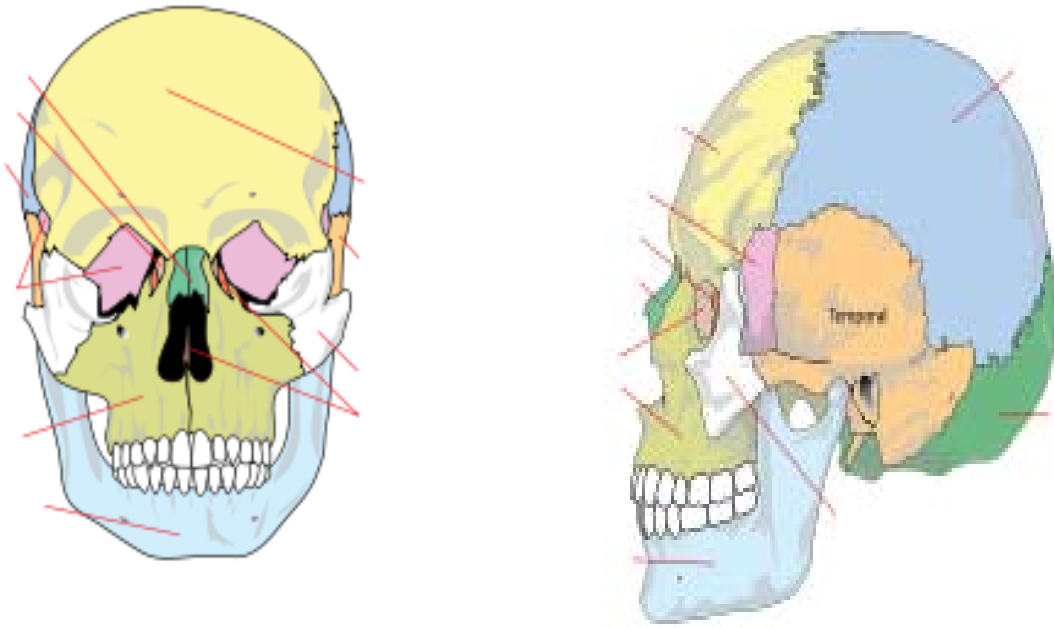


Axial Skeleton

What bones make up the axial skeleton? _____, _____, _____

Skull

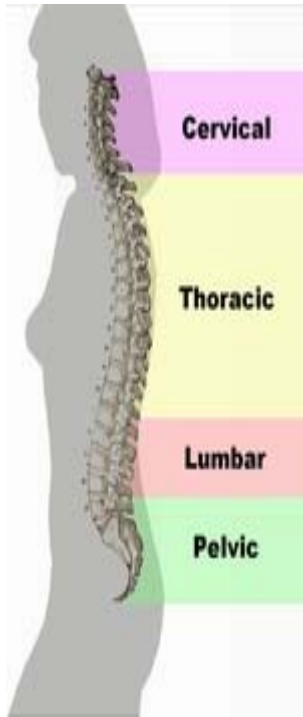


Bones (place number on correct bone):

1. Frontal
2. Parietal
3. Occipital
4. Temporal
5. Zygomatic
6. Sphenoid
7. Nasal
8. Ethmoid
9. Lacrimal
10. Maxilla
11. Mandible

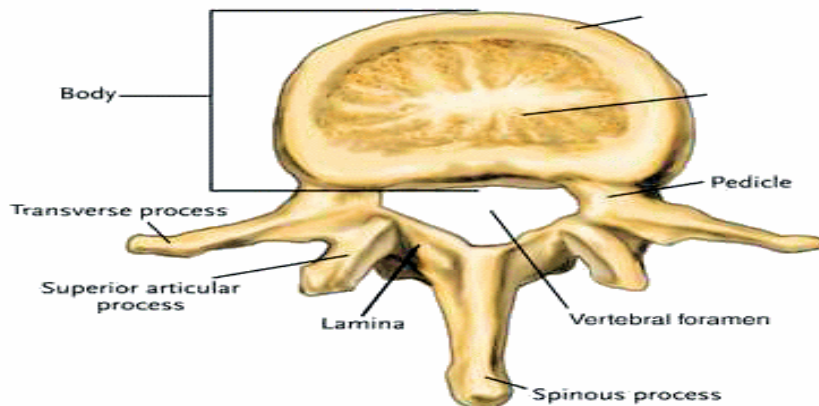
Vertebral Column

The vertebral column contains 33 bones including: 7 cervical, 12 thoracic, 5 lumbar, 5 fused sacral and 4 fused coccyx bones.



All vertebrae have the following:

- Body (for weight bearing)
- Articular process (to anchor adjacent vertebrae)
- Pedicles and laminae (increase size of vertebral foramen)
- Transverse process and spinous process (for muscle and ligament attachment)



Features of Vertebrae

Vertebrae	Picture	Body	Spinous Process	Other Features
Atlas (C1) Axis (C2)	<p>Atlas (C1) Dens — Axis (C2)</p>	Atlas=No body Axis=Body	Atlas= No Process Axis= Bifid process	Both= Transverse foramen Axis= Dens/odontoid process
Cervical		Small body	Short, bifid process	Transverse foramen (for vertebral artery) Triangular foramen
Vertebra Prominens (C7)		Body	Longest process, but not bifid	
Thoracic	<p>Thoracic Vertebrae</p> <p>Axial (Overhead) View Lateral (Side) View</p>	Heart-shaped body	Long, downward process	Costal facets on body for head of rib Costal facet on transverse process for tubercle of rib
Lumbar	<p>Lumbar Vertebrae</p> <p>Axial (Overhead) View Lateral (Side) View</p>	Kidney-shaped body	Short and flat	
Sacral and Coccyx		Body	Fused making medial sacral crest	Coccyx attached to inferior end

Ribs

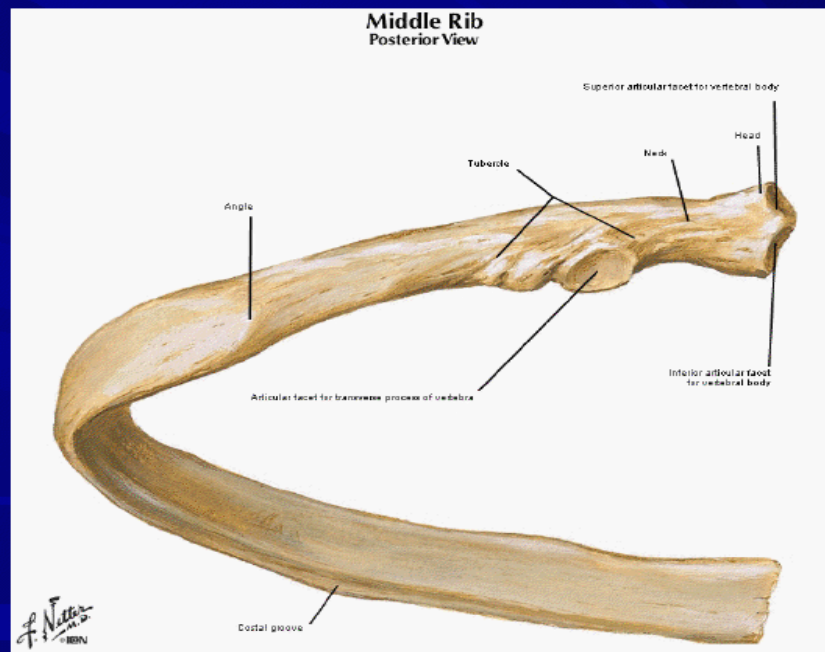
Ribs

- * Know the parts; **head, neck, tubercle, facets, angle, shaft, costal groove**
- * **True ribs:** 1st-7th pairs - attach directly to the sternum through their own costal cartilage
- * **False ribs:** 8th, 9th & 10th – indirect connection with the sternum
- * **Floating ribs:** 11th and 12th – end in the posterior abdominal musculature
- * **Typical ribs:** 3rd-9th, have all features
- * **Atypical ribs:** 1st, 2nd, 10th & floating ribs - don't have all the features

Costal margin - the lower edge of the chest (thorax) formed mostly by the false ribs - specifically, from the **seventh** rib to the **tenth** rib.

Typical rib (3rd-9th)

Head?
Facets?
Neck?
Tubercle?
Angle?
Shaft?



Posterior end

right or left??

Anterior end