Bone Features

General Anatomy

What is Anatomy?

- Human anatomy is the branch of anatomy that focuses specifically on the structure and organization of the human body. It involves the study of the various systems, organs, and tissues that make up the human body, including their relationships and functions. Human anatomy can be divided into several areas:

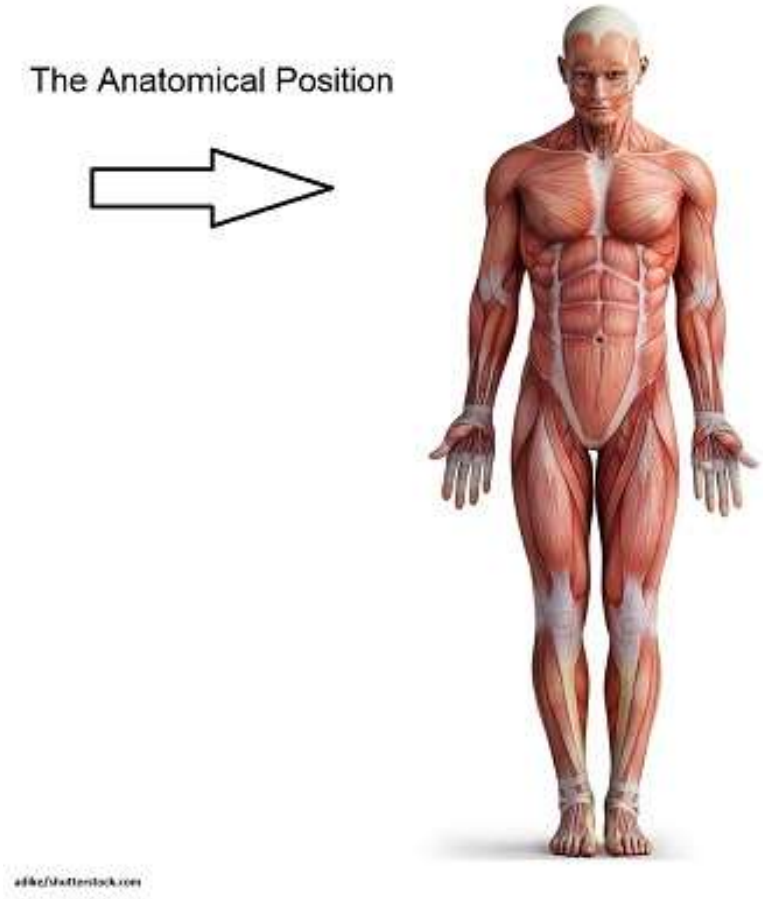
1. **Gross Anatomy:** Examination of structures visible to the naked eye, such as organs and organ systems.
2. **Microscopic Anatomy:** Study of tissues and cells using microscopes, often involving histology.
3. **Developmental Anatomy (Embryology):** Exploration of human development from fertilization through growth and maturation.

- Understanding human anatomy is crucial in fields like medicine, healthcare, and biology, as it provides foundational knowledge necessary for diagnosing diseases, performing surgical procedures, and understanding how the body functions as a whole.

How to live with anatomy without forgetting what you studied for the 1000th time??

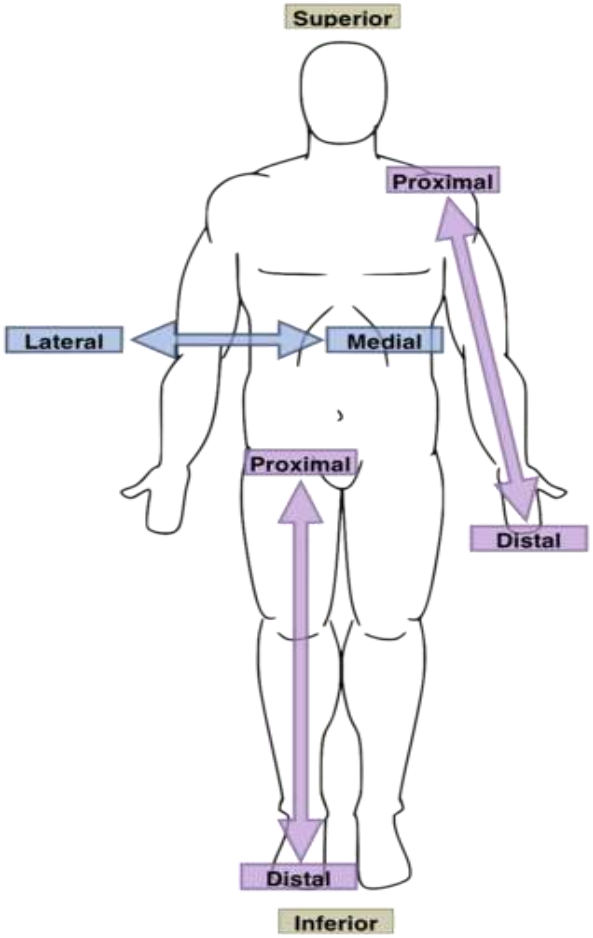
- General rule of thumb :
- Anatomy is all about photomemory ,so if you want to recall what you studied , start with the image then comes the text .

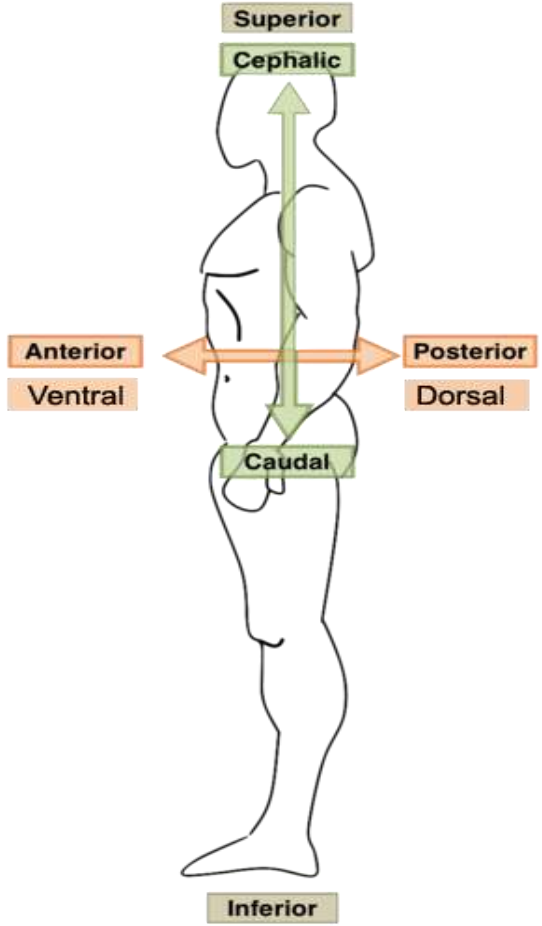
Anatomical postition

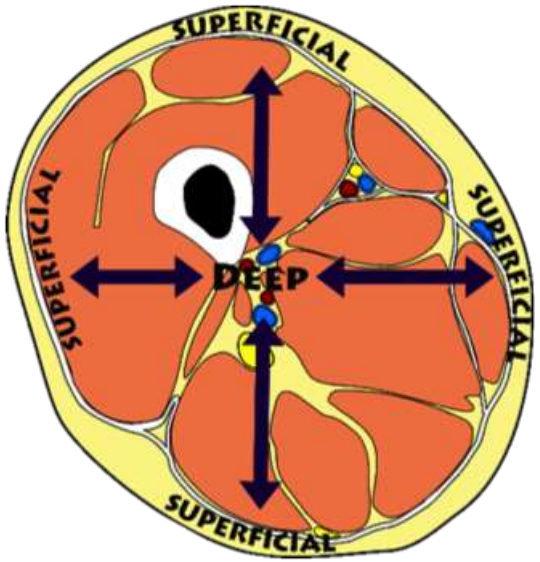


Always study the directions and relations when the body is in this position.

Medical directions:

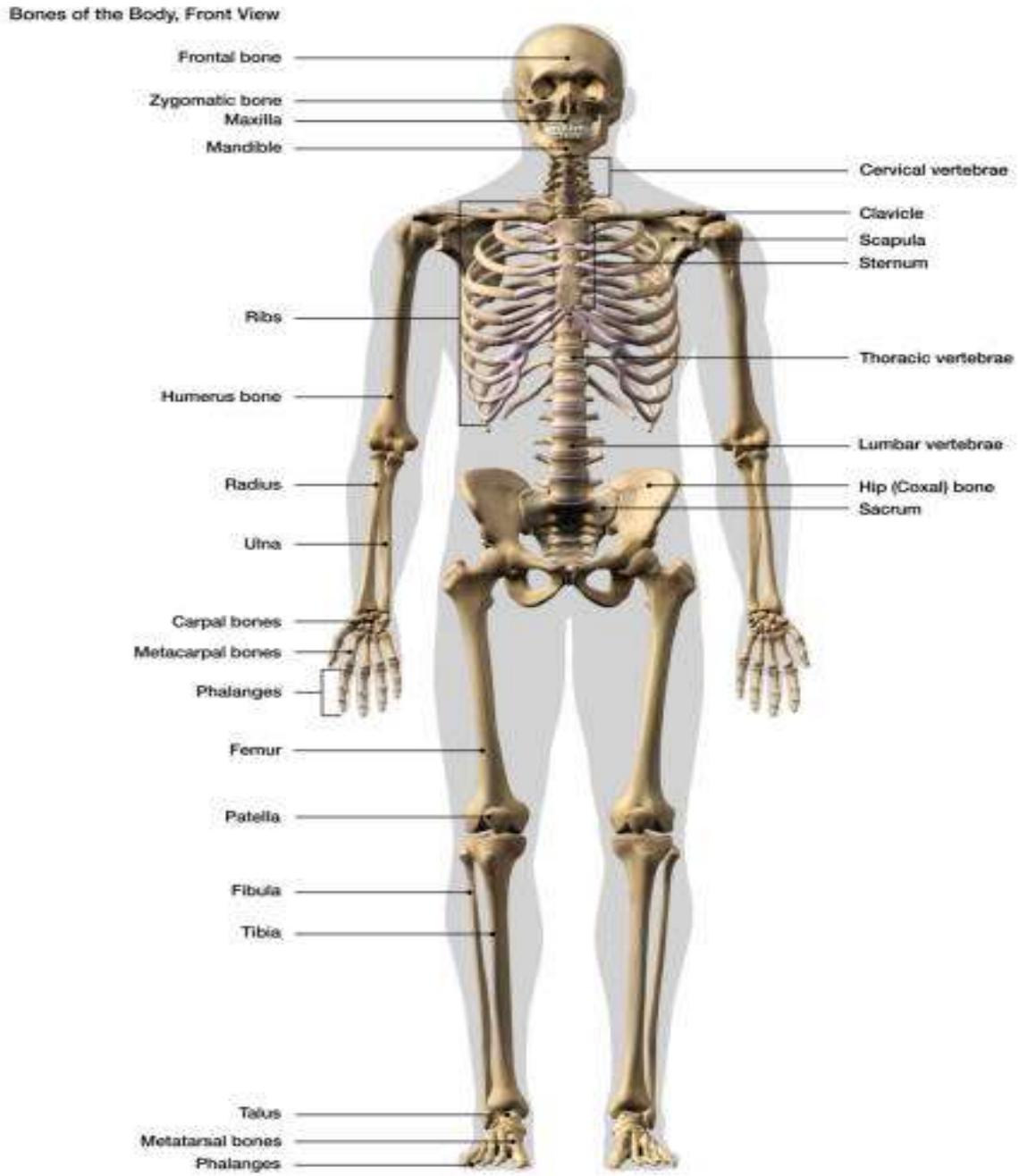




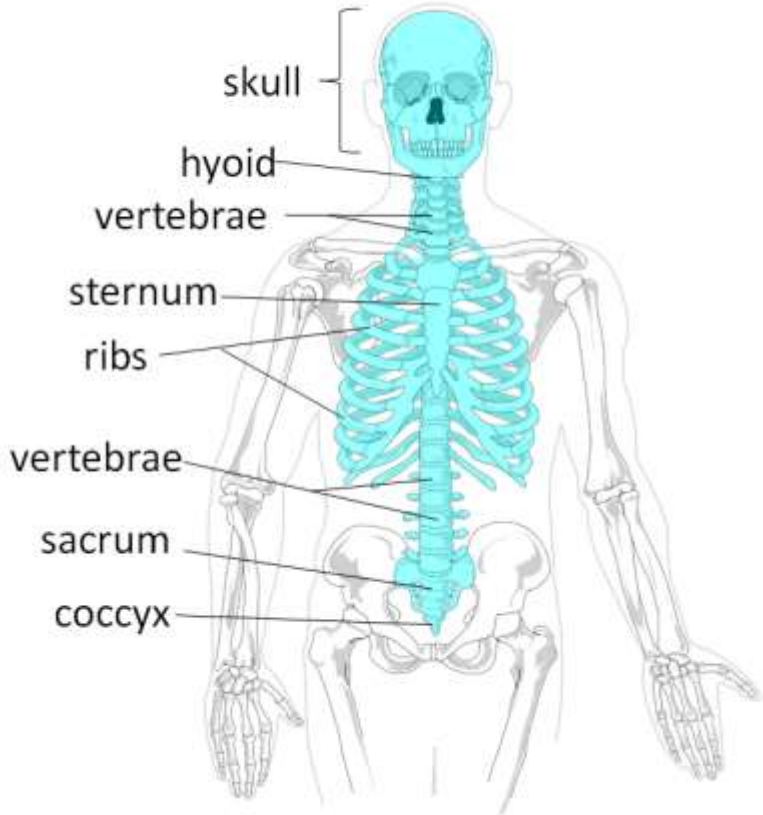


Body bones:

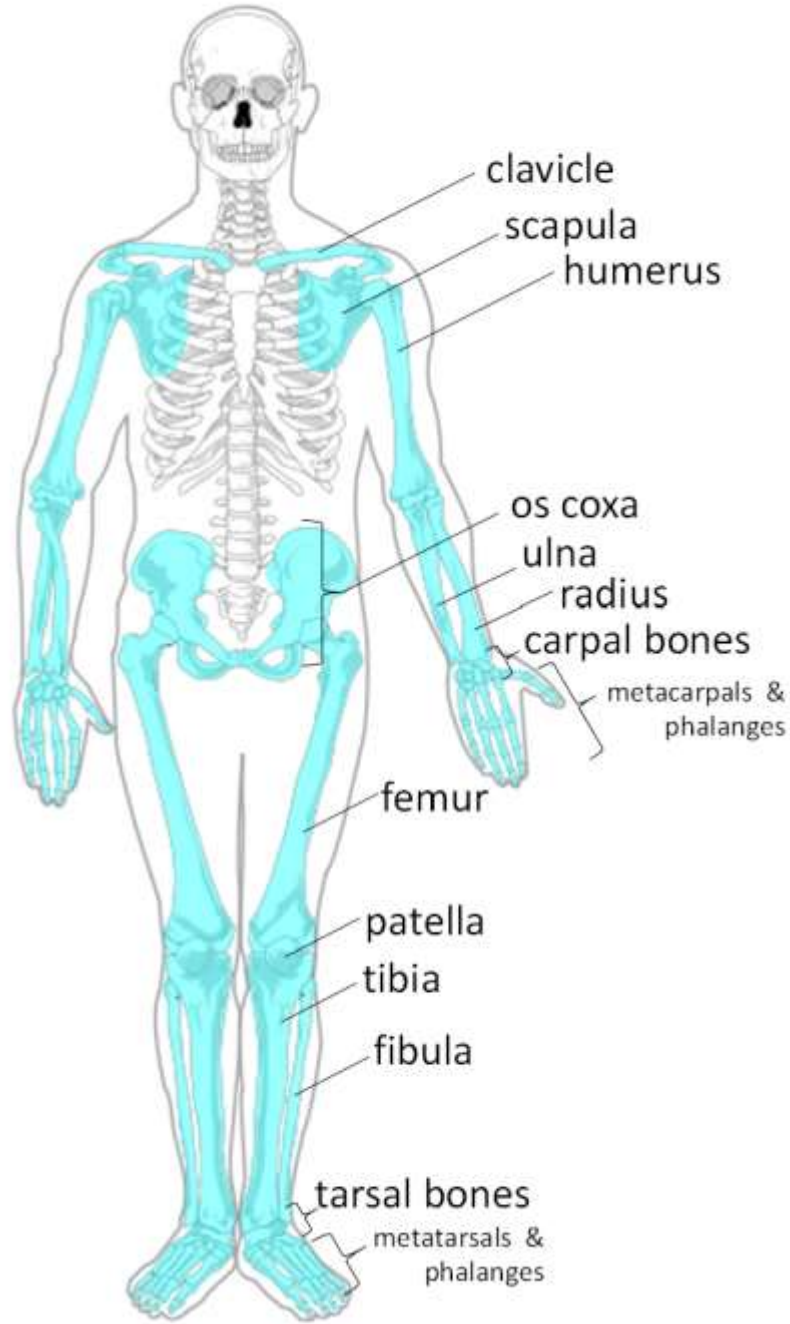
the human body has 206 bones. You should know their names.

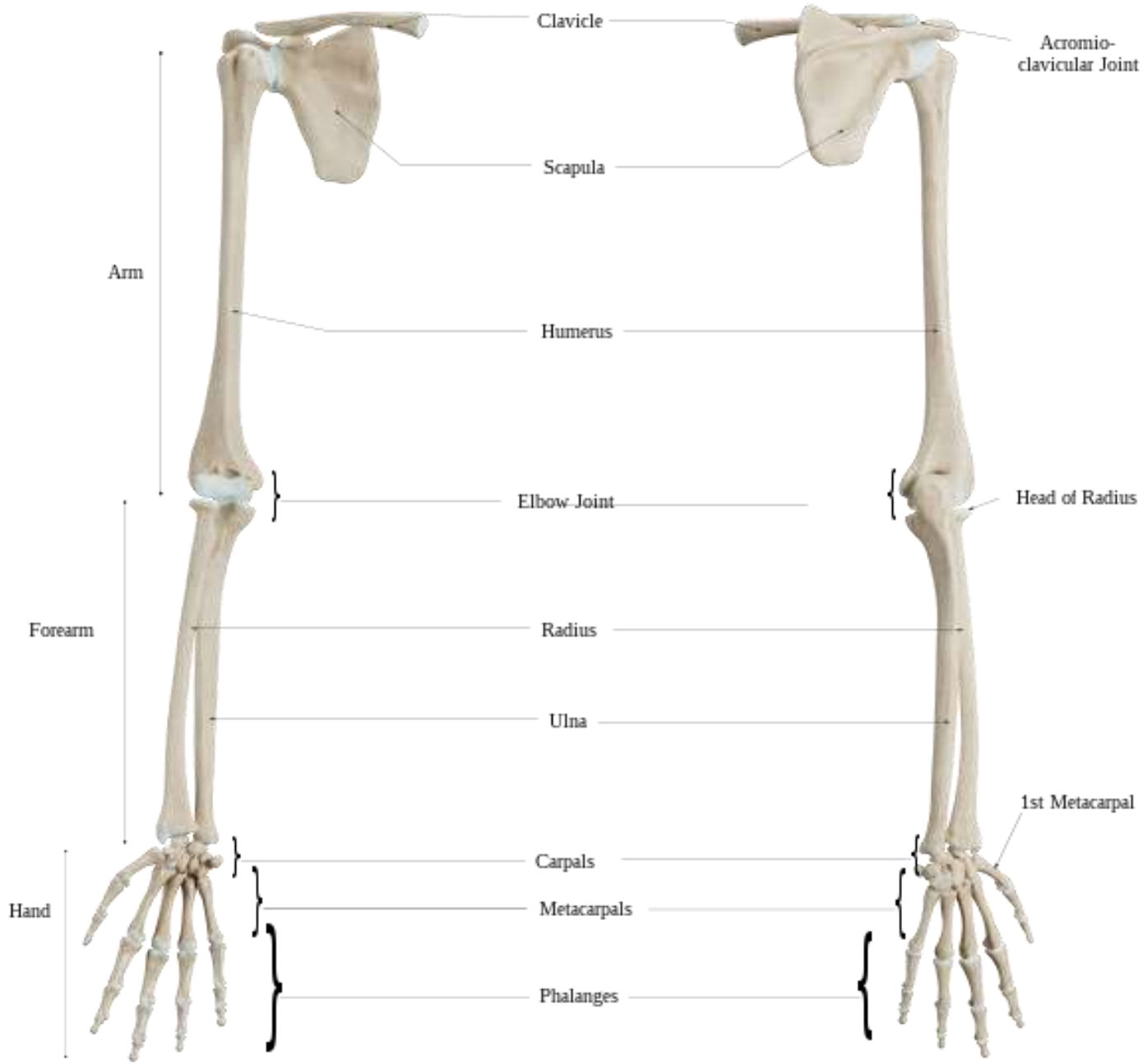


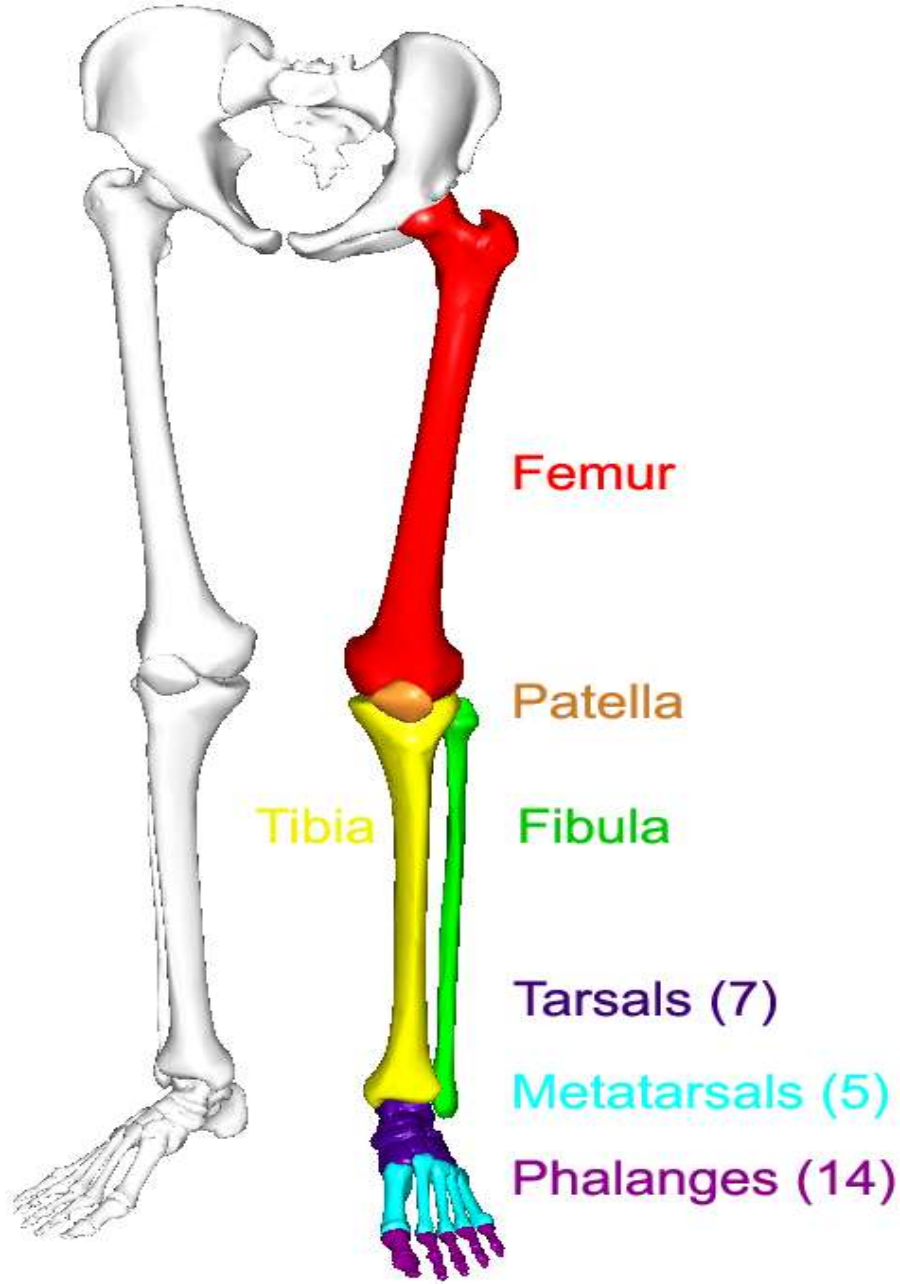
Axial Skeleton

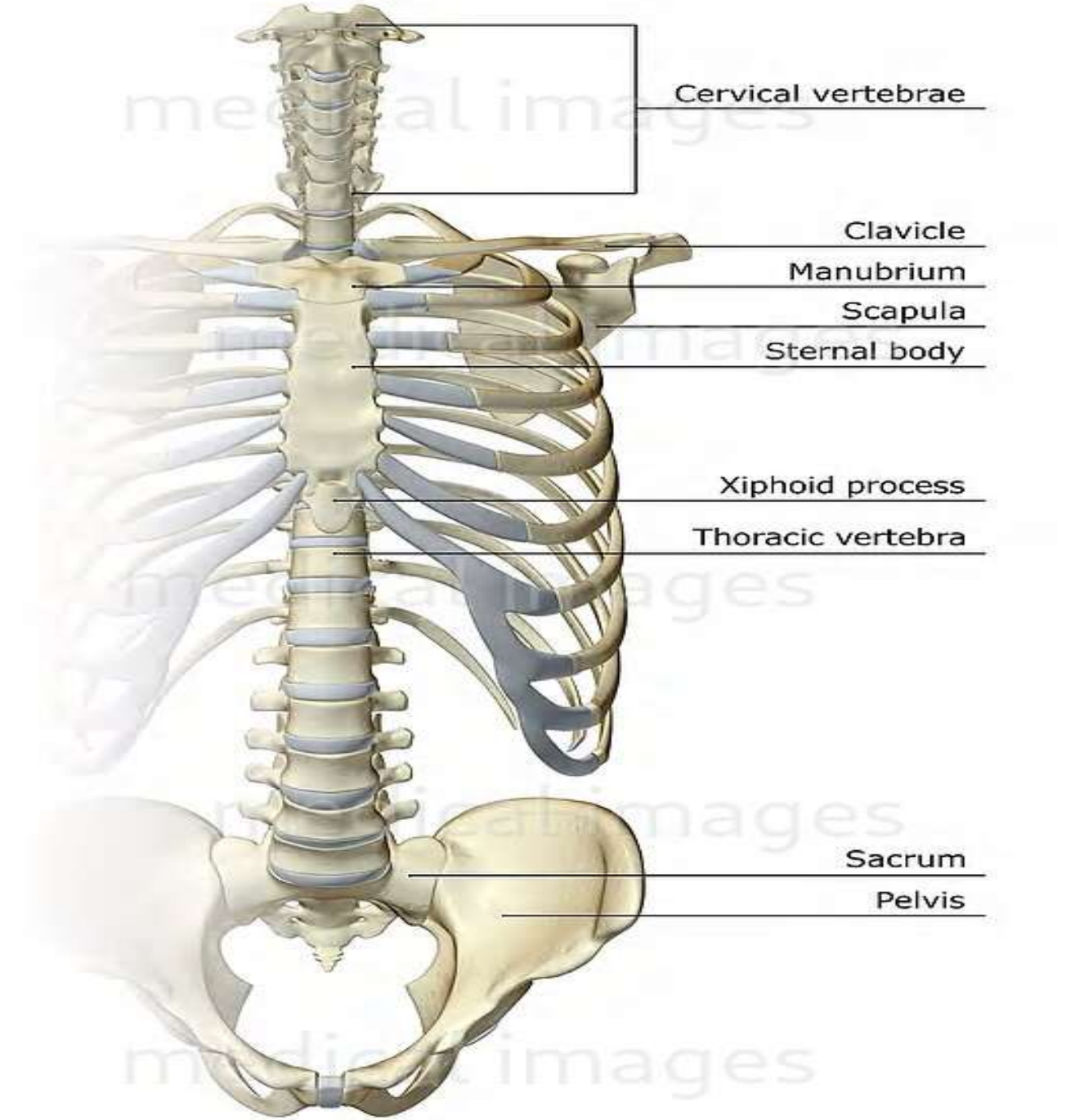


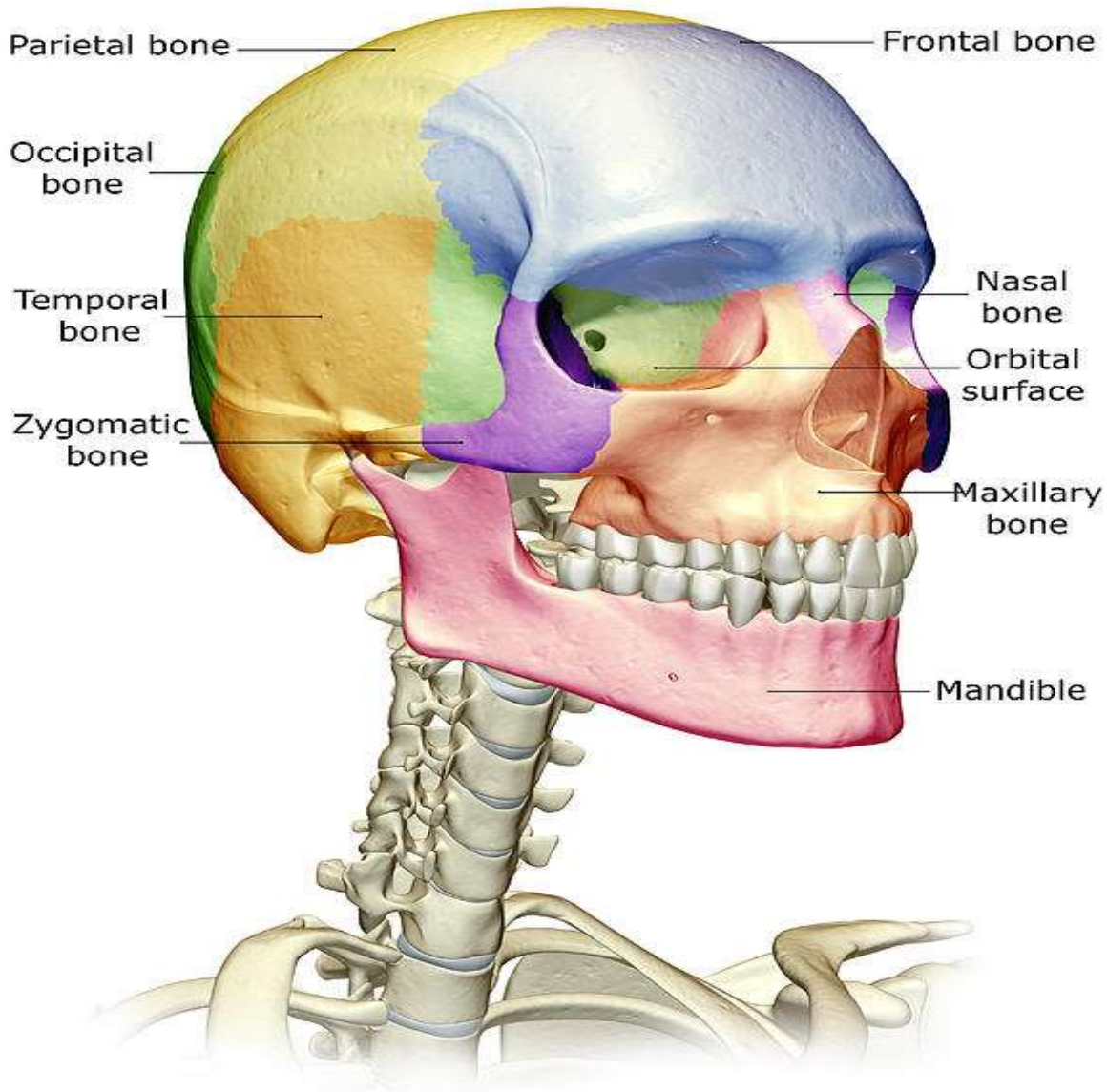
Appendicular Skeleton



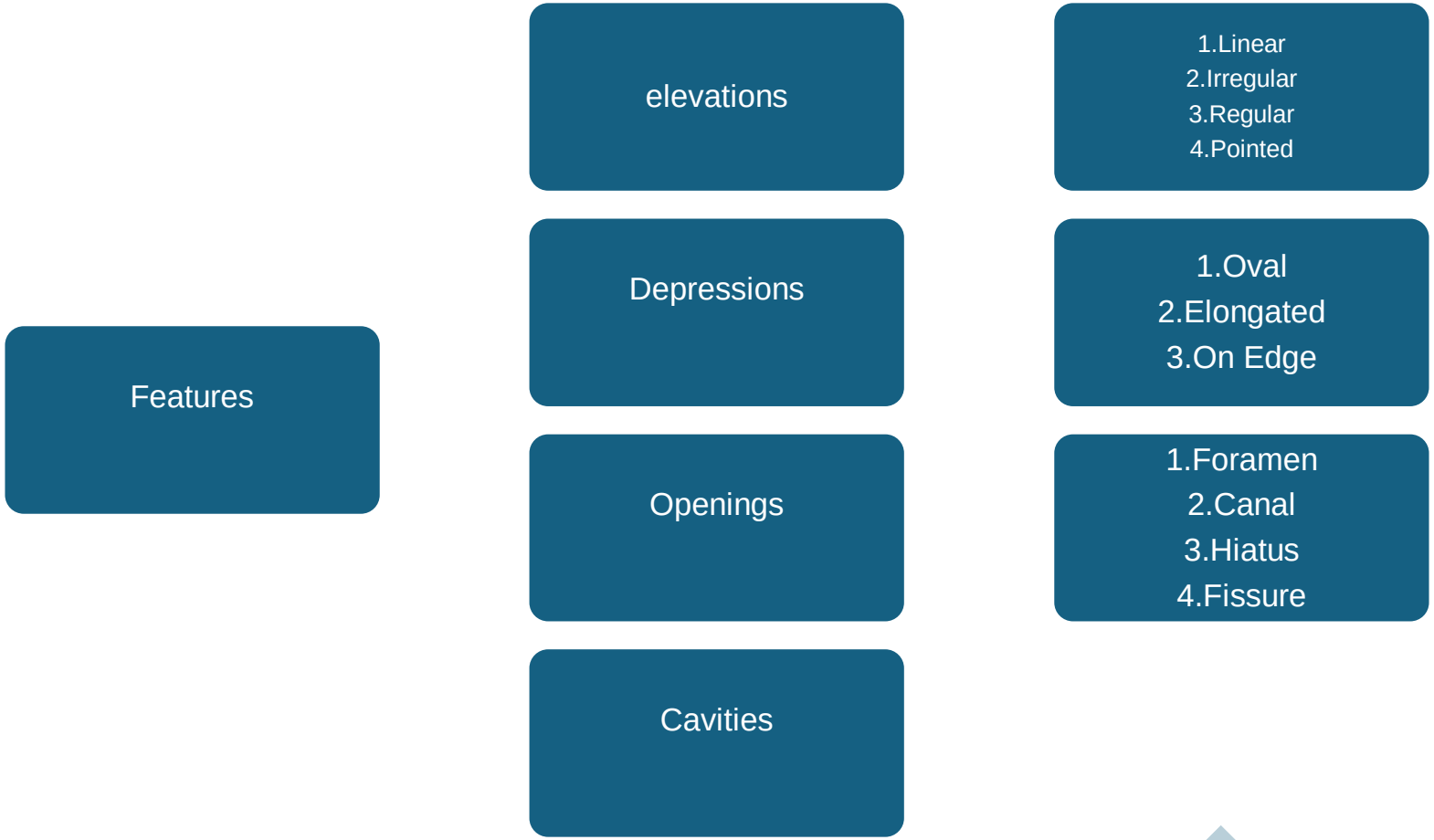

Clavicle
Acromio-
clavicular Joint
Scapula
Arm
Humerus
Elbow Joint
Head of Radius
Forearm
Radius
Ulna
1st Metacarpal
Carpals
Hand
Metacarpals
Phalanges
ANTERIOR VIEW
POSTERIOR VIEW


Femur
Patella
Tibia
Fibula
Tarsals (7)
Metatarsals (5)
Phalanges (14)



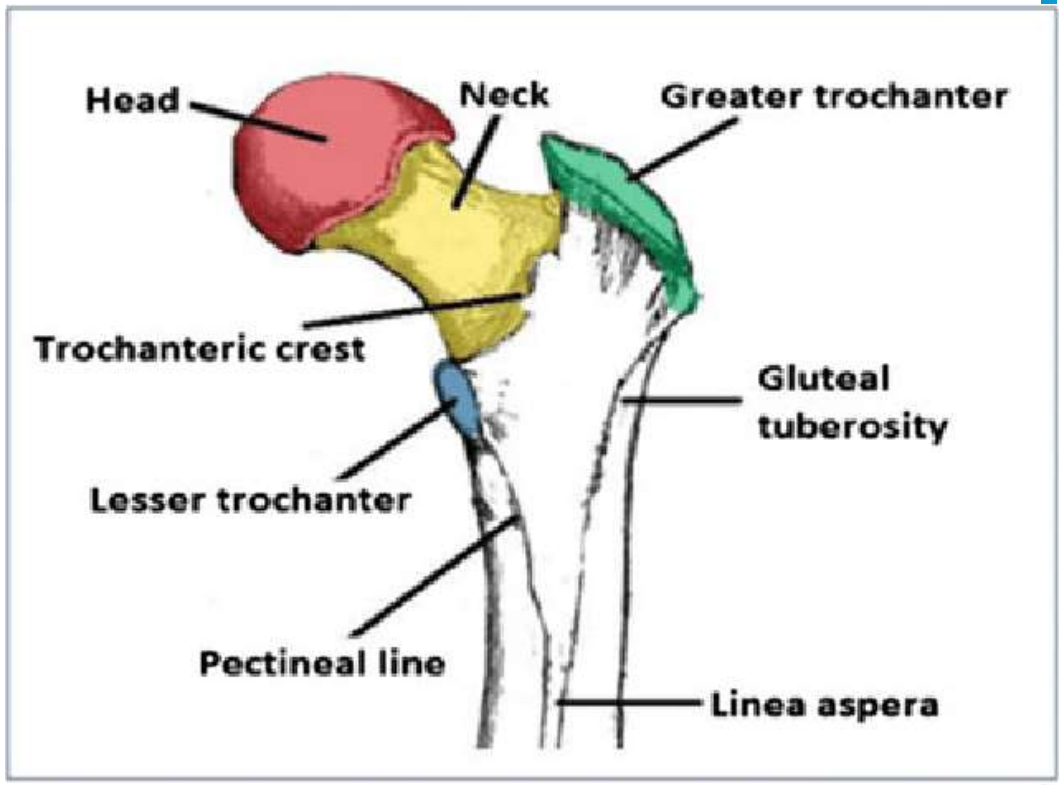

Parietal bone
Frontal bone
Occipital bone
Temporal bone
Nasal bone
Orbital surface
Zygomatic bone
Maxillary bone
Mandible

Bone Features

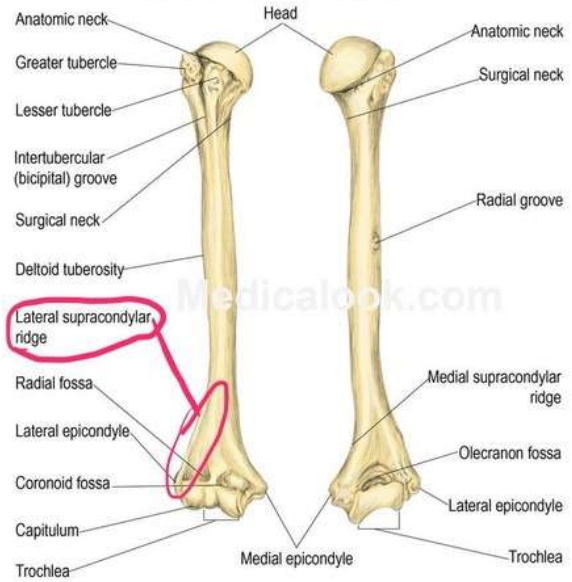


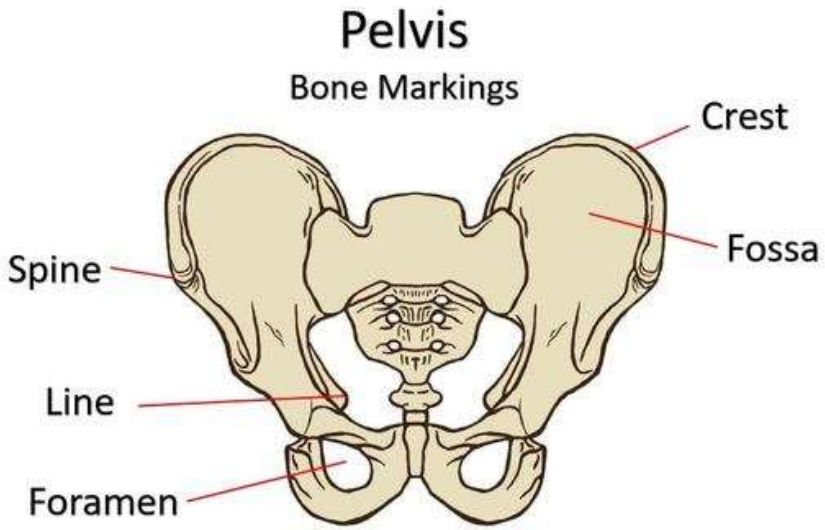
Elevations
linear

1. Line
2. Lip
3. Ridge(sharp)
4. Crest(blunt)



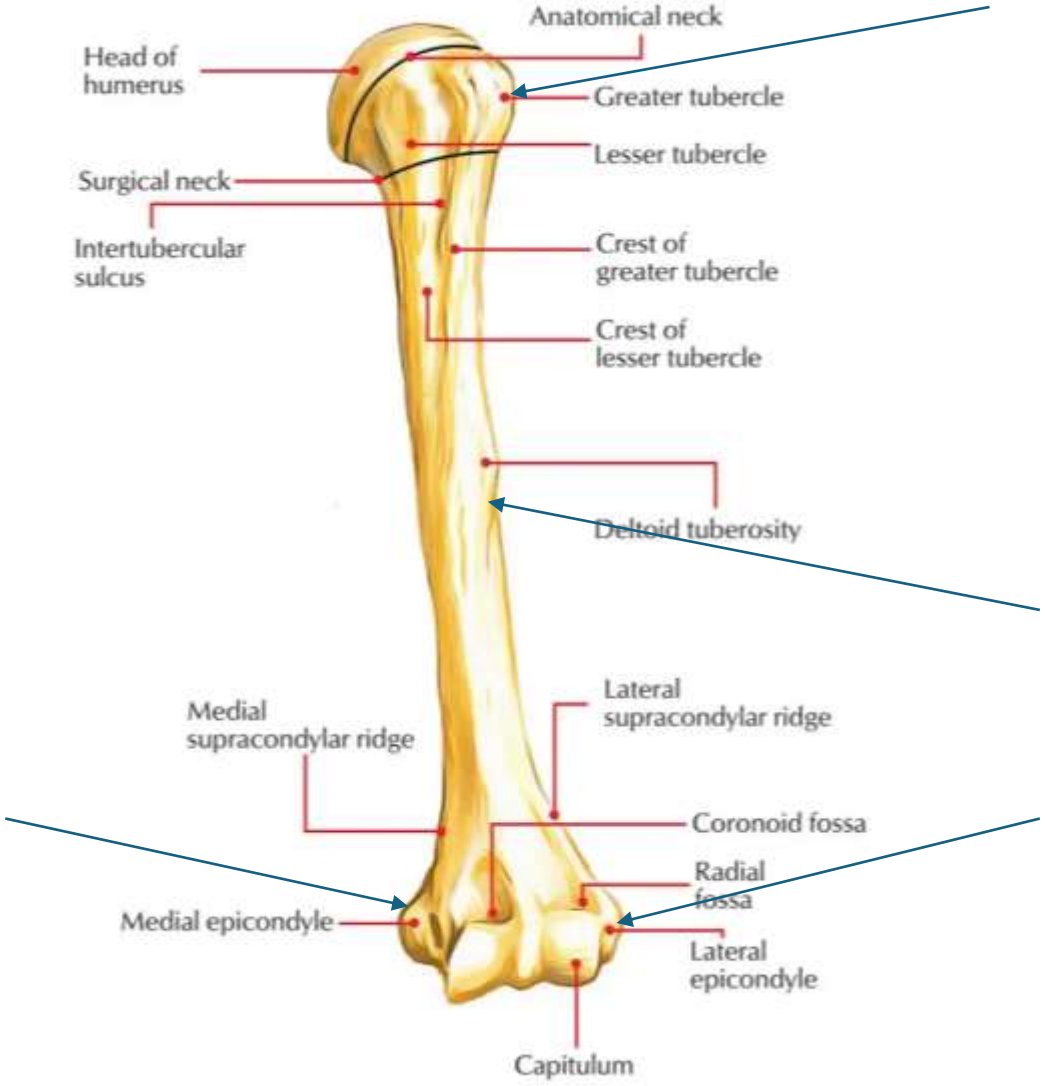
Elevations examples



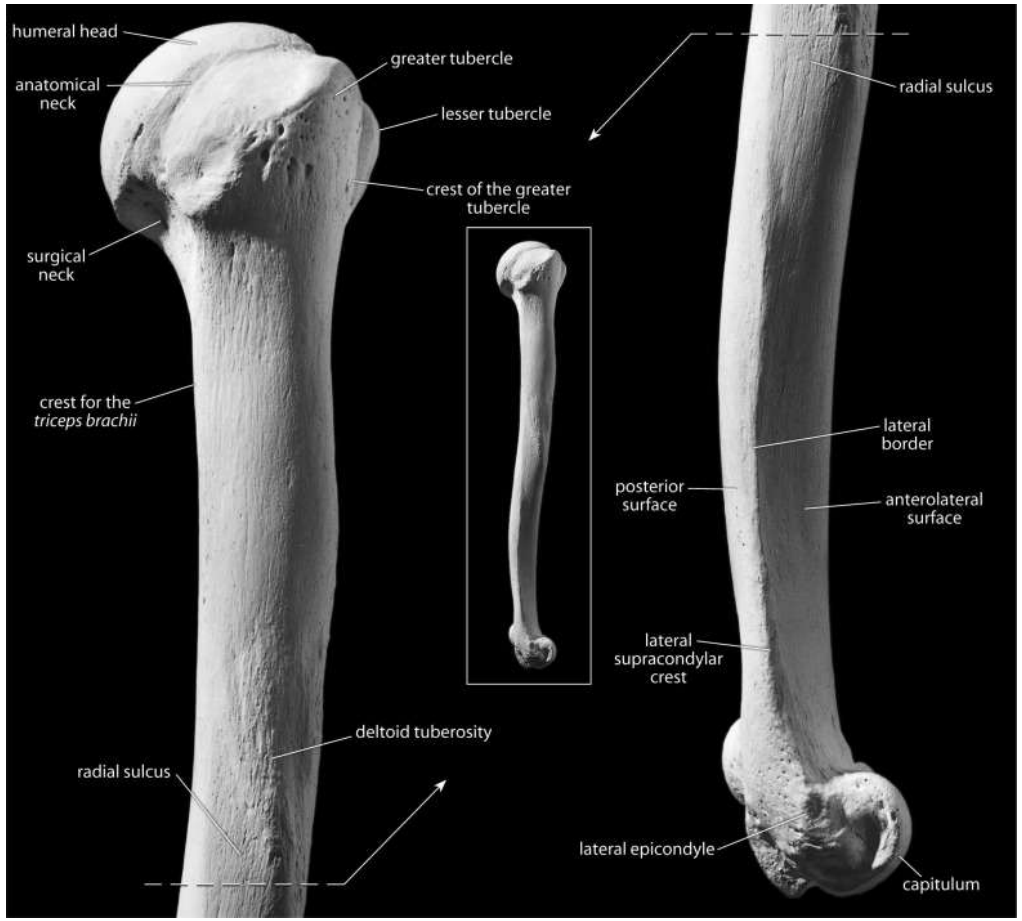


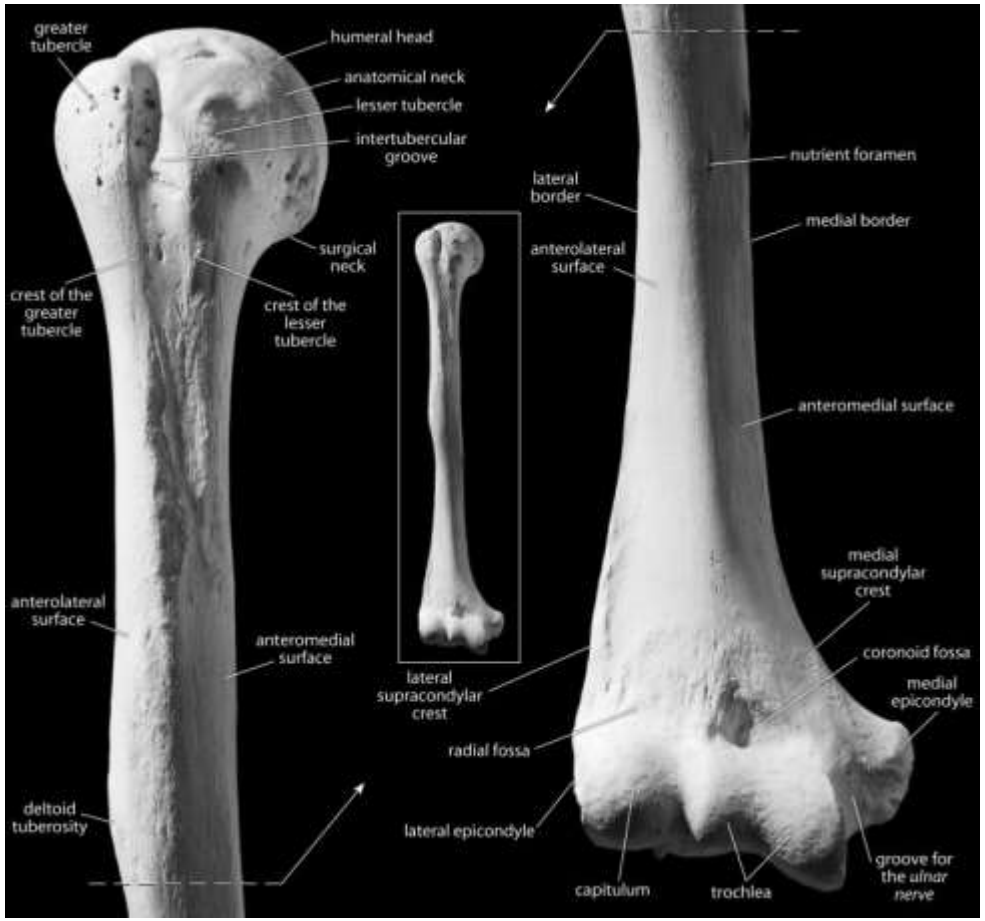
Elevations irregular

1. Tubercle (small)
2. Tuberosity(medium)
3. Trochanter(large)
4. Epicondyle and malleolus



Elevations example

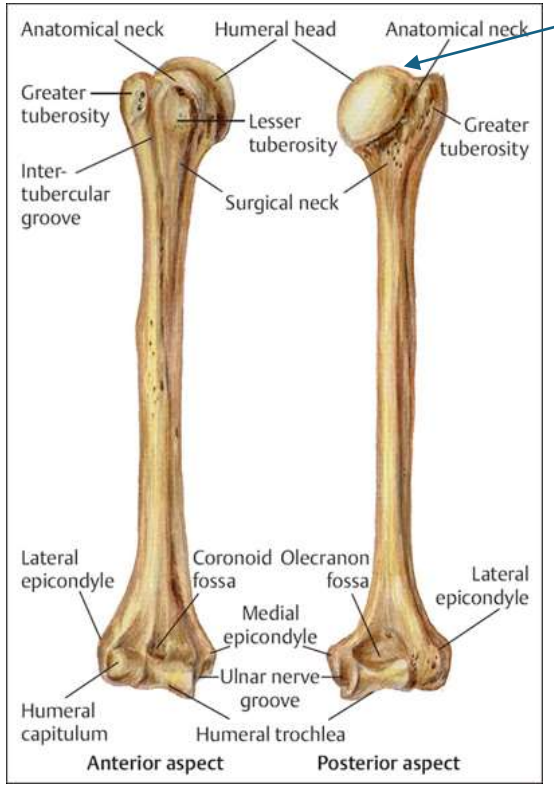




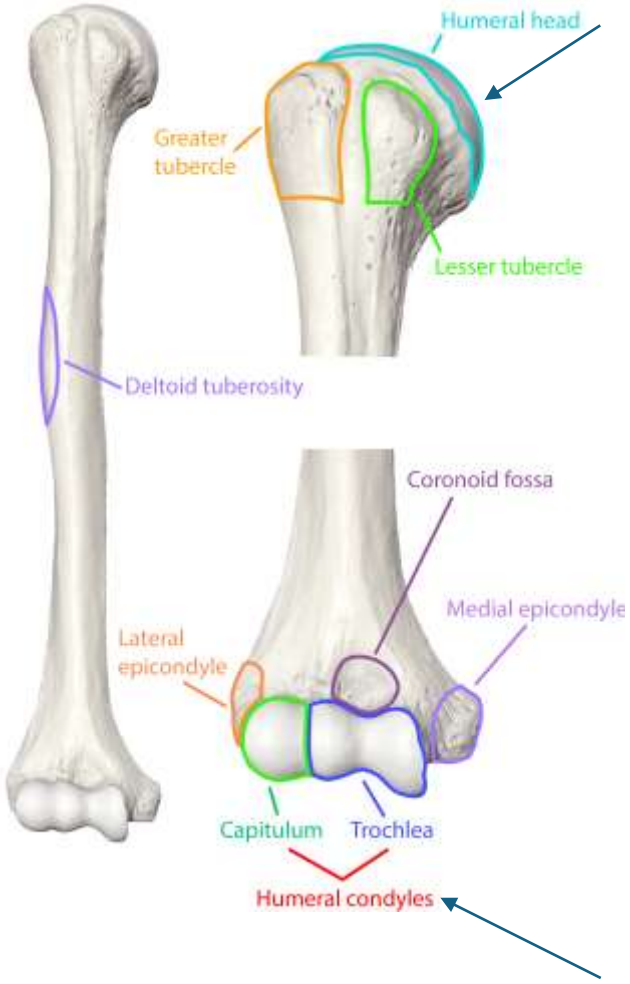
Elevations regular

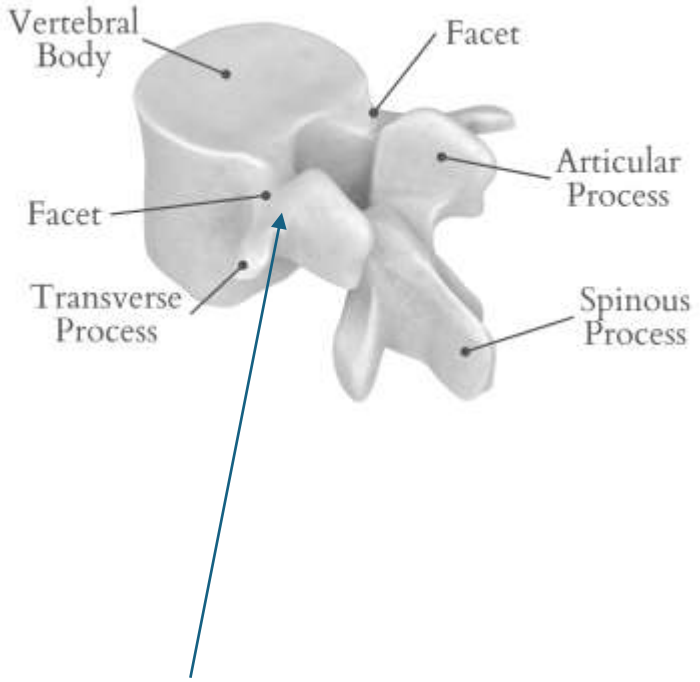
smooth articular surfaces

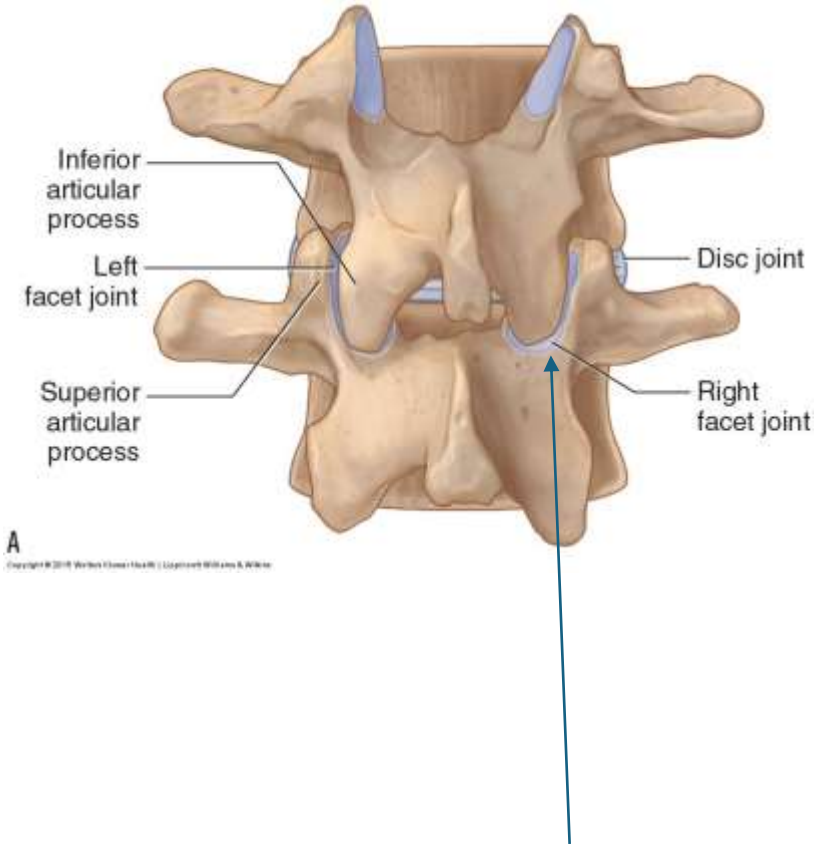
1. Head
2. Condyle
3. Trochlea
4. Capitulum
5. facet



Elevations example

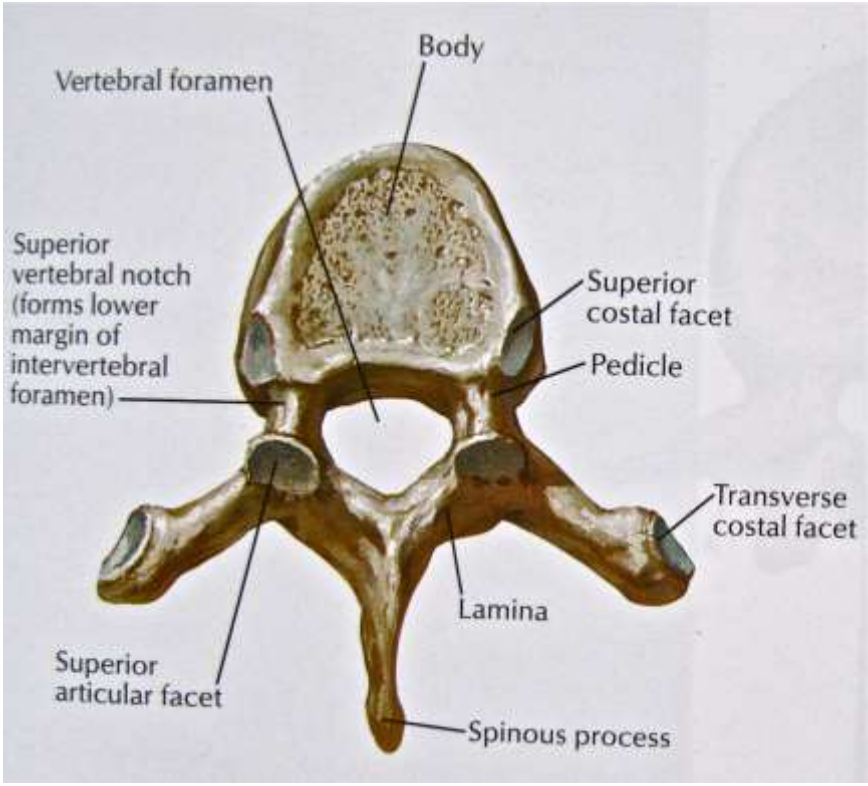




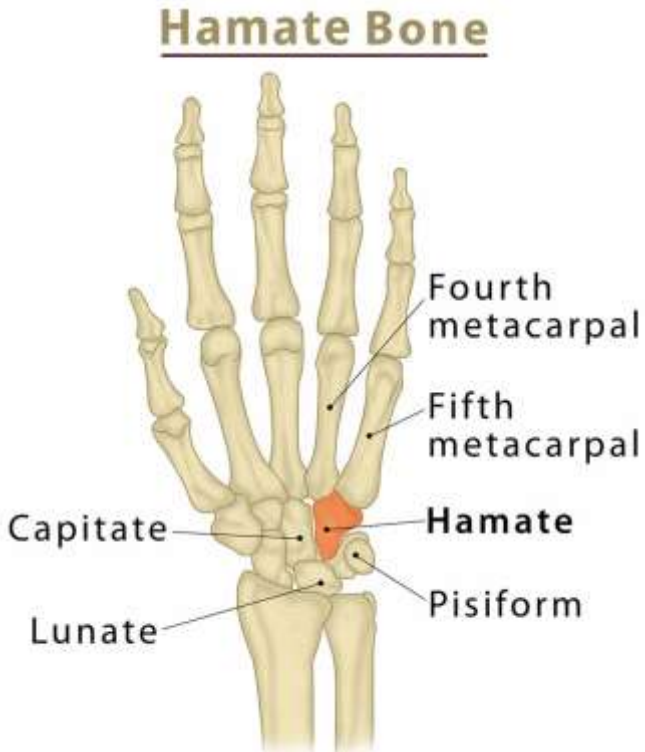


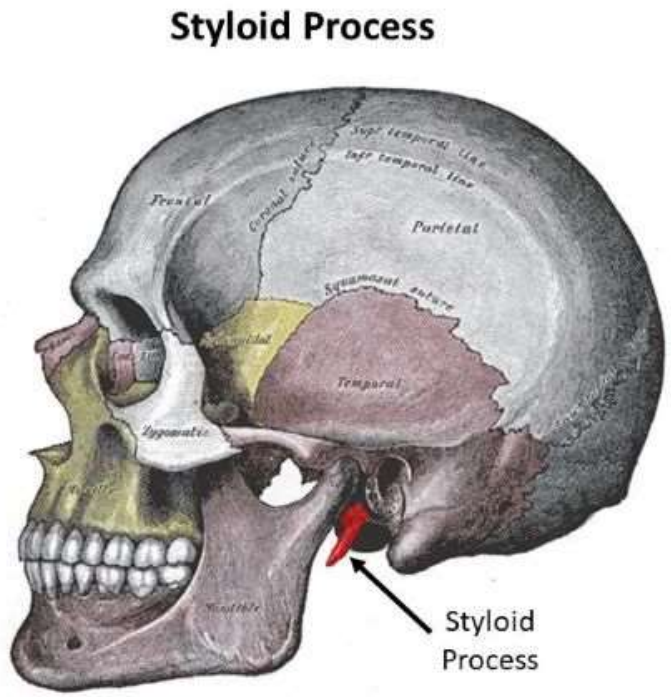
Elevations
 sharp or pointed

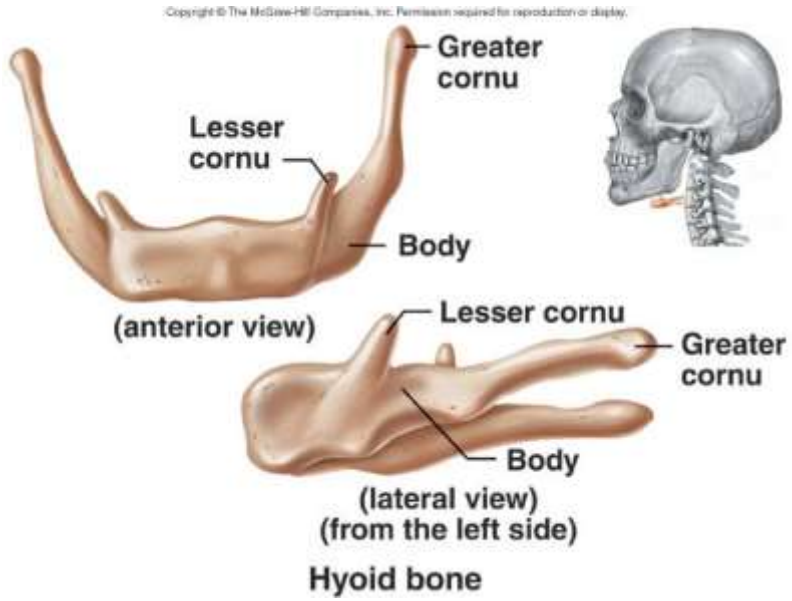
1. spine
2. Process
3. Cornu(horn)
4. Curved(hook)



Elevations examples





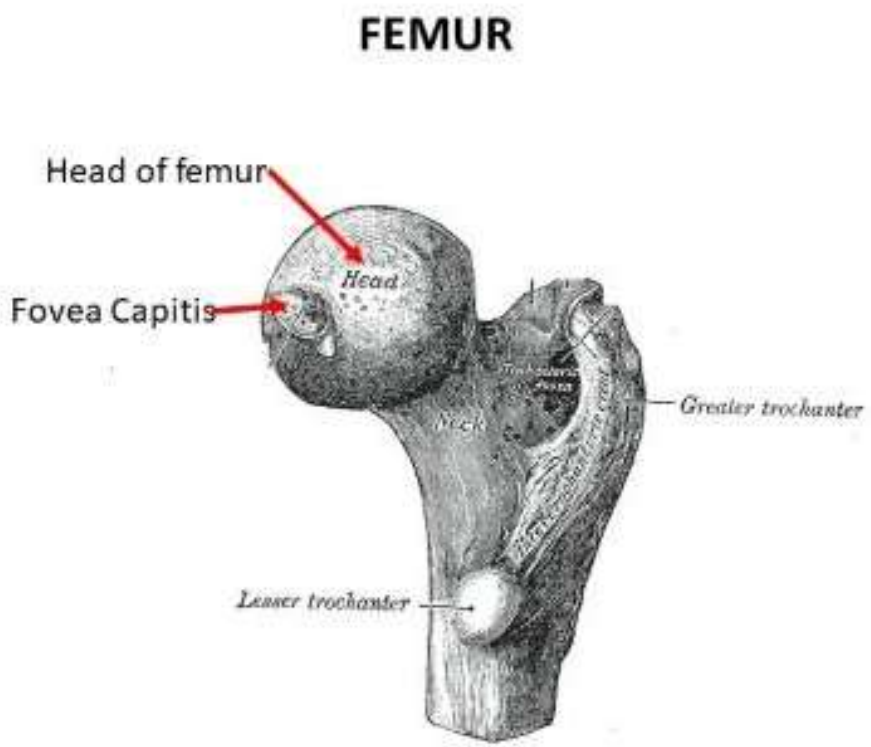


Depressions

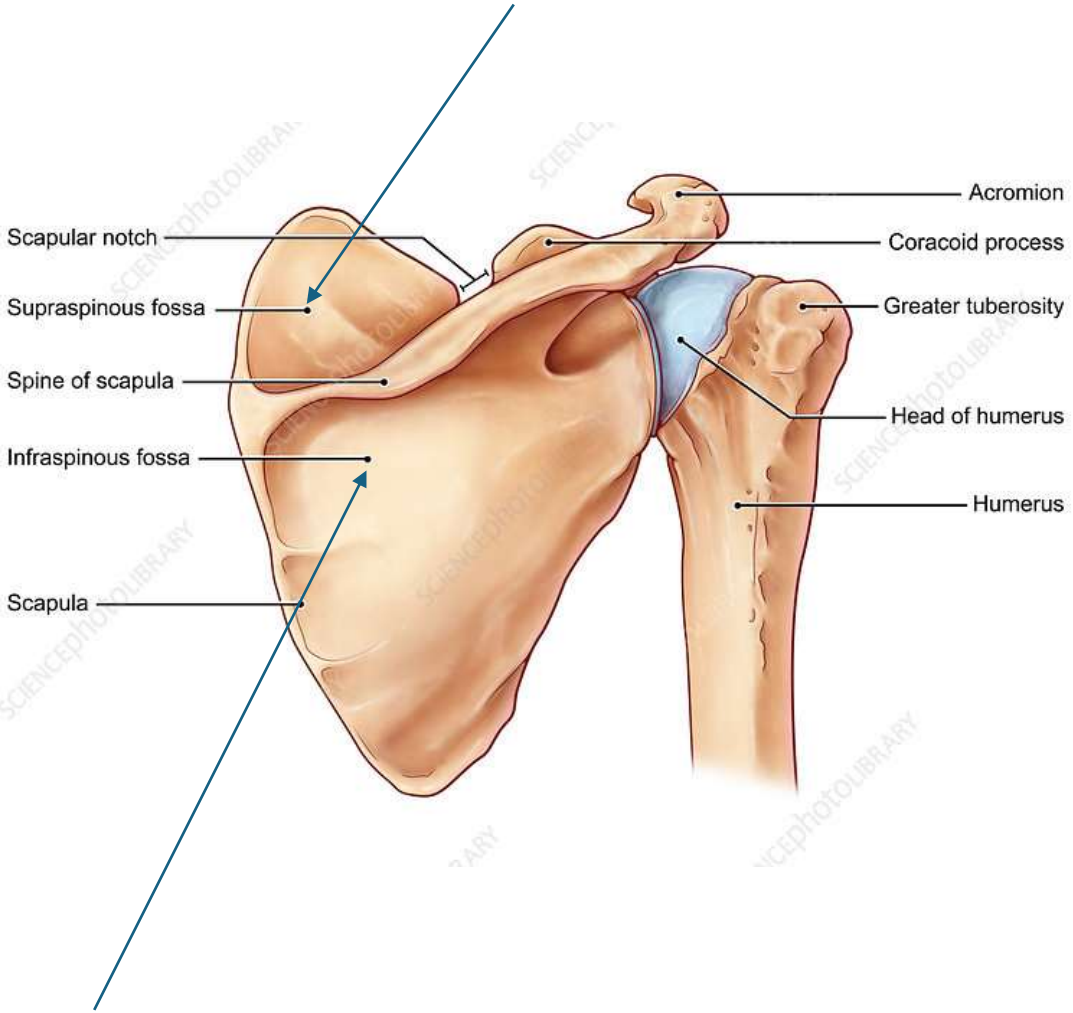
1. Oval or rounded : pit ,fovea ,impression or fossa .
2. Elongated: groove,sulcus and furrow.
3. On edge:notch(wide),incisura(narrow)

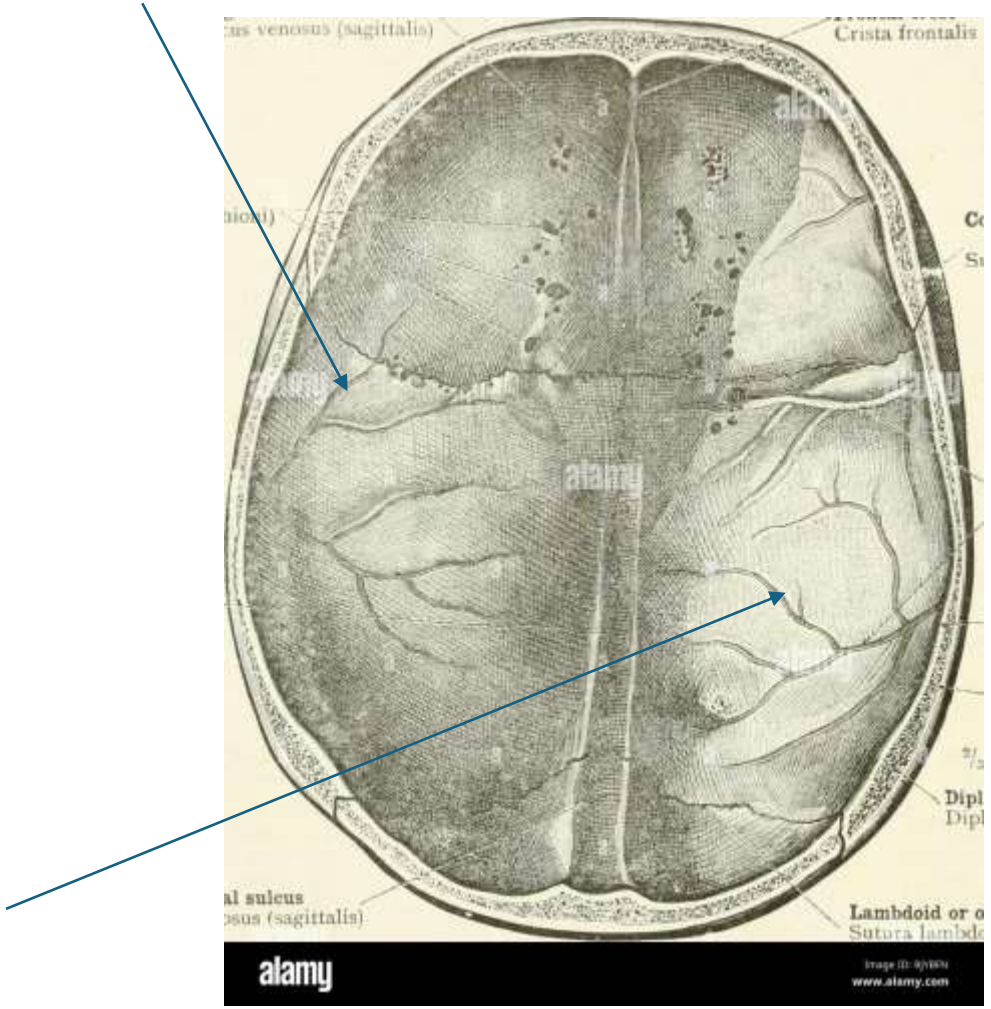
Depressions oval or rounded

1. Pit
2. Fovea
3. Impressions
4. Fossa



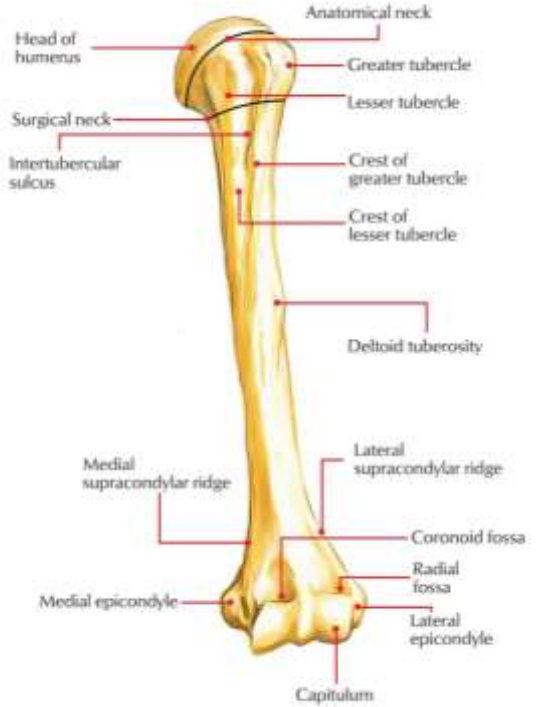
Depressions examples

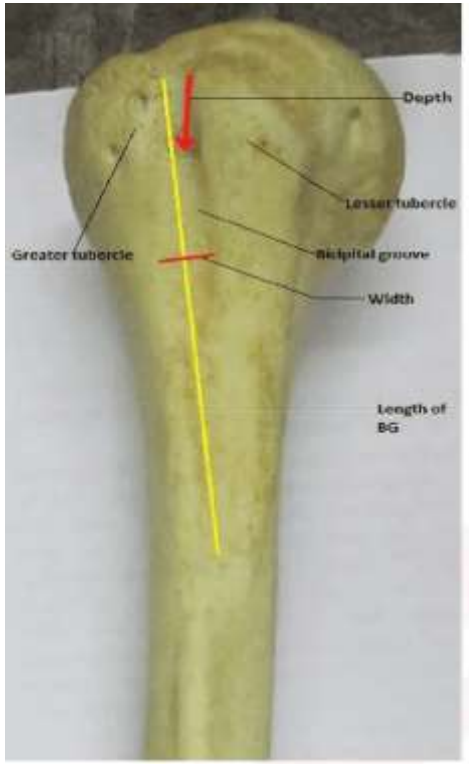




Depressions elongated

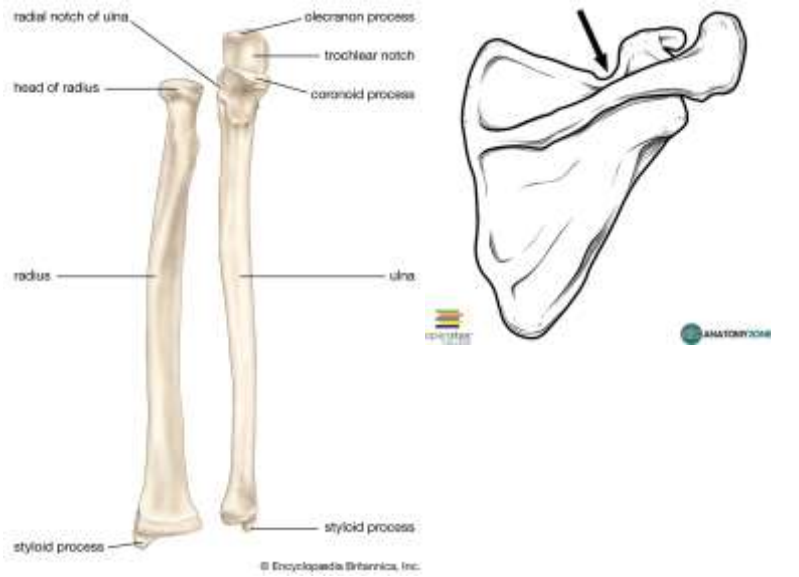
1. Groove
2. Sulcus
3. Furrow

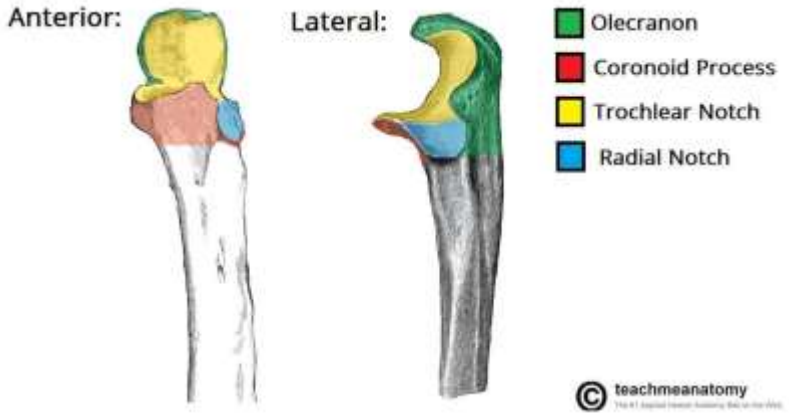




Depressions on edge

1. Notch (wide)
2. Incisura (narrow)

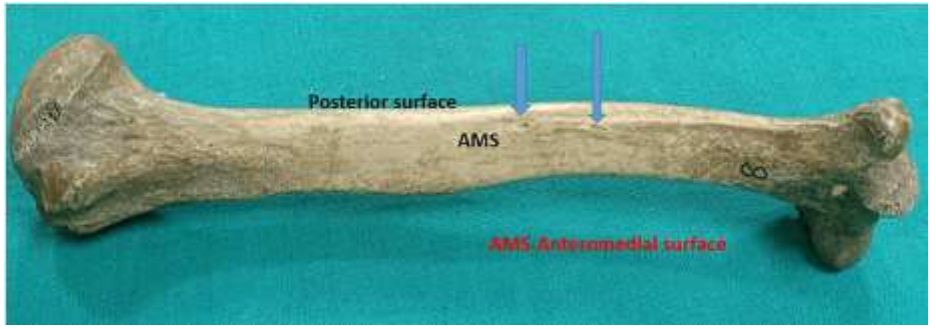




Openings

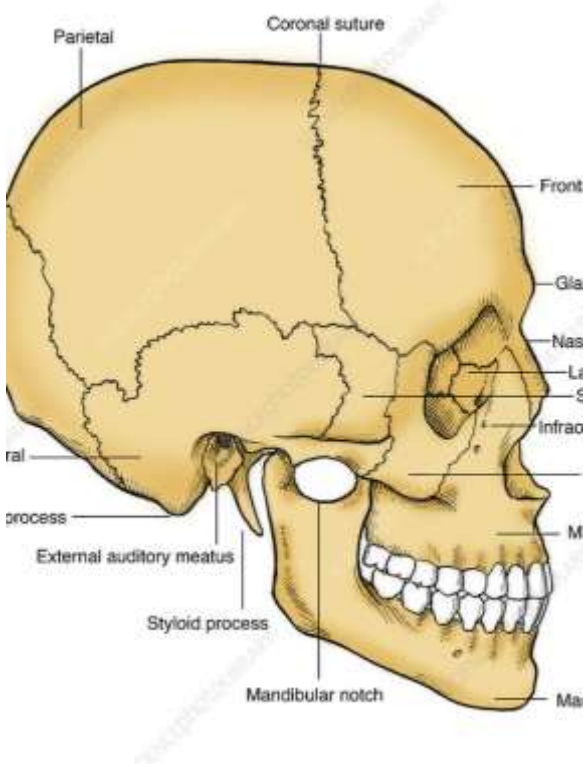
1. Foramen : rounded smooth opening on the bone surface
2. Canal(meatus): a clear passage in the bone
3. Hiatus : a slit or gape
4. Fissure : a linear separation between two or more bones

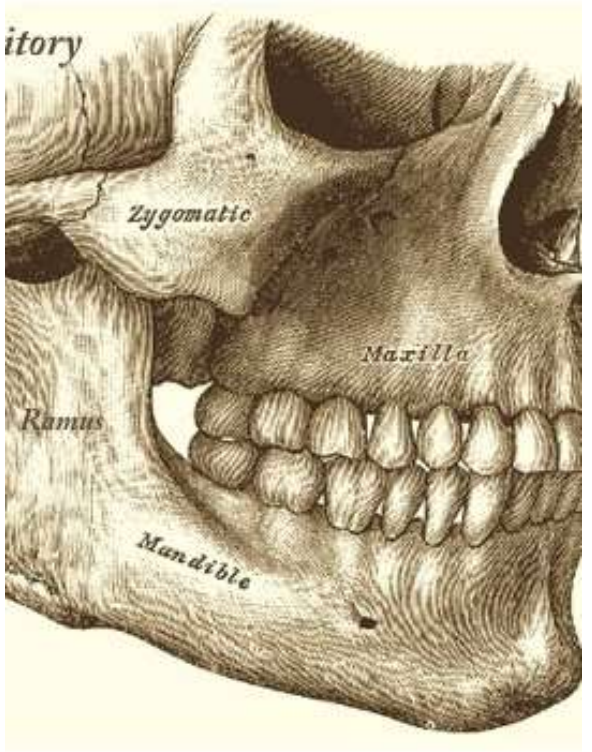
Openings examples



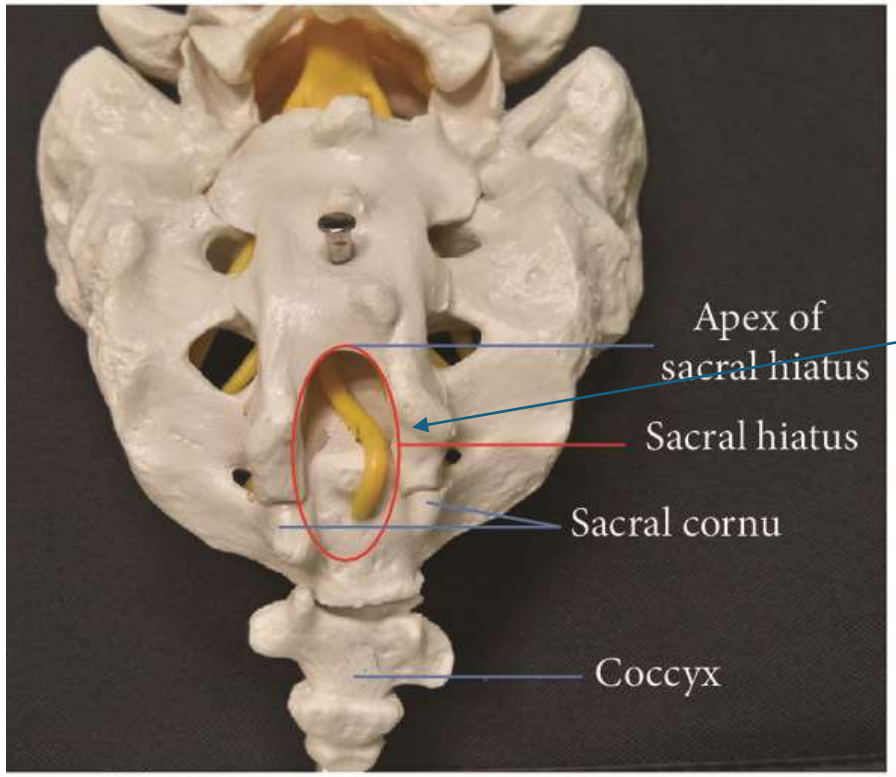
- Nutrient foramen
- Foramen magnum (skull base)

Openings examples canal(meatus)



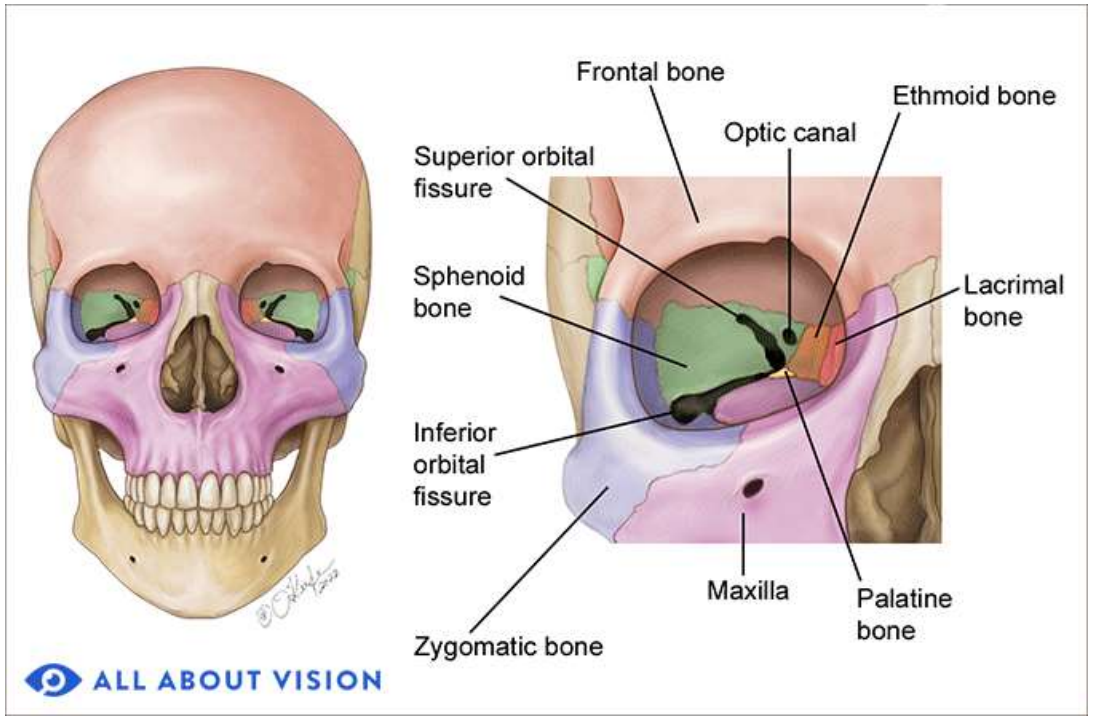


Openings examples
hiatus



Openings examples fissure

- Superior orbital fissure
- Inferior orbital fissure



Cavities

- Air spaces inside the bone , like ; sinuses ,air cells and antrum.

Examples

1. On the left:paranasal sinuses
2. On the right :mastoid air cells.