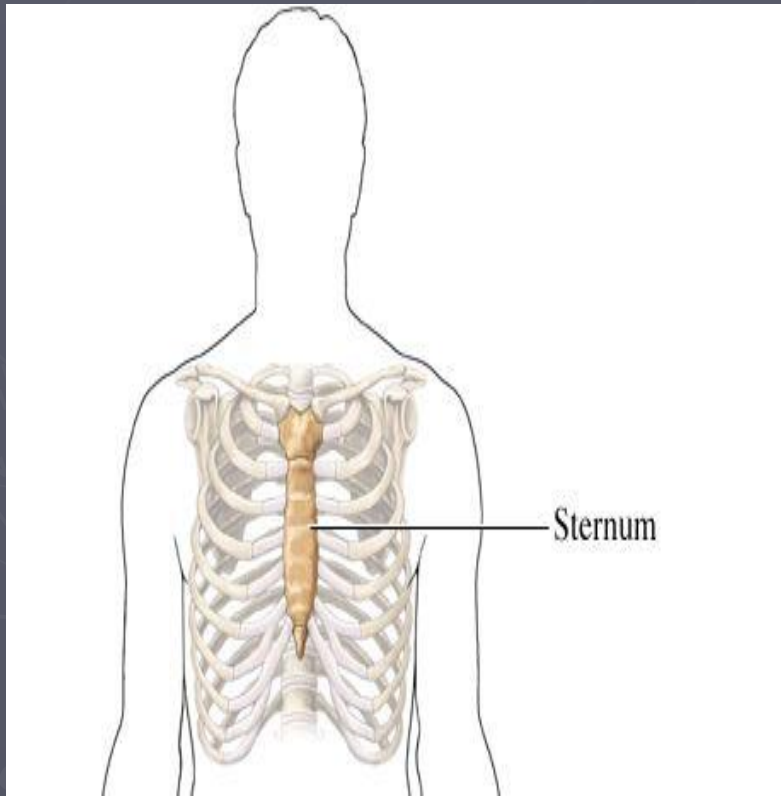
# Phalanges (Little Fingers)



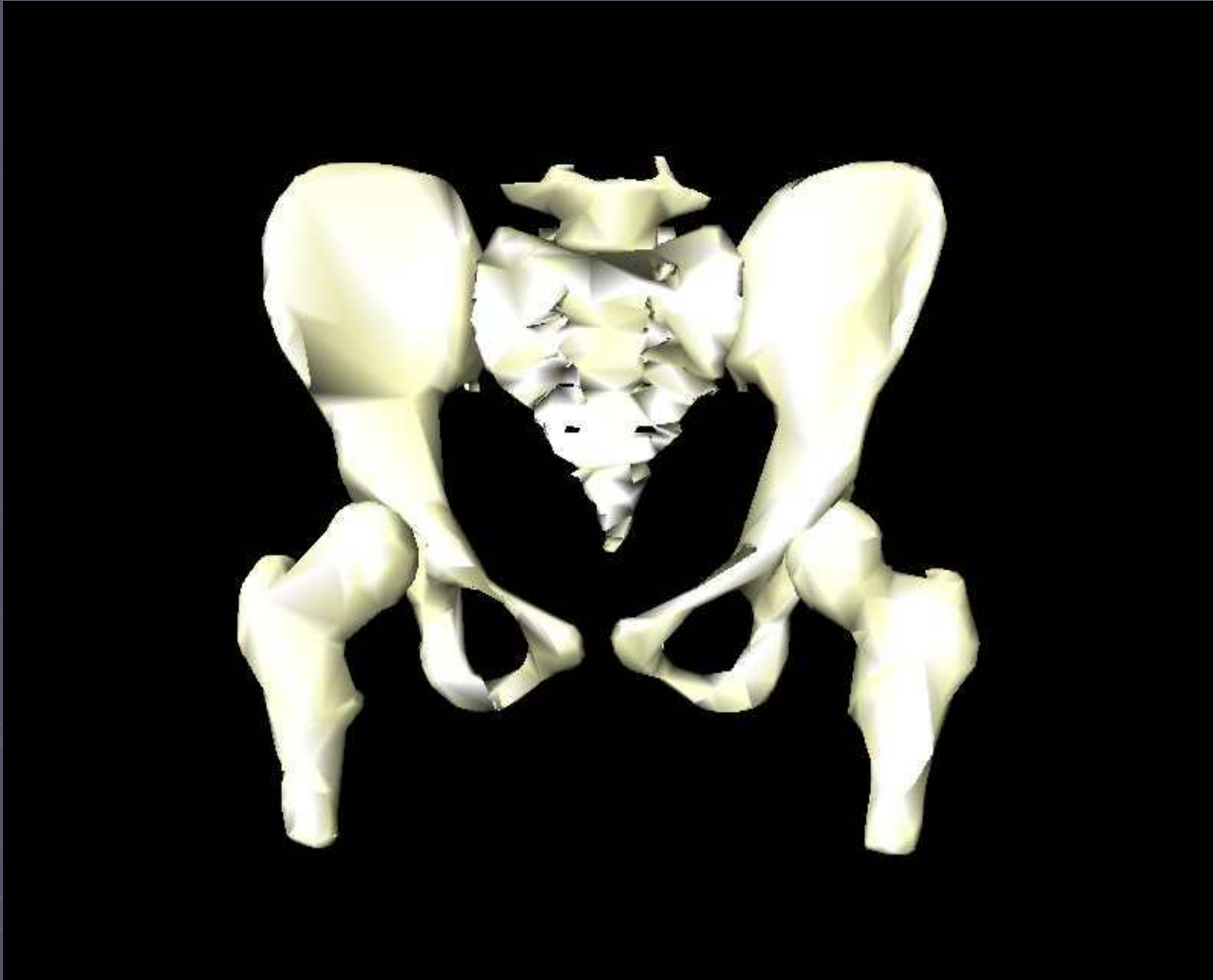
# Rib Cage



# Sternum (Breastbone)

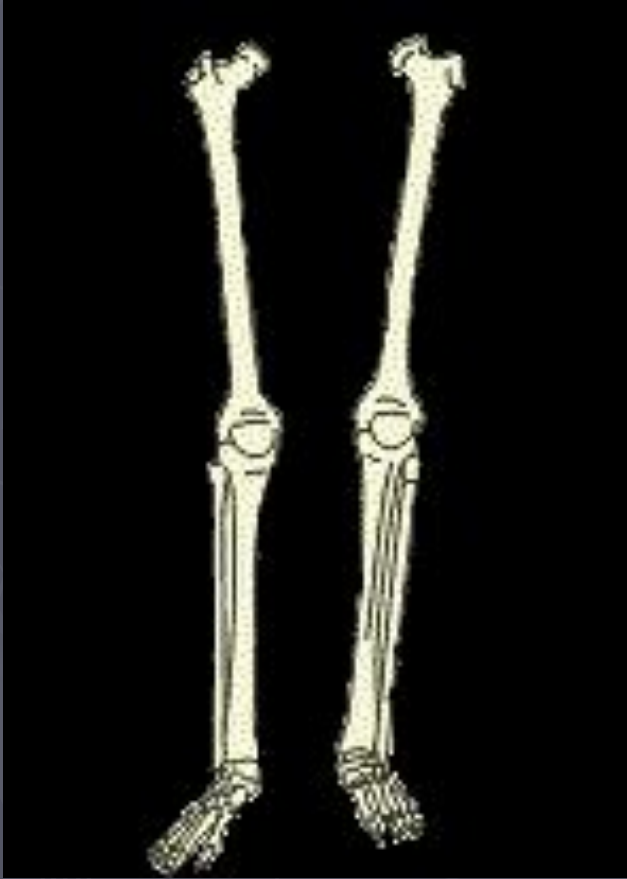


# Pelvis (Dancing Bone)



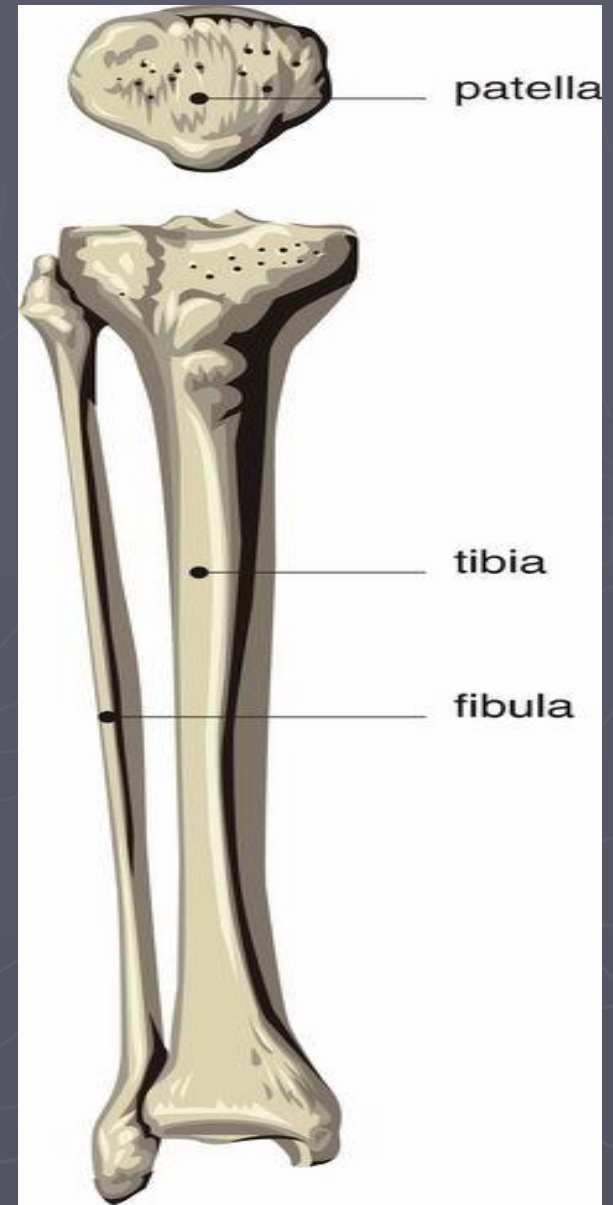
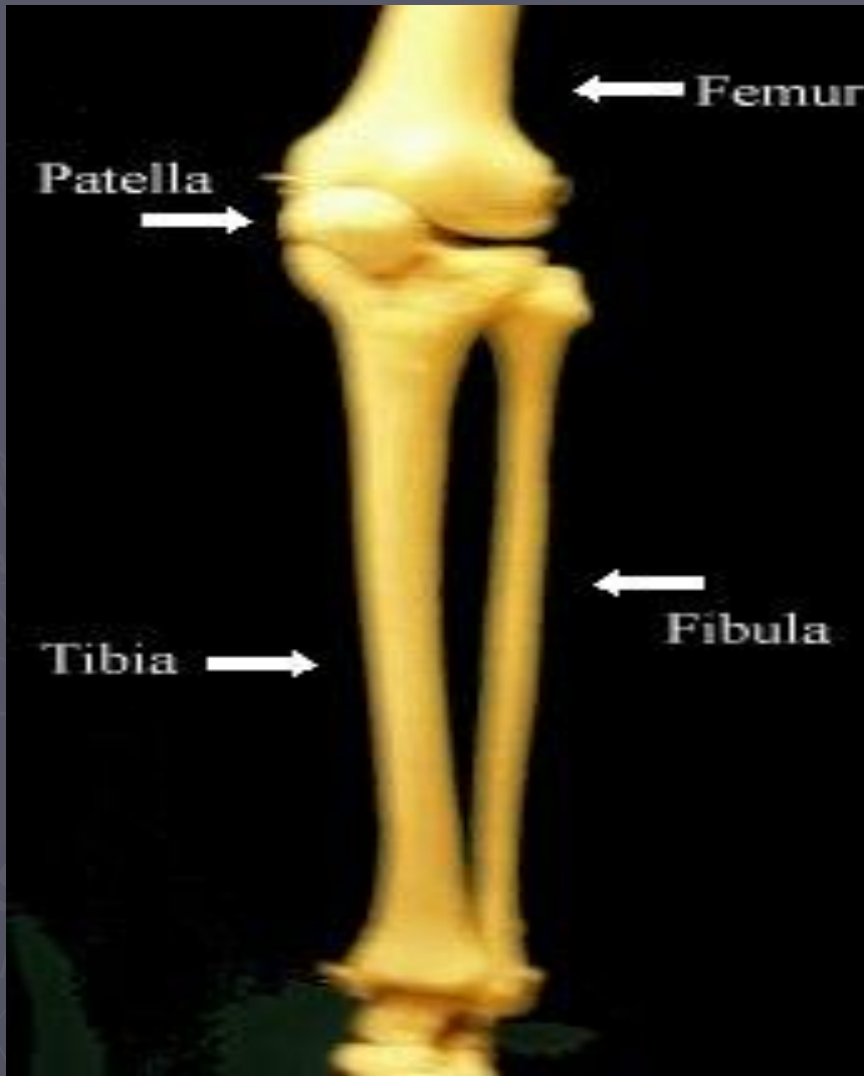
# Femur

(Largest Bone in the Body)

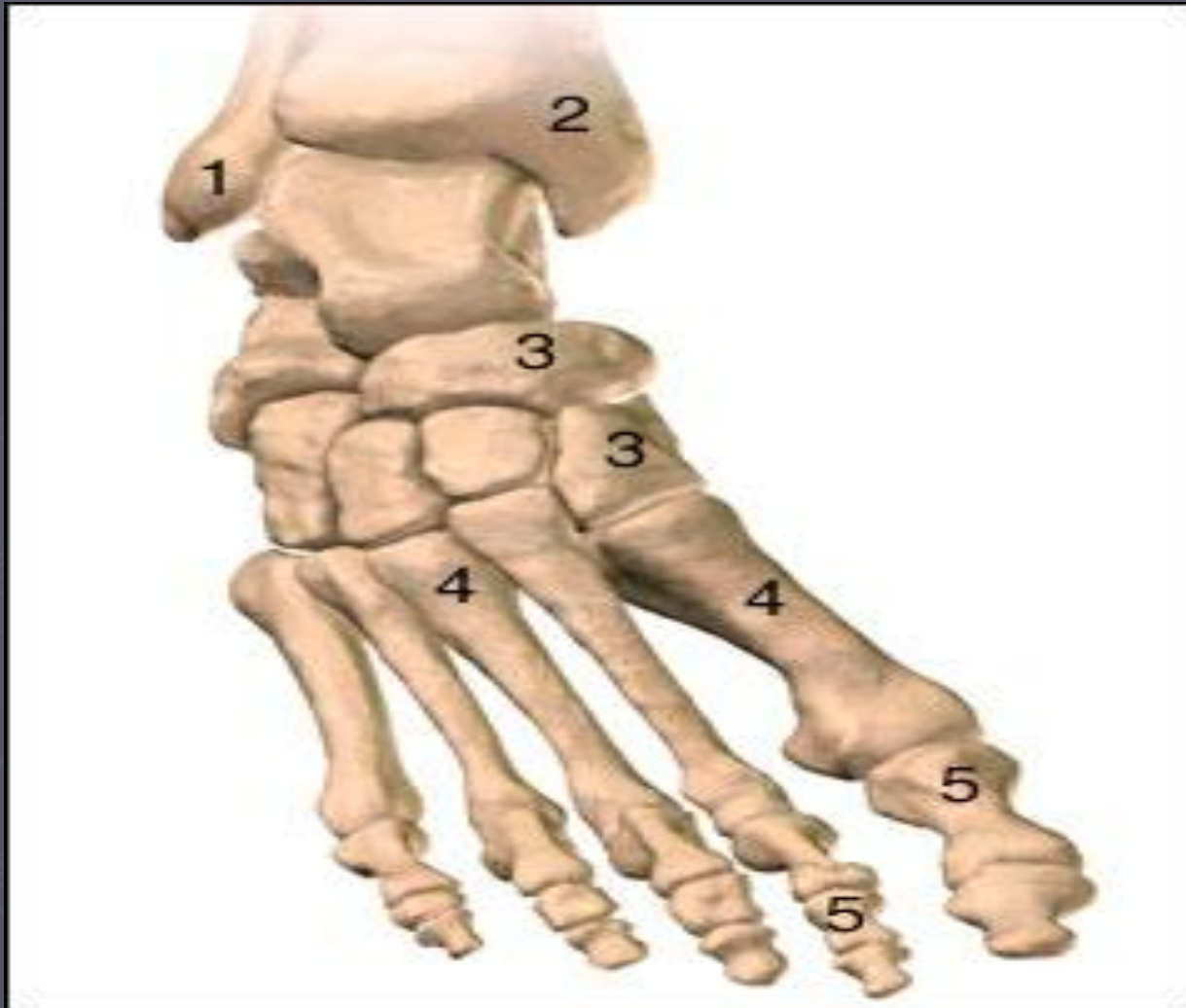




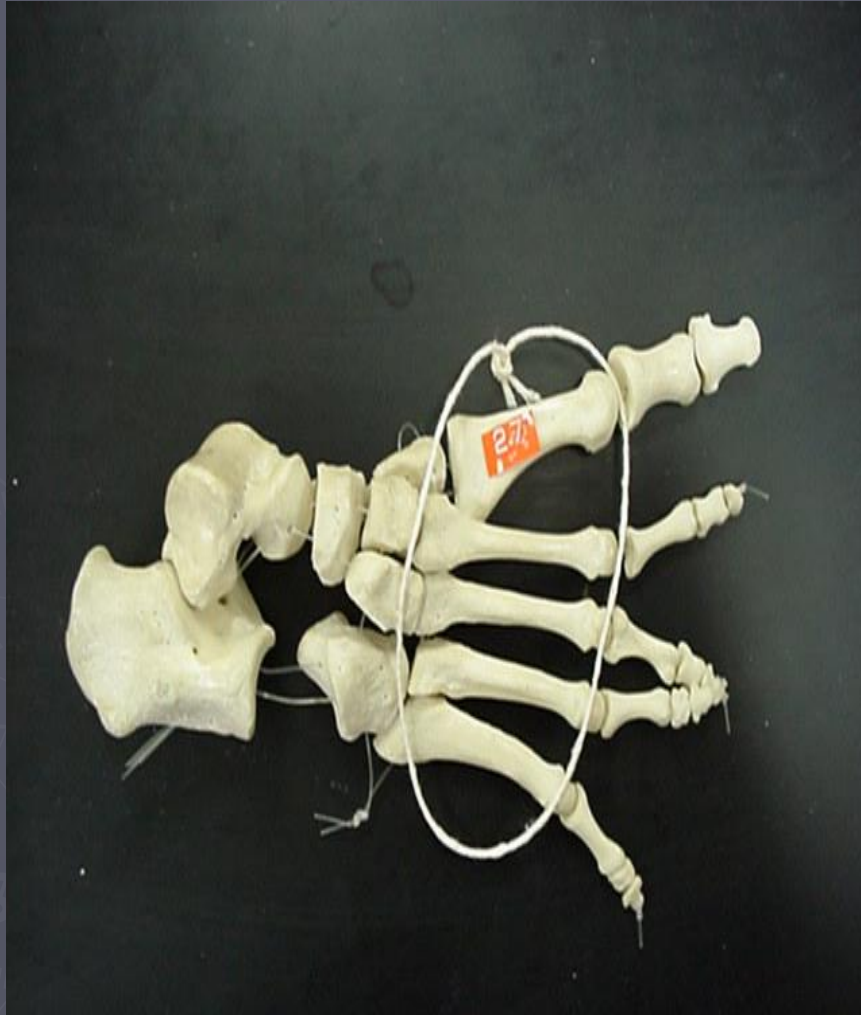
# The Tibia and Fibula



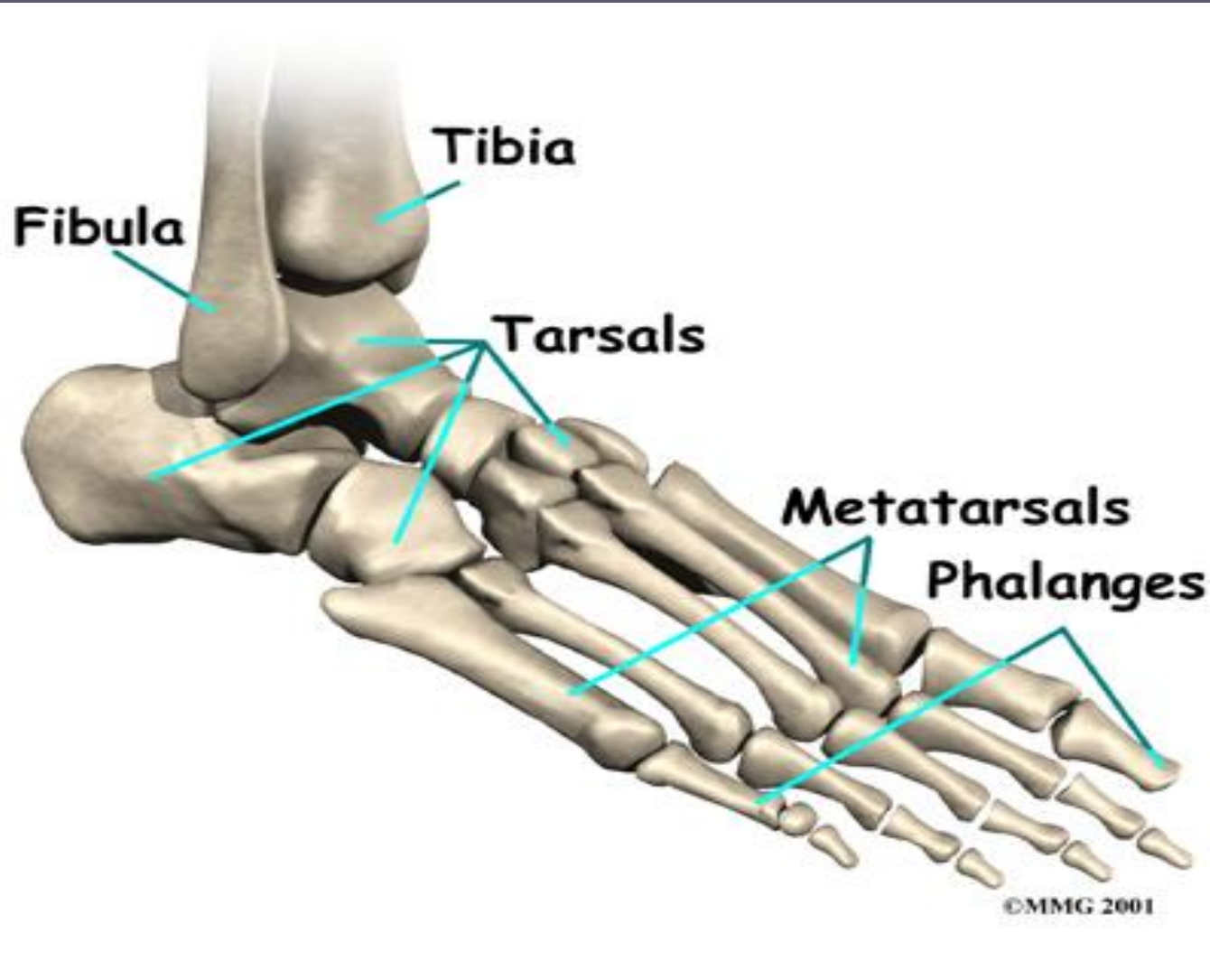
# Tarsals



# Metatarsals



# Phalanges



# Calcaneus



# Problems of the Skeletal System

- ▶ Fracture: **Break**



- ▶ Dislocation: **Out of joint**

