

Bio& 241: Unit 2 Lecture 1



Functions of the Skeletal System

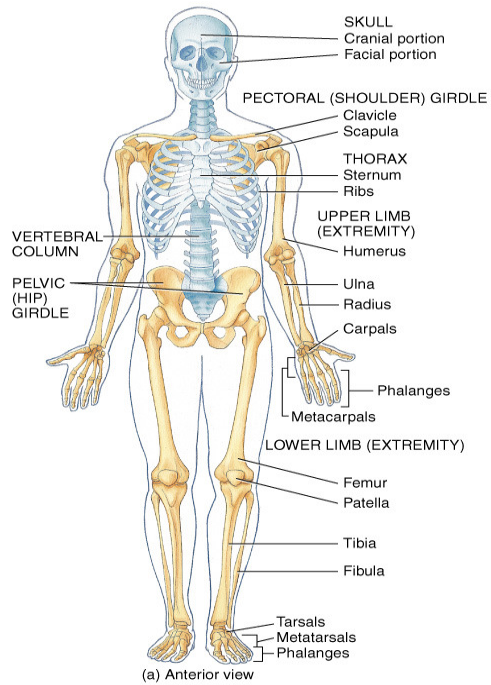
- 1. Support**
- 2. Protection**
- 3. Assistance in Movement**
- 4. Mineral Homeostasis**
- 5. Blood Cell Production**
- 6. Triglyceride Storage**



Axial Skeleton (indicated by blue)

<u>Skull</u>	# of Bones
Cranium:	8
Face:	14
Auditory Ossicles:	6
Hyoid	1
<u>Vertebral Column</u>	26
Cervical	7
Thoracic	12
Lumbar	5
Sacrum	1
Coccyx	1
Sternum	1
Ribs	24

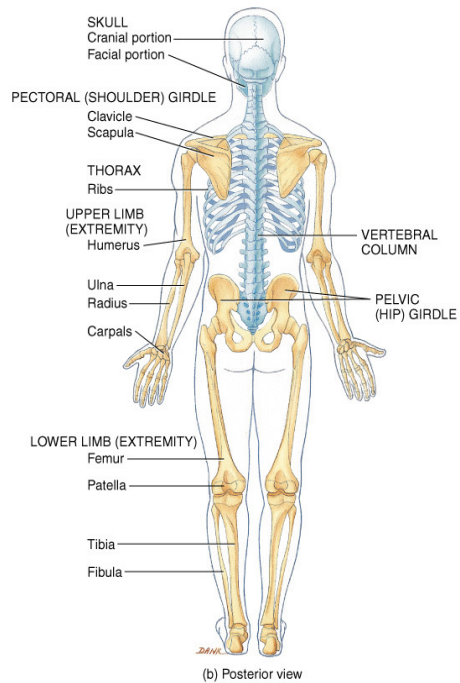
Axial Skeleton Total 80



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Appendicular Skeleton (in bone color)

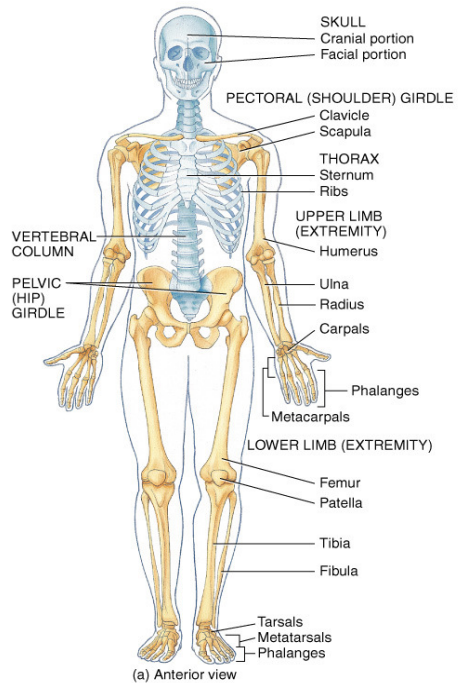
<u>Pectoral Girdle</u>	# Of Bones
Clavicle	2
Scapula	2
<u>Upper Extremities</u>	
Humerus	2
Ulna	2
Radius	2
Carpals	16
Metacarpals	10
Phalanges	28



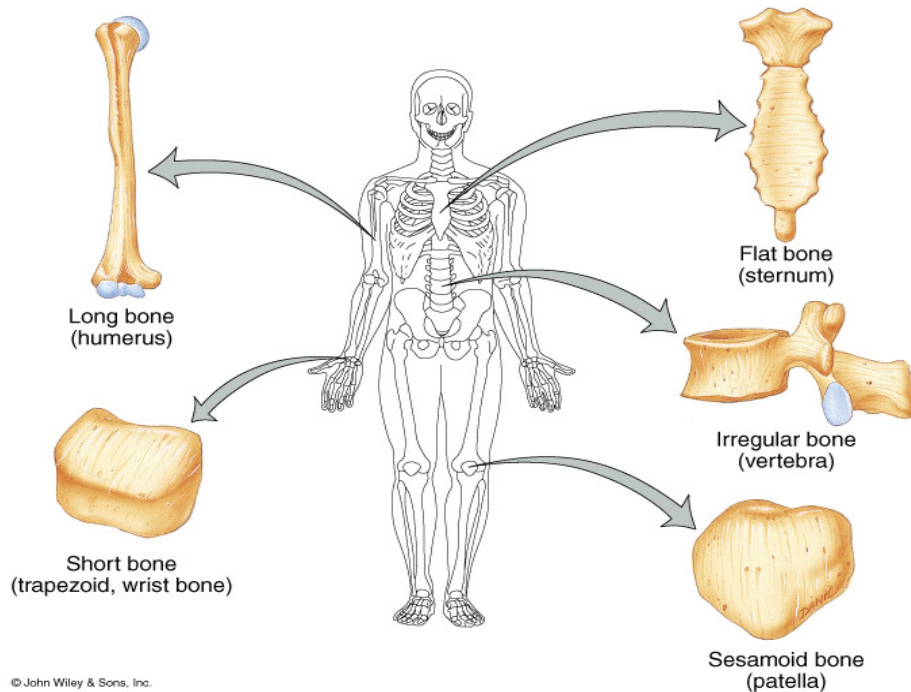
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Appendicular Skeleton (in bone color)

Pelvic Girdle	# Of Bones
Os Coxae	2
Lower Extremities	
Femur	2
Fibula	2
Tibia	2
Patella	2
Tarsals	14
Metatarsals	10
Phalanges	28
Appendicular Total	126
Skeleton Total	206



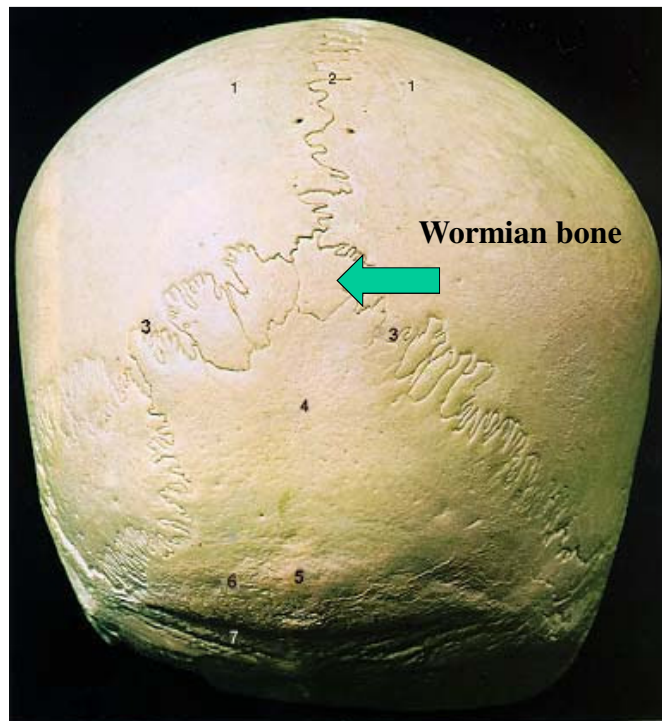
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Another common example of a Sesamoid Bone



Anatomical Terms for Bone Features

Major Features

Head

Neck

Body



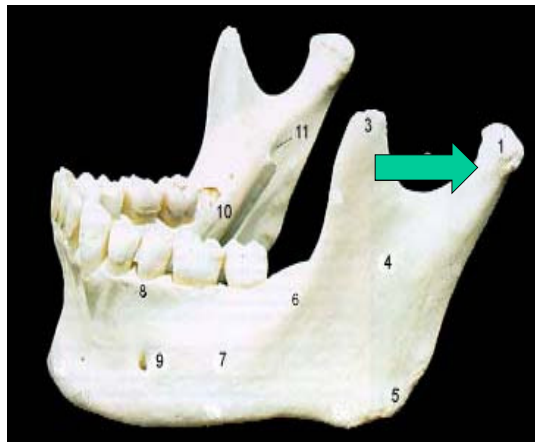
Anatomical Terms for Bone Features

Major Features

Head

Neck

Body



Anatomical Terms for Bone Features

Major Features

Head

Neck

Body



Anatomical Terms for Bone Features

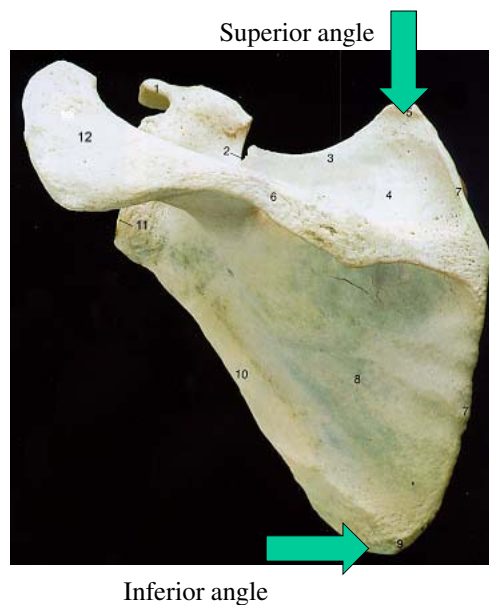
Major features

Angle

Ramus

Margin or

Border



Anatomical Terms for Bone Features

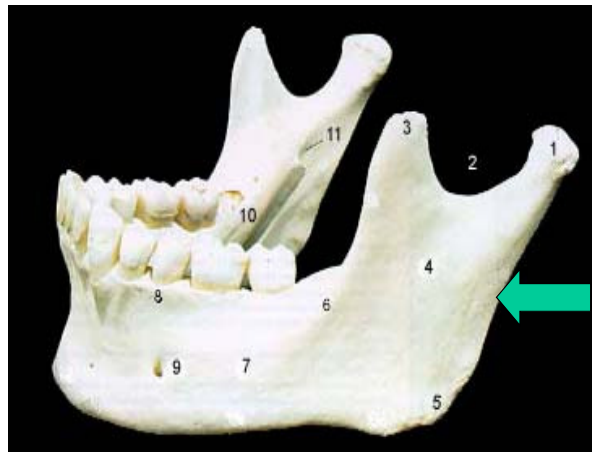
Major features

Angle

Ramus

Margin or

Border



Anatomical Terms for Bone Features

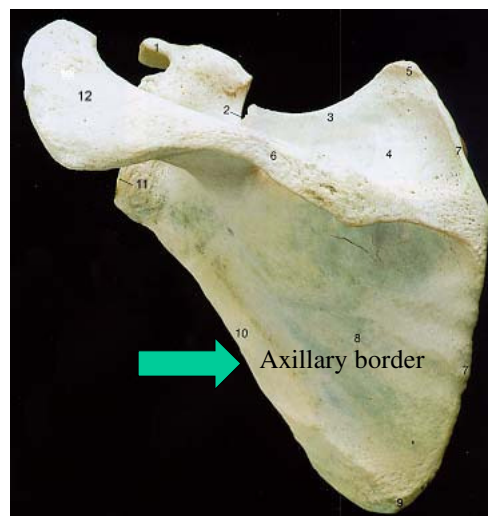
Major features

Angle

Ramus

Margin or

Border

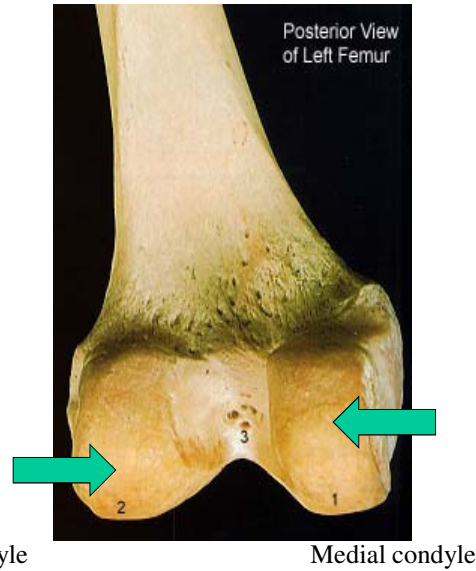


Anatomical Terms for Bone Features

Major features

Condyle

Epicondyle



Anatomical Terms for Bone Features

Major features

Condyle

Epicondyle



Anatomical Terms for Bone Features

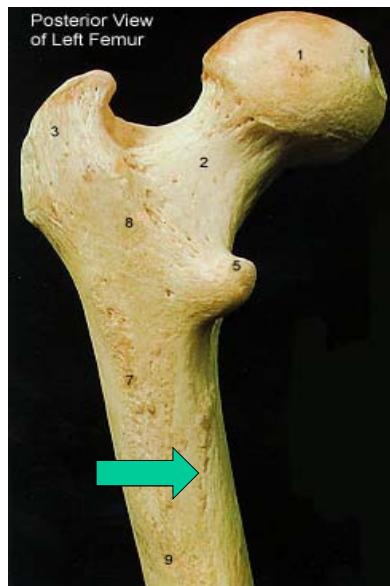
Ridges

Line or Linea

Crest or Crista

Spine

Linea Aspera



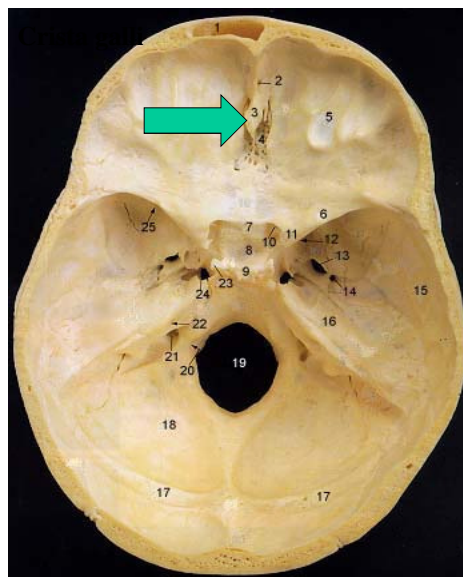
Anatomical Terms for Bone Features

Ridges

Line or Linea

Crest or Crista

Spine



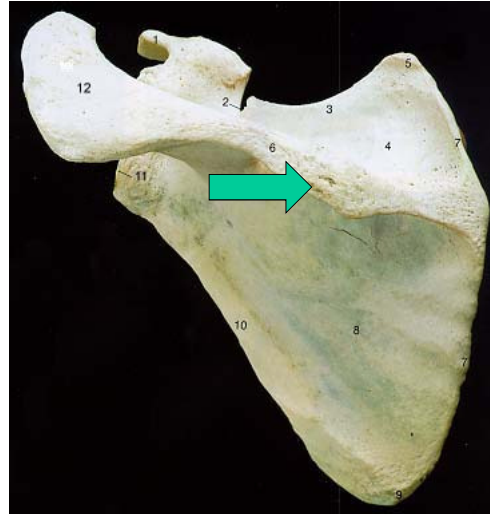
Anatomical Terms for Bone Features

Ridges

Line or Linea

Crest or Crista

Spine



Anatomical Terms for Bone Features

Processes

Tubercle

Tuberosity

Trochanter

Hamulus



Lesser tubercle

Anatomical Terms for Bone Features

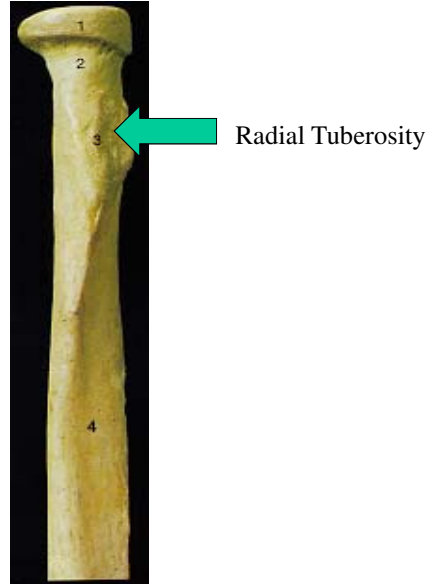
Processes

Tubercle

Tuberosity

Trochanter

Hamulus



Anatomical Terms for Bone Features

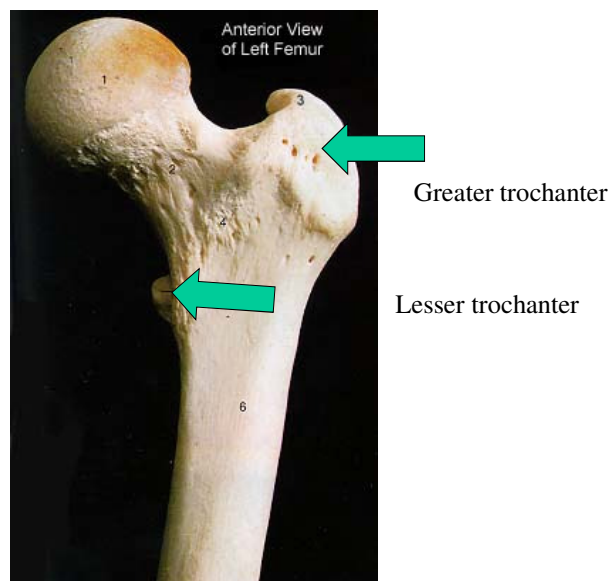
Processes

Tubercle

Tuberosity

Trochanter

Hamulus



Anatomical Terms for Bone Features

Processes

Tubercle
Tuberosity
Trochanter

Hamulus



Anatomical Terms for Bone Features

Openings

Foramen

Meatus
Fissure
Sinus

Obturator foramen



Anatomical Terms for Bone Features

Openings

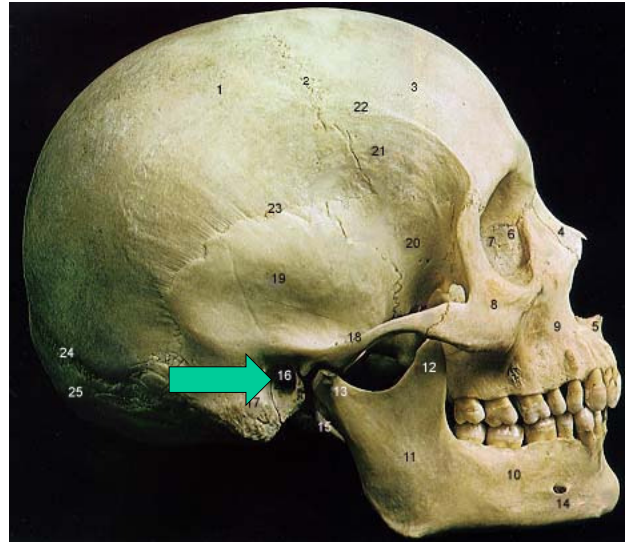
Foramen

Meatus

Fissure

Sinus

External Auditory Meatus



Anatomical Terms for Bone Features

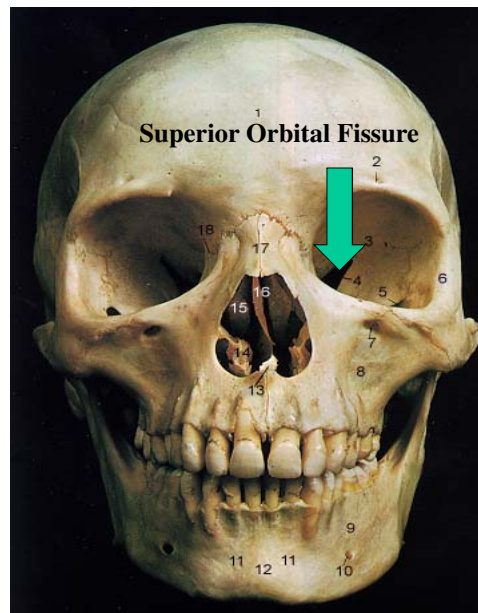
Openings

Foramen

Meatus

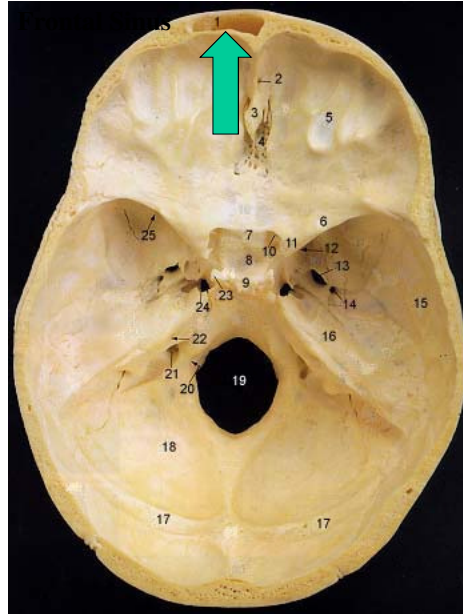
Fissure

Sinus



Anatomical Terms for Bone Features

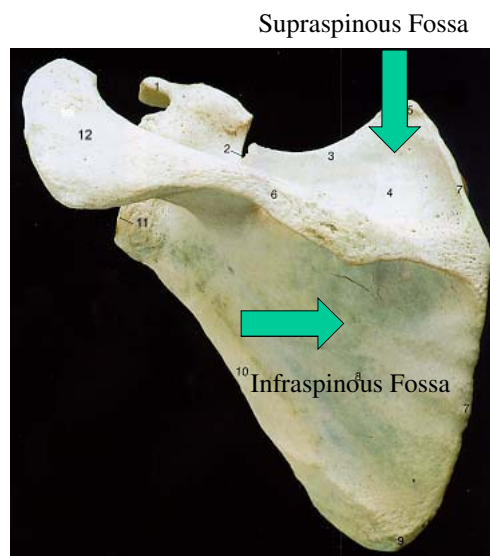
- Openings
- Foramen
- Meatus
- Fissure
- Sinus



Anatomical Terms for Bone Features

Depressions

- Fossa
- Impression
- Notch
- Sulcus



Anatomical Terms for Bone Features

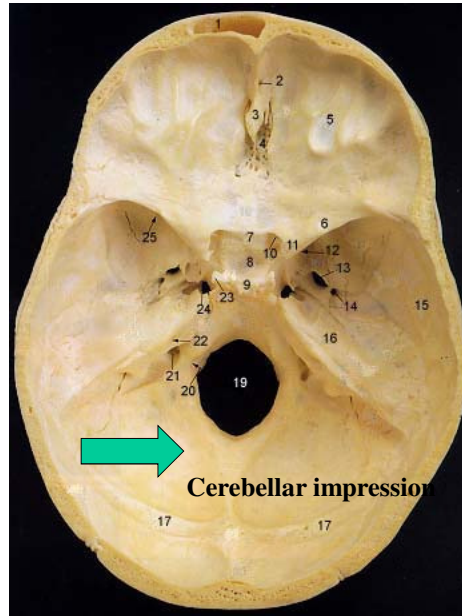
Depressions

Fossa

Impression

Notch

Sulcus



Anatomical Terms for Bone Features

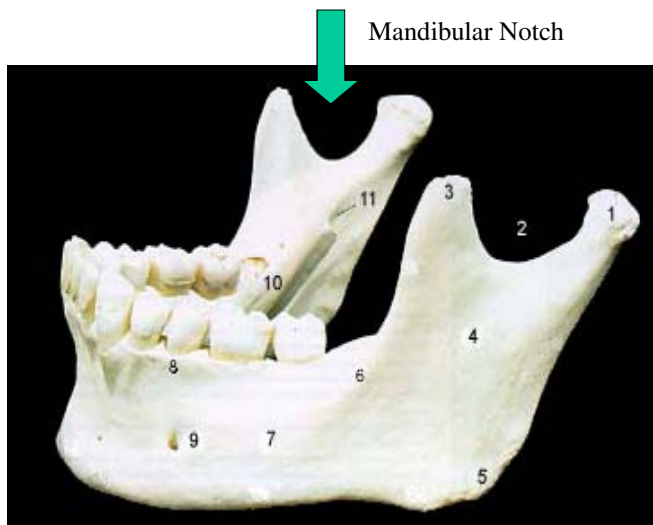
Depressions

Fossa

Impression

Notch

Sulcus



Anatomical Terms for Bone Features

Depressions

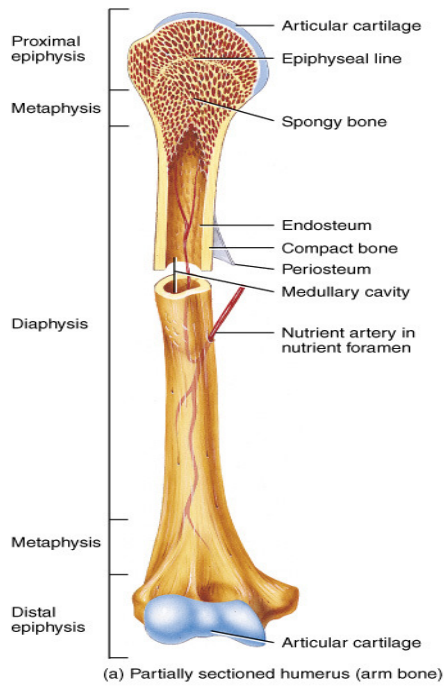
Fossa

Impression

Notch

Sulcus

Intertubercular Sulcus



(a) Partially sectioned humerus (arm bone)
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Carpals

2. Scaphoid
3. Lunate
4. Triquetrum
5. Pisiform
6. Trapezium
7. Trapezoid
8. Capitate
9. Hamate



Carpals

1. Scaphoid
2. Lunate
3. Triquetrum
4. Pisiform
5. Trapezium
6. Trapezoid
7. Capitate
8. Hamate



Can You Name the Carpals?



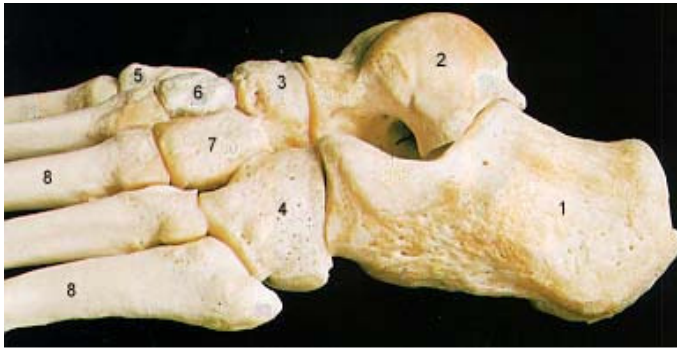
Tarsals

- 1. Calcaneus**
- 2. Talus**
- 3. Navicular**
- 4. Cuboid**
- 5. 1st Cuneiform**
- 6. 2nd Cuneiform**
- 7. 3rd Cuneiform**

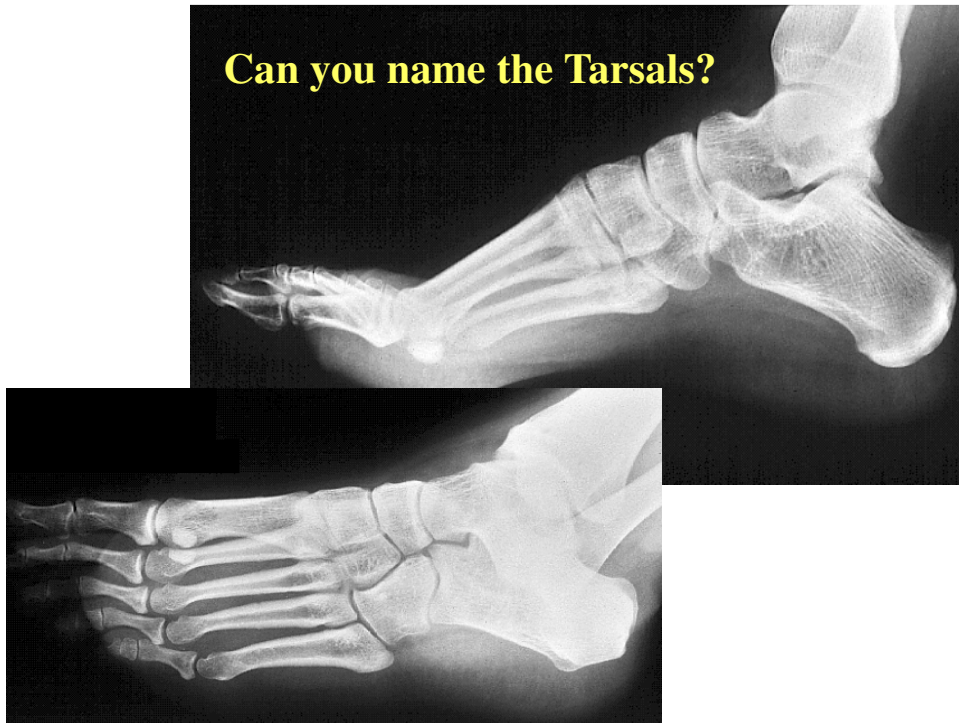


Tarsals

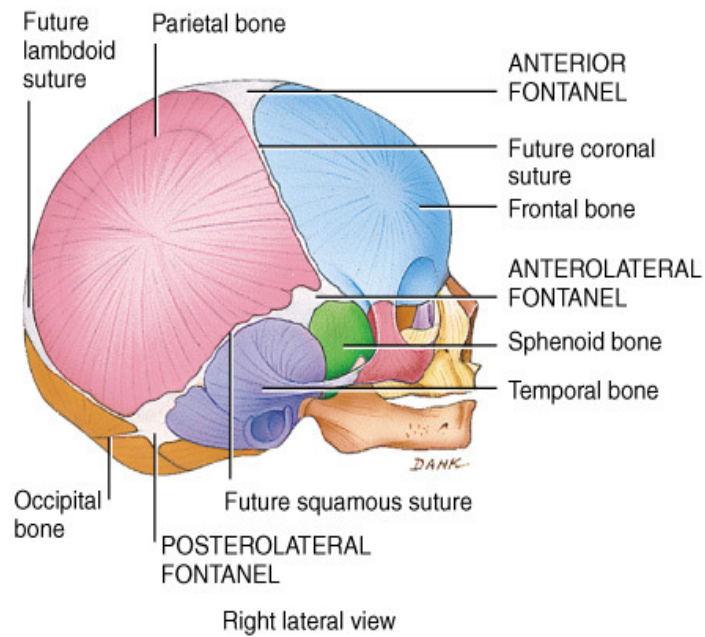
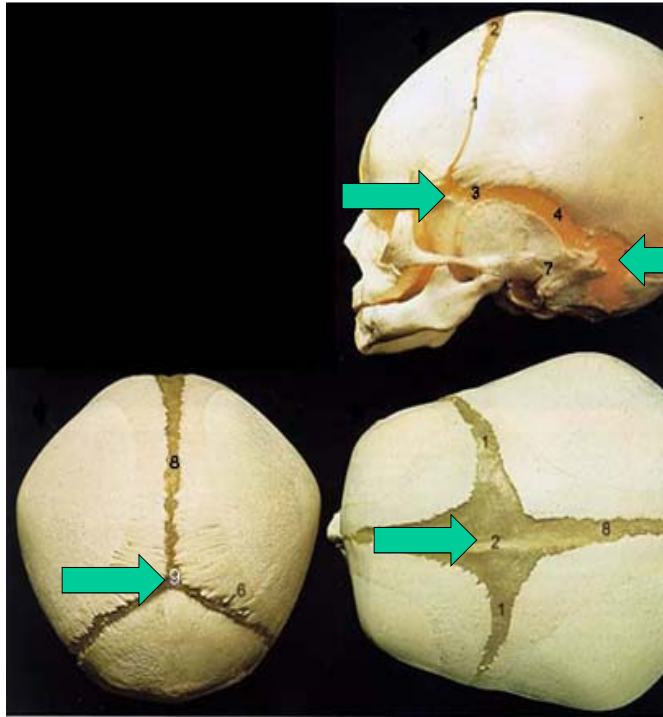
1. Calcaneus
2. Talus
3. Navicular
4. Cuboid
5. 1st Cuneiform
6. 2nd Cuneiform
7. 3rd Cuneiform



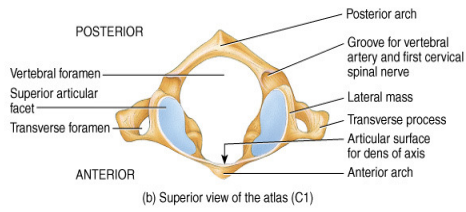
Can you name the Tarsals?



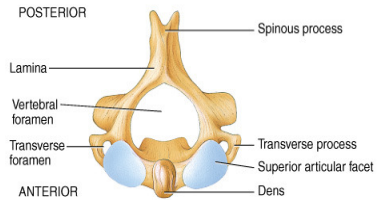
Fetal Skull
Fontanel



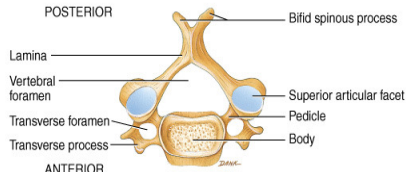
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(b) Superior view of the atlas (C1)

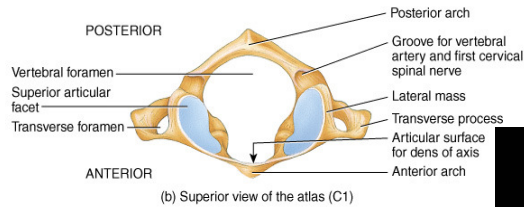
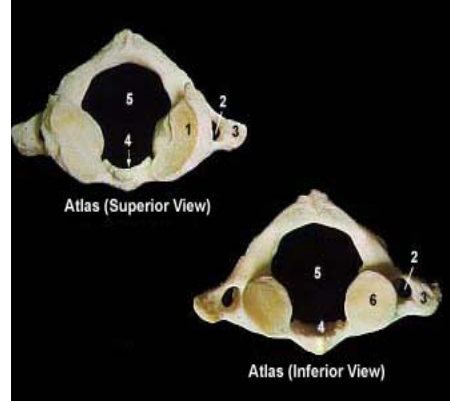


(c) Superior view of the axis (C2)

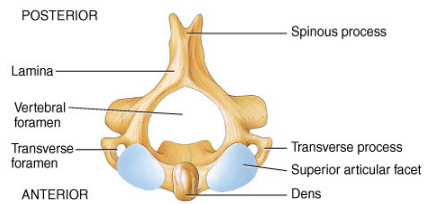


(d) Superior view of a typical cervical vertebra

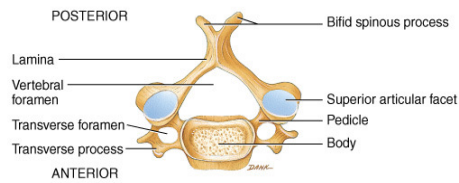
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(b) Superior view of the atlas (C1)

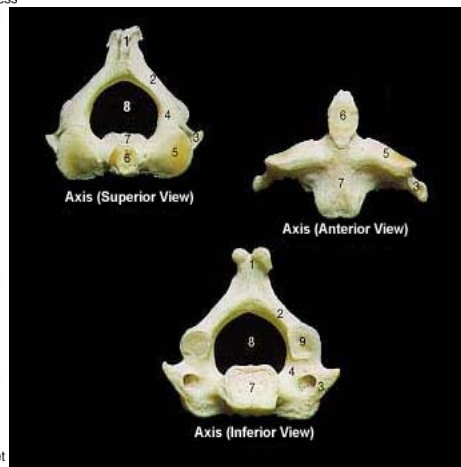


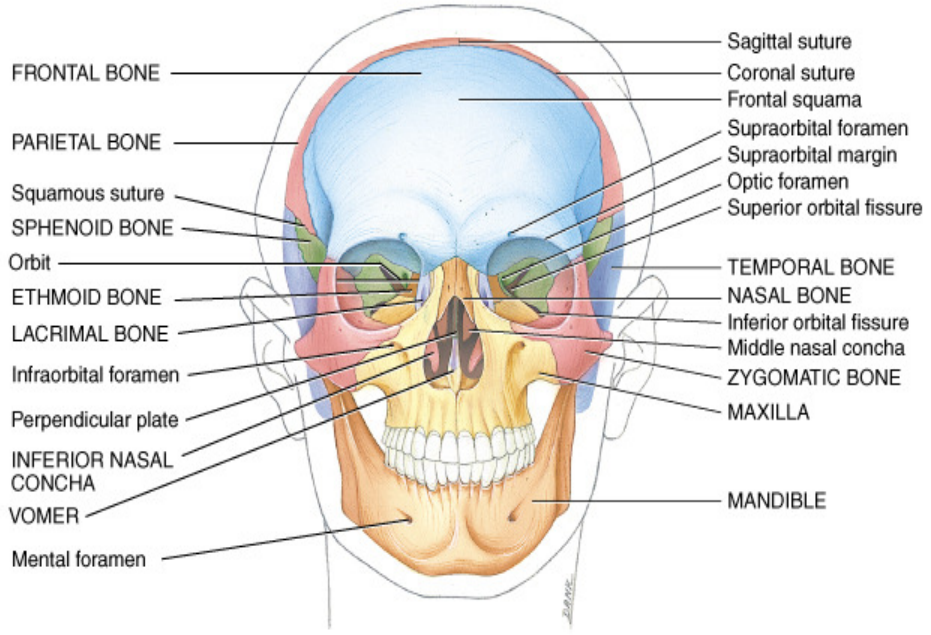
(c) Superior view of the axis (C2)



(d) Superior view of a typical cervical vertebra

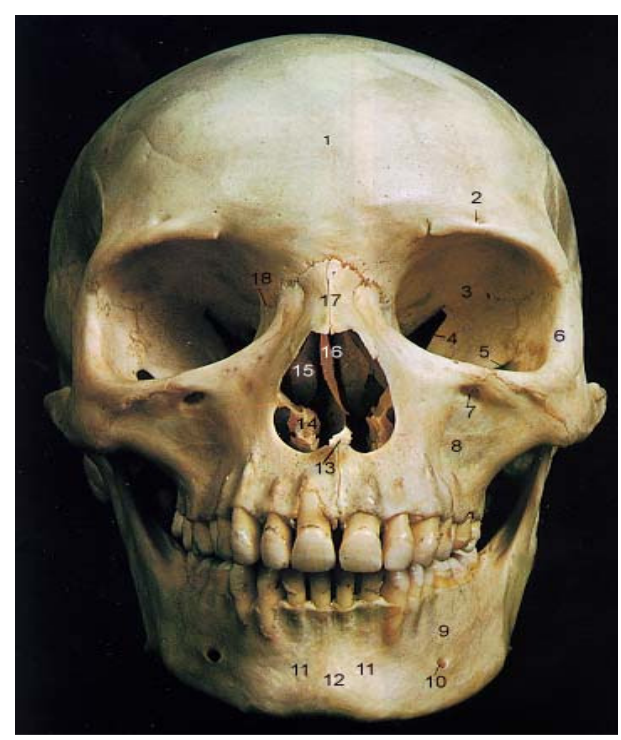
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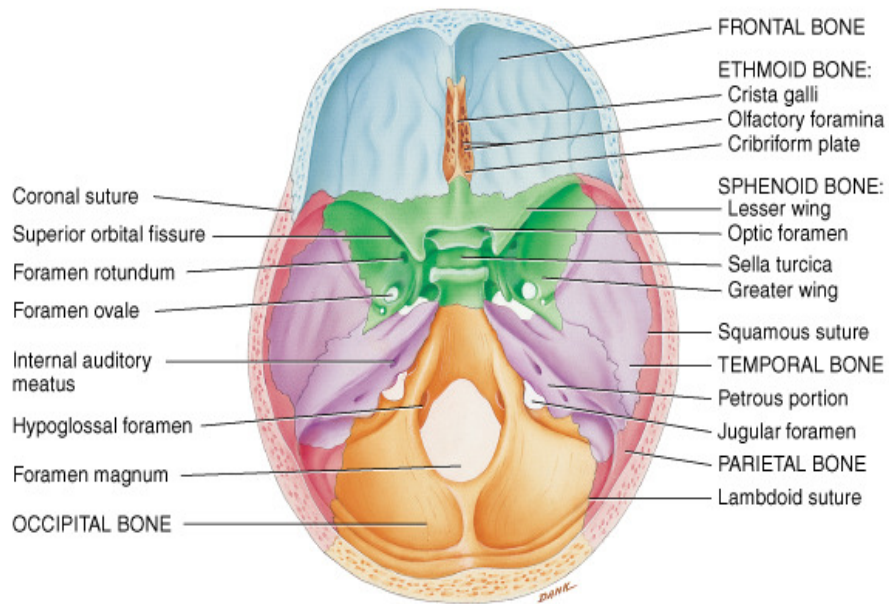




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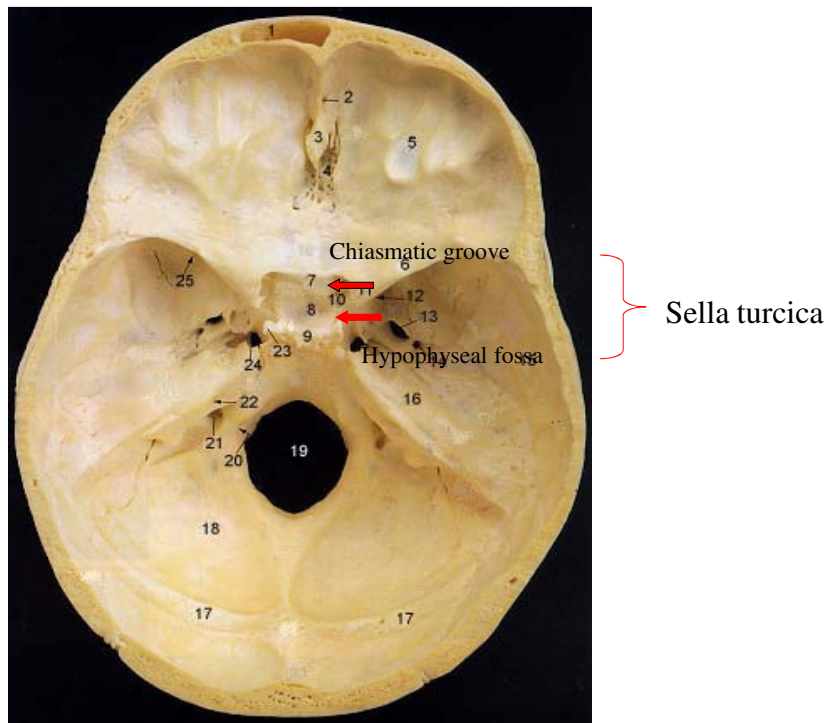
Anterior view

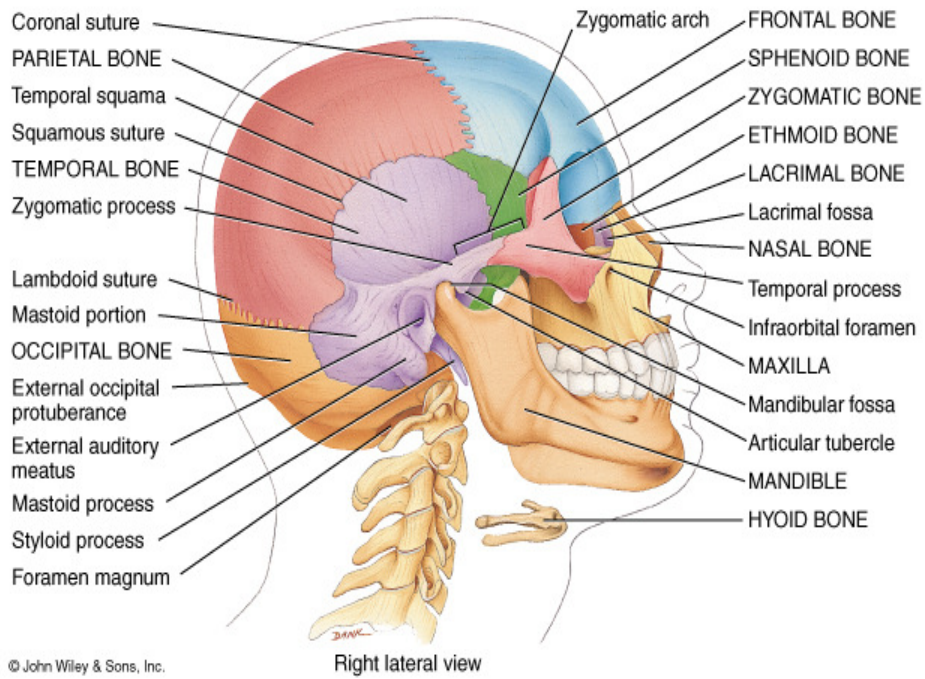


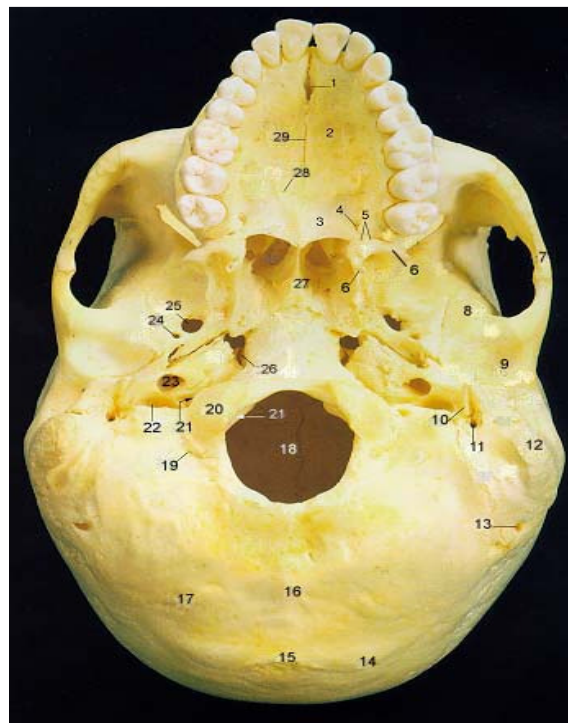
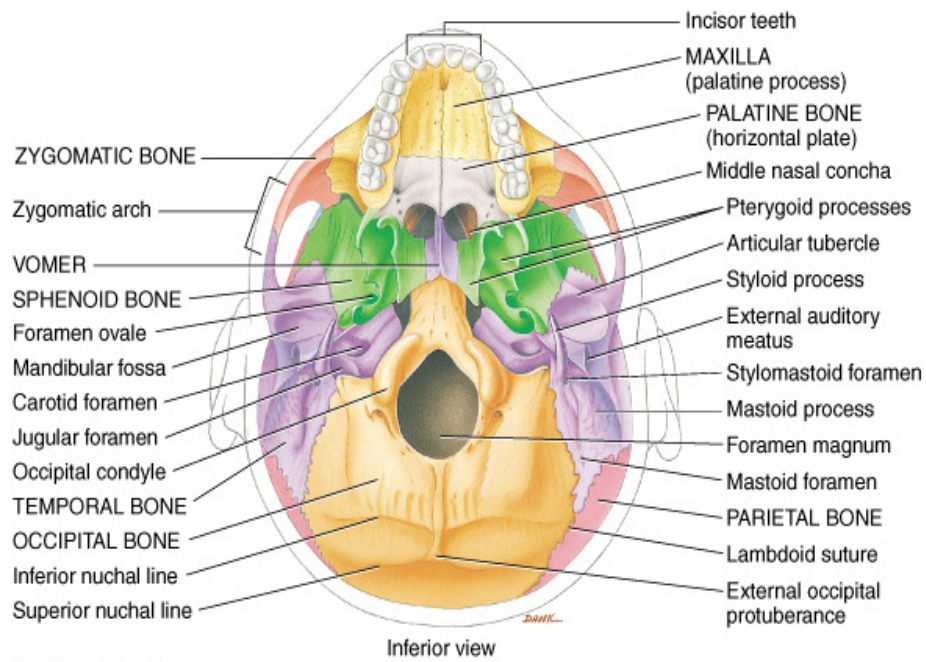


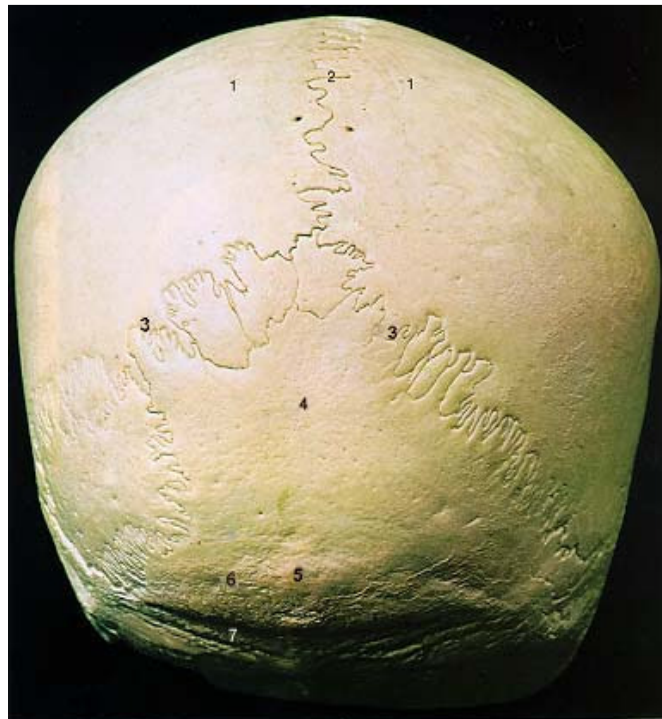
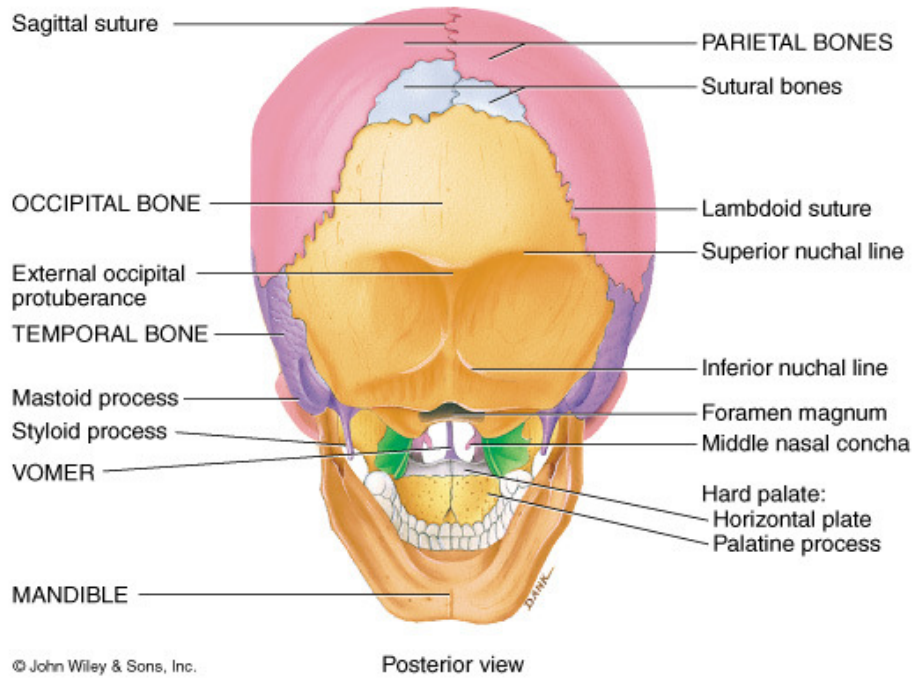
(a) Superior view of sphenoid bone in floor of cranium

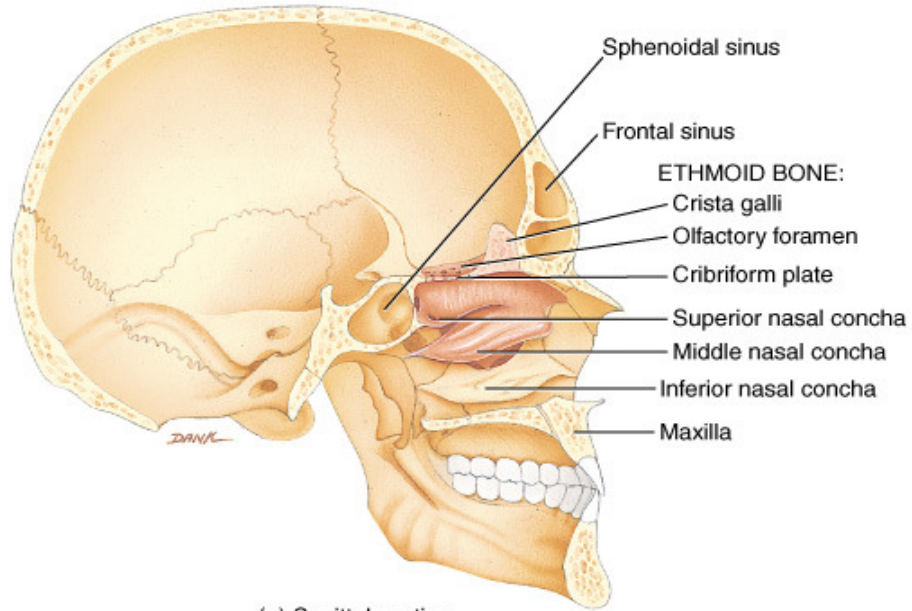
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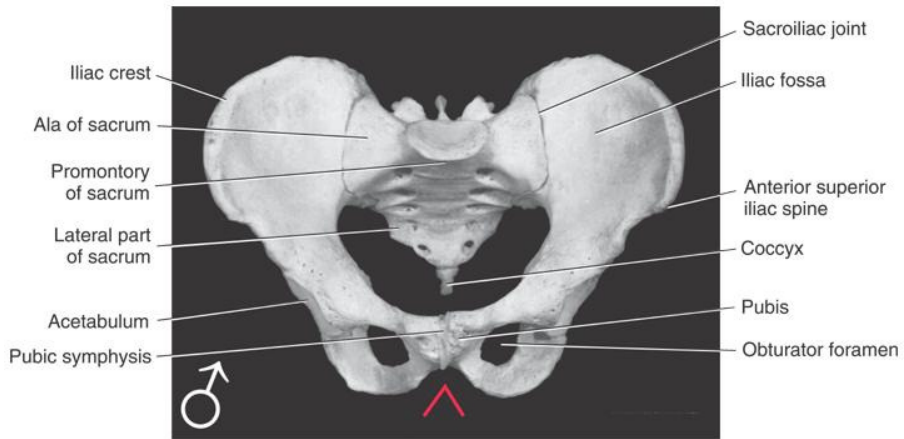




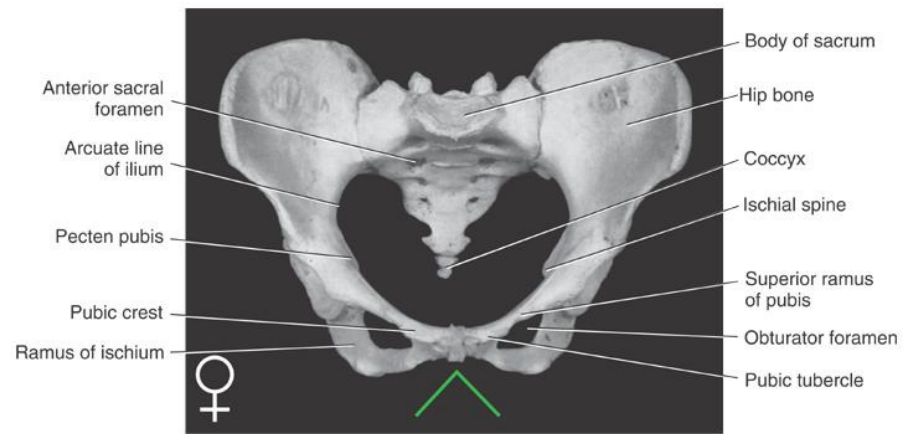
(a) Sagittal section

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