

Lec. 2 Human Skeleton

- The human skeleton is the internal framework of the human body . It is composed of 270 bones at birth and decreased to 206 bones by adulthood (some bones are fused) .
- The bones mass in the skeleton about 14 % of the total body weight .

Human skeleton is divided to :

1 - Axial skeleton : include , skull , vertebral column and ribs .

2 – Appendicular skeleton , which attached to the axial skeleton , it is formed by : shoulders , pelvis and bones of upper and lower limbs .

Functions of human skeleton :

1 – Support 2 – Movement 3 – Protection

4 – Production of blood cells .

5 – Storage of minerals .

6 – Endocrine regulation .

Bones of Upper limb :

1 – Scapula 2 - Humerus 3 – Radius 4 – Ulna

5 – Carpus bones (8 bones)Wrist

6 - Metacarpus(5 bones hand palm) 7 – Phalanx bones (14)

Bones of Lower limb :

1 – Femur 2 – Patella 3 – Tibia 4 – Fibula

5 – Seven tarsal bones

6 – Five Metatarsal bones 7 - Phallanges (14)

Bones of Skull :

1 – Frontal bone 2 – Occipital bone 3 – Two Parietal bones

4 – Two Temporal bone 5– Cranial base bones .

6 – Two Sphenoid . 7– Two Ethmoid

Bones of vertebral column :

There are 33 vertebrates separated by intervertebral disc

1 – Cervical vertebrates (7, C1 – C7)

2 – Thoracic vertebrates (12 , T1 – T12)

3 – Lumbar vertebrates (5 , L1 – L5)

4 – Sacrum 5 fused (S1 – S5)

5 – Coccyx 4 vertebrates fused (tail bones) .

Ribs and sternum :

Ribs (Thoracic cage) , 12 pairs of ribs :

1 – True ribs 1- 7 connect to the vertebrates and to the sternum by their costal cartilage .

2 – False ribs 8 , 9 , 10 these ribs connect to the sternum by the costal cartilage of the above rib (rib 7) . 2

3 – The last two ribs called floating ribs (do not have costal cartilage) .

• Sternum have three parts :

1 – Manubrium 2 – body 3 – Xiphoid cartilage or process

Pelvis Bones (Hip Joint) :

1 – Ilium 2 – Ischium 3 – Pubis

Pubic Symphysis

Teeth :

Total number of adult teeth 32 :

1 - Eight Incisors (Four in upper Jaw and four in lower Jaw).

2 – Four Canines (Two in upper Jaw and two in lower Jaw).

3 – Eight Premolar (Four in upper Jaw and four lower Jaw).

4 – Twelve Molars (Six molars in the upper Jaw and Six lower Jaw).

5 – Wisdom teeth (four , 2 in each Jaw).

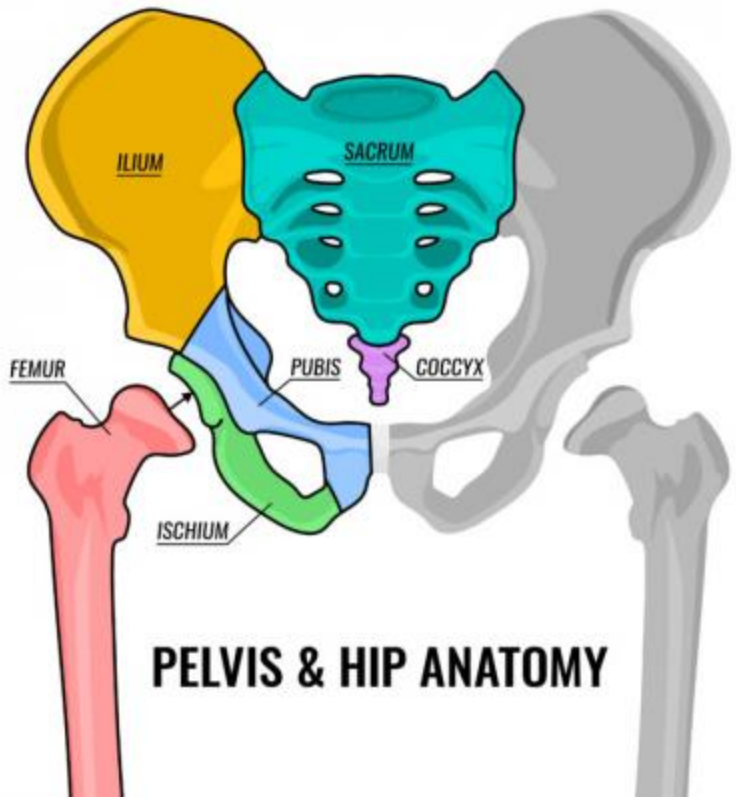
Milk Teeth or Baby teeth (20).

Babies have all teeth by age 3 .

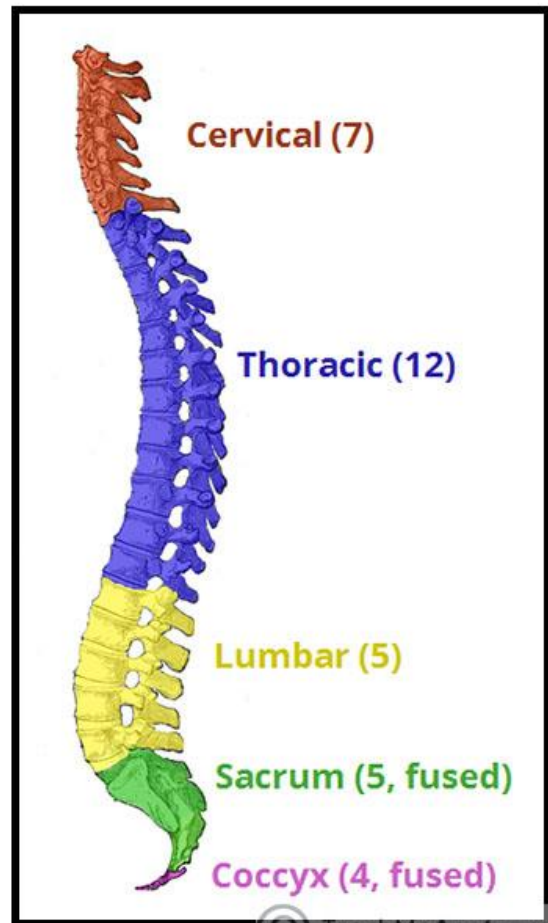
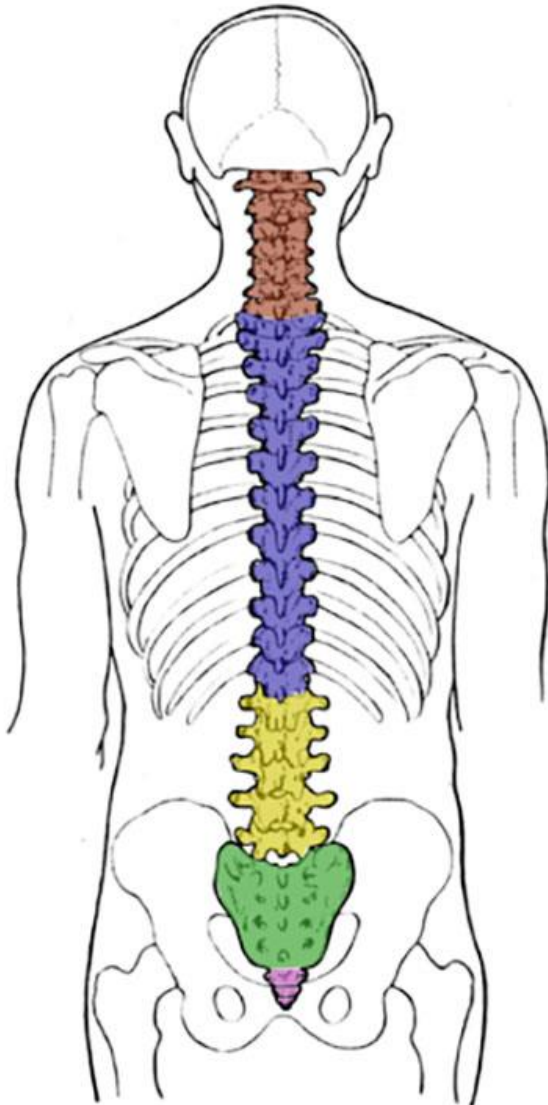
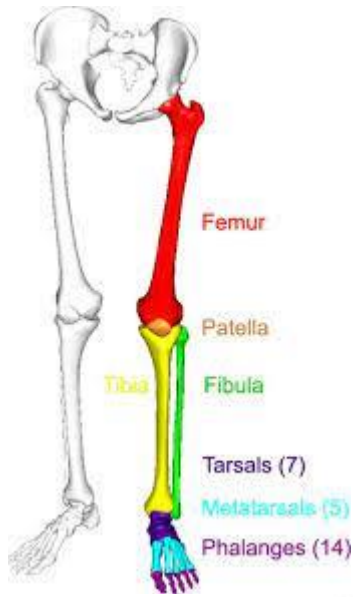
1 – Eight incisors (four in upper jaw and four in lower jaw).

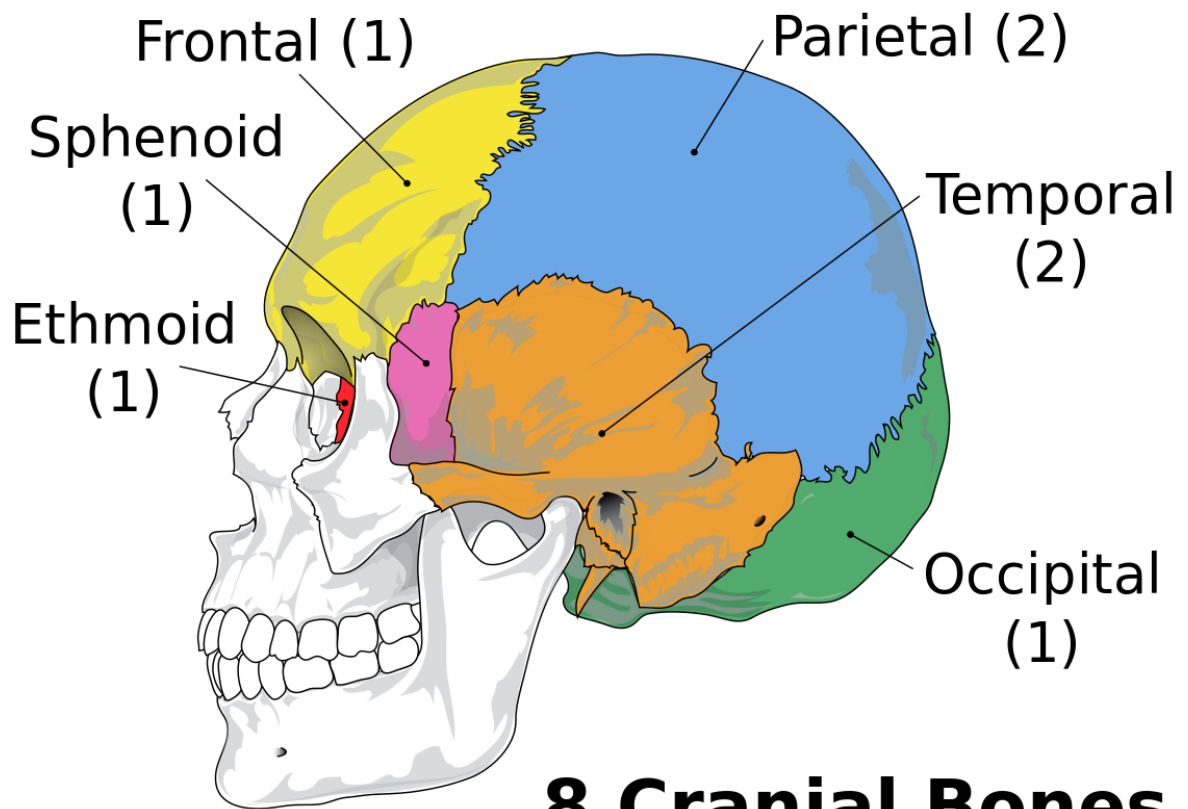
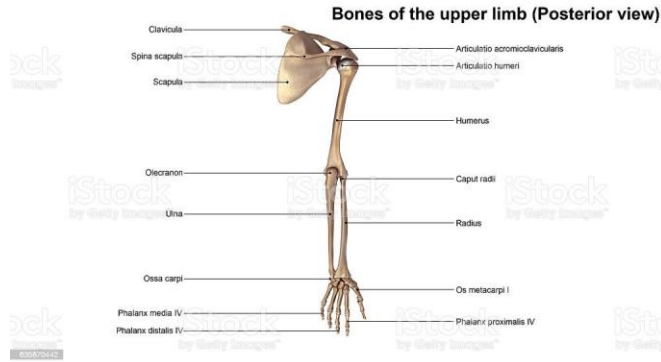
2 – Four canine (two in each jaw).

3 – Eight Molar (four in each jaw). **3**



PELVIS & HIP ANATOMY





8 Cranial Bones