



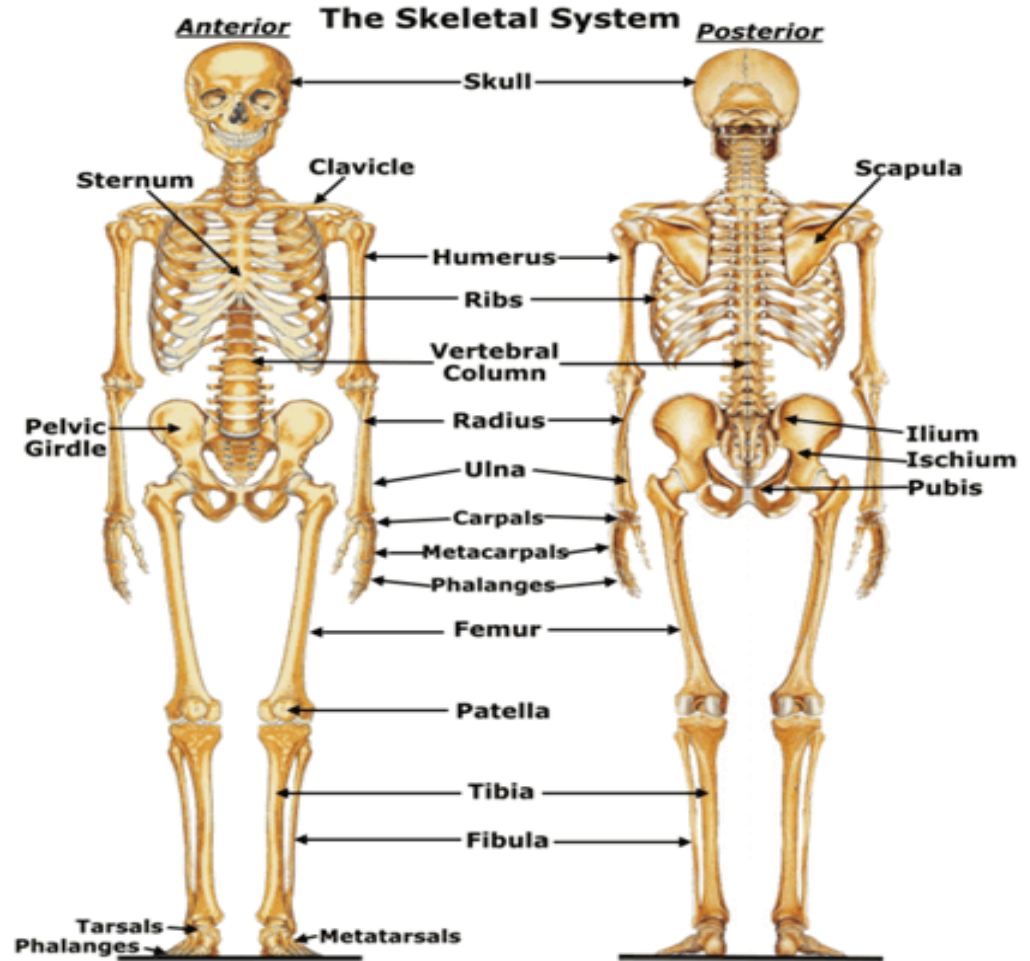
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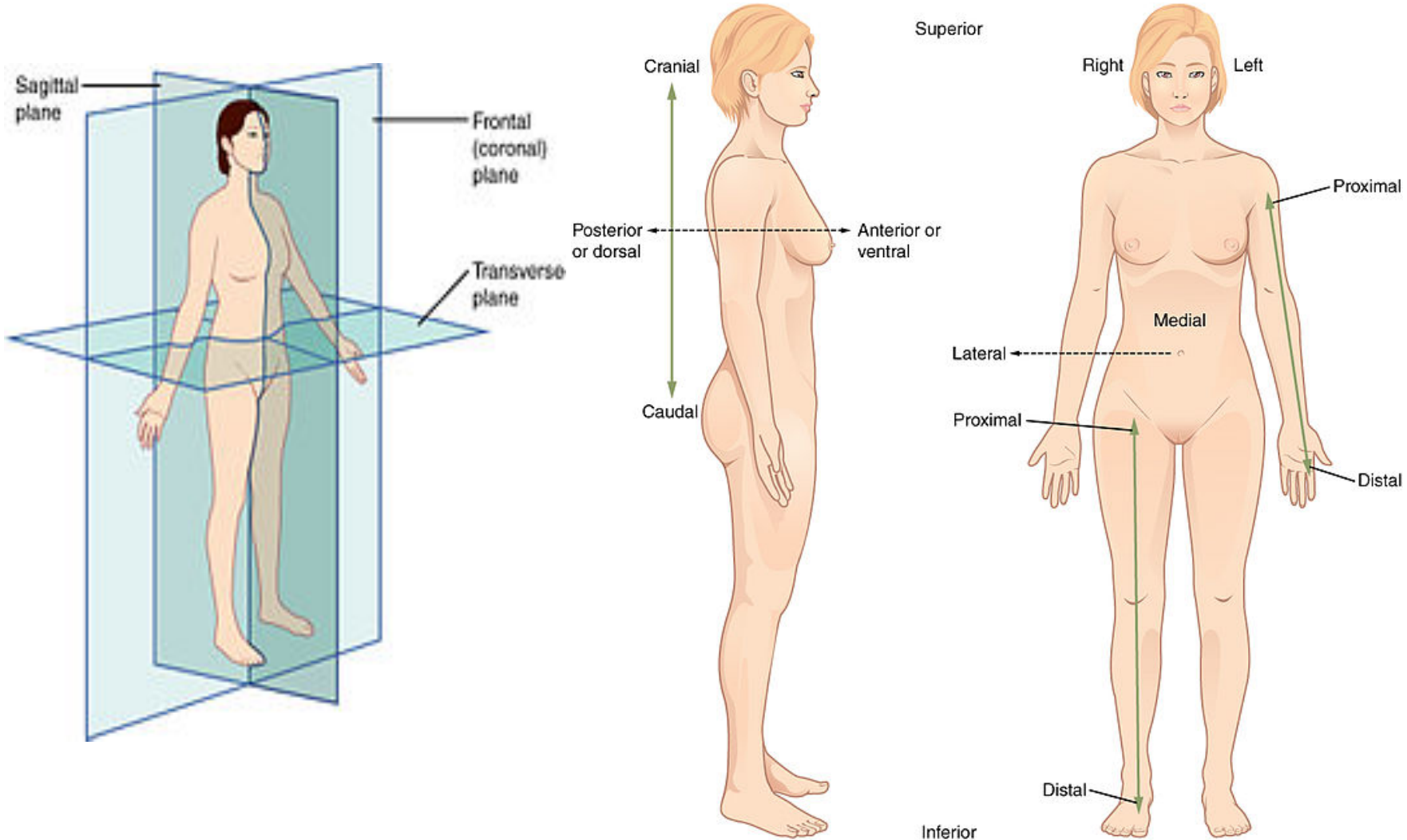
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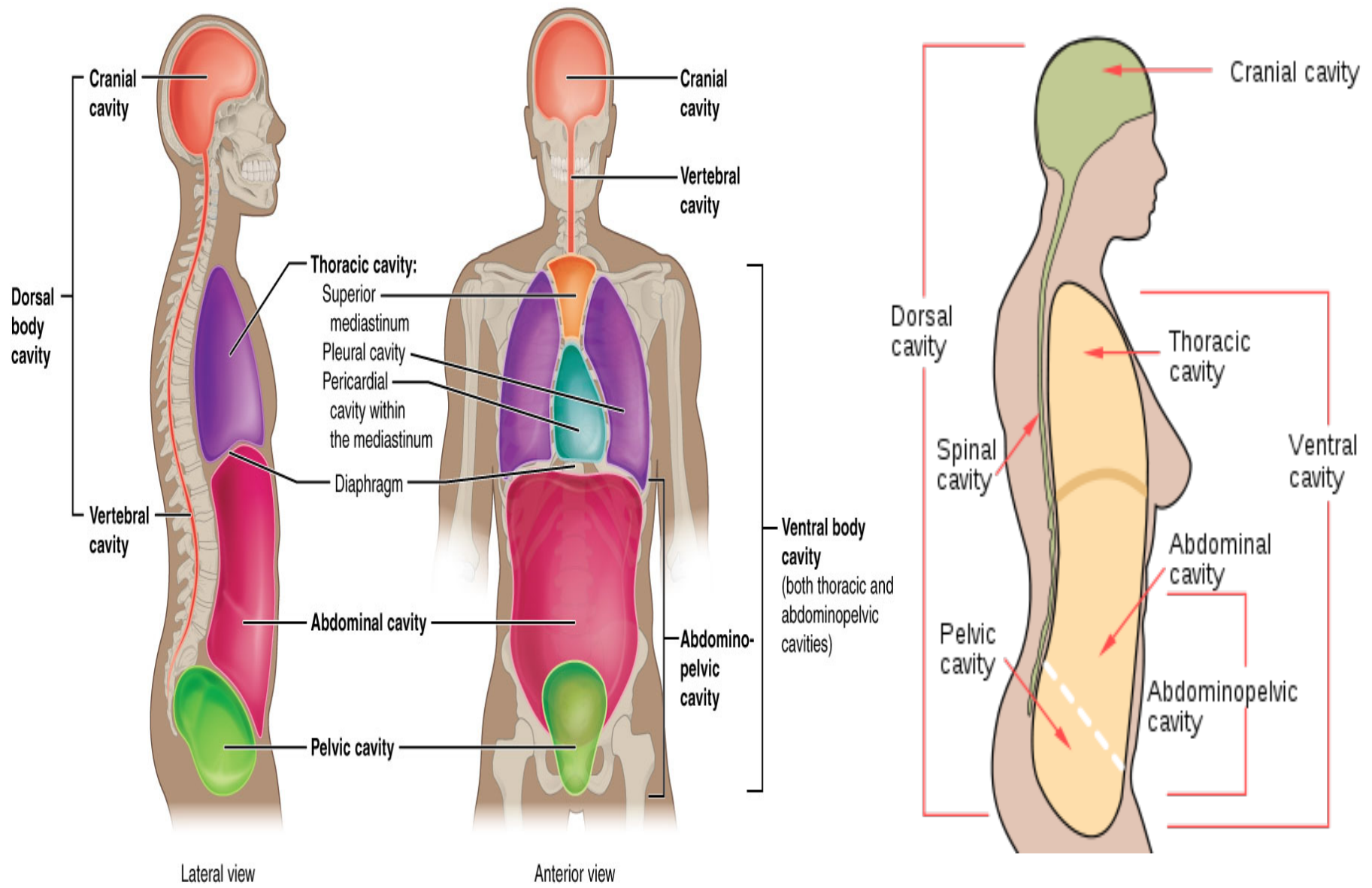
The Human Skeleton



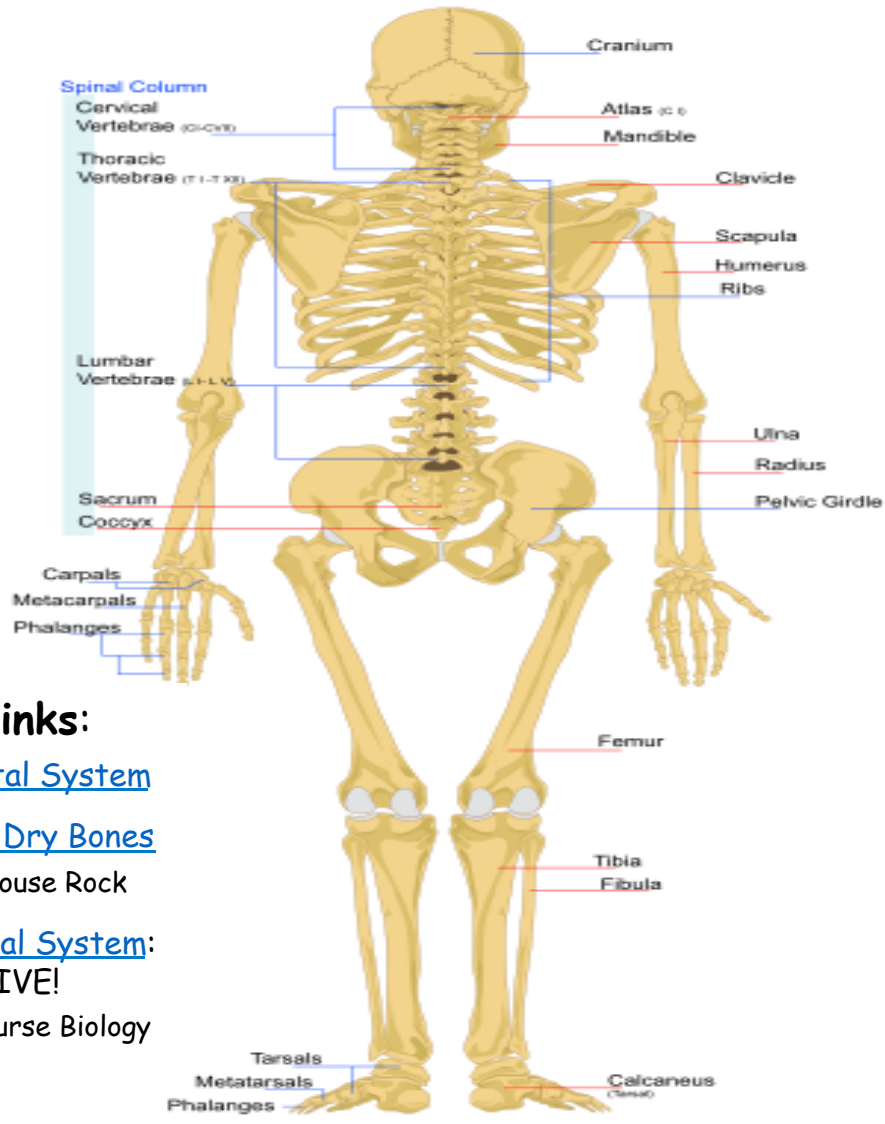
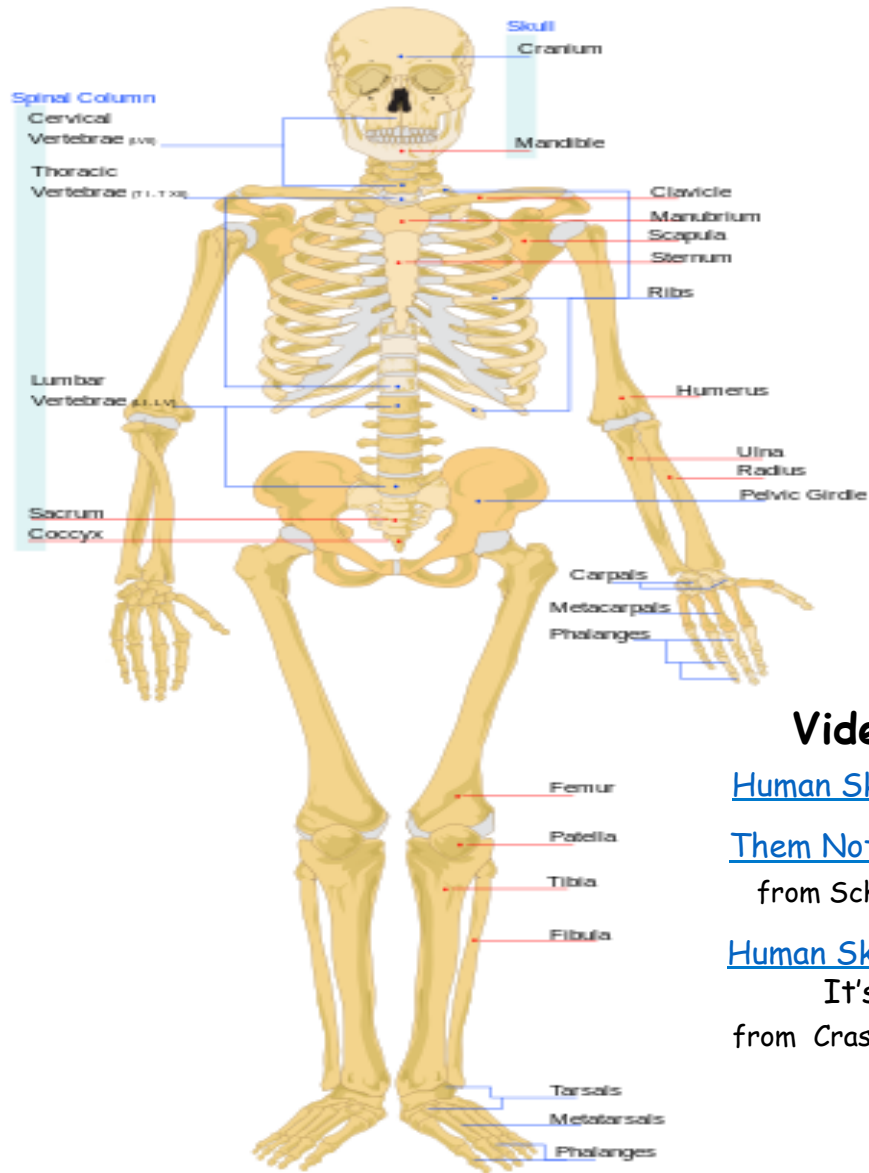
Anatomical Direction Terms and Body Planes



Human Body Cavities



Human Skeleton Anterior & Posterior View



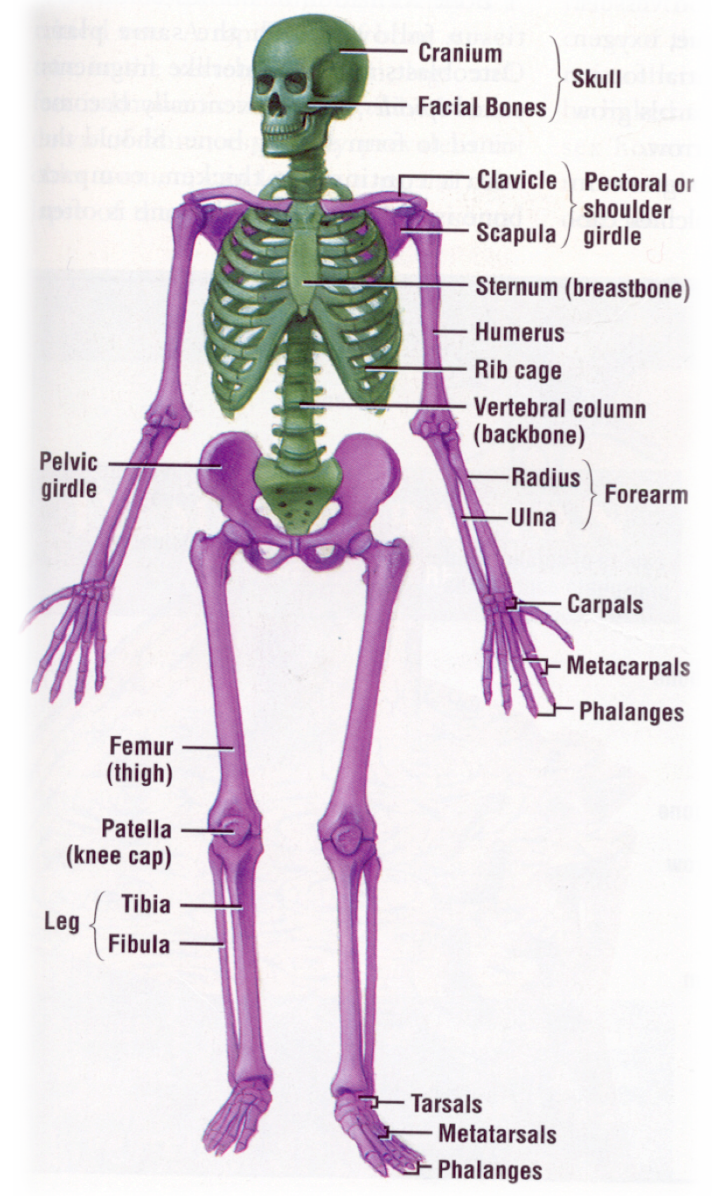
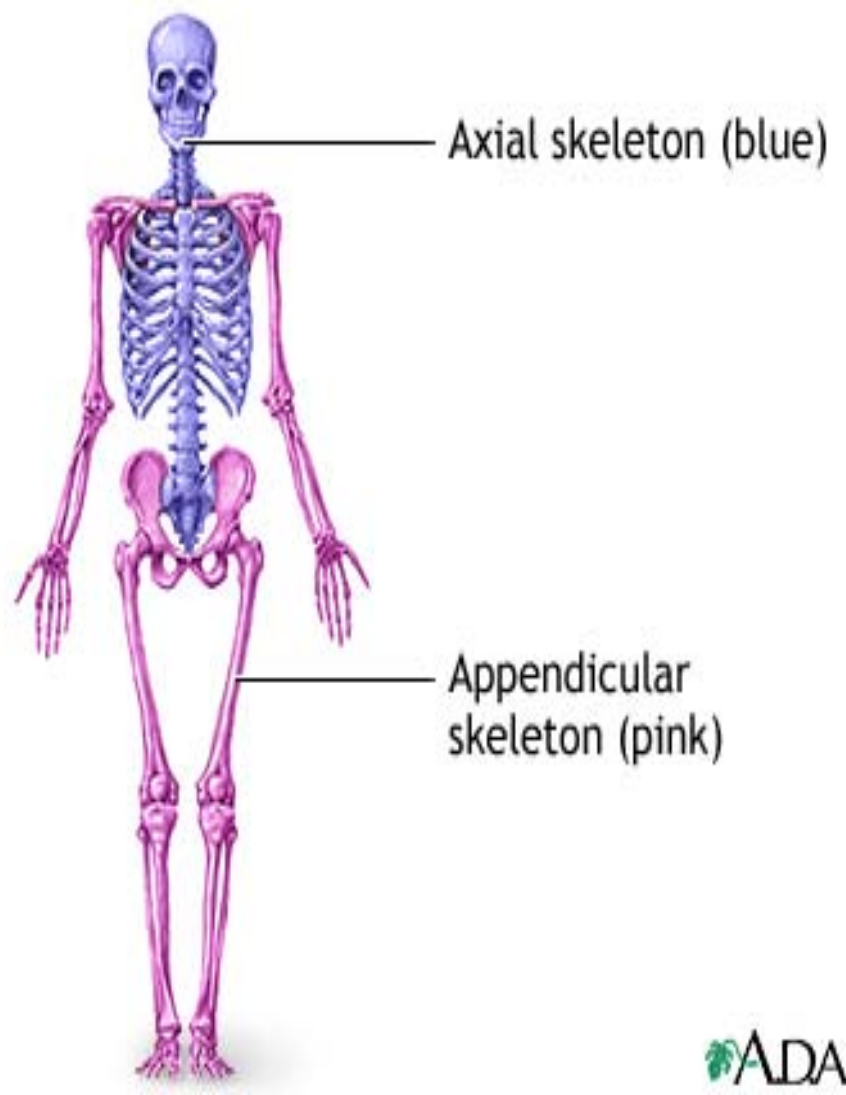
Video links:

[Human Skeletal System](#)

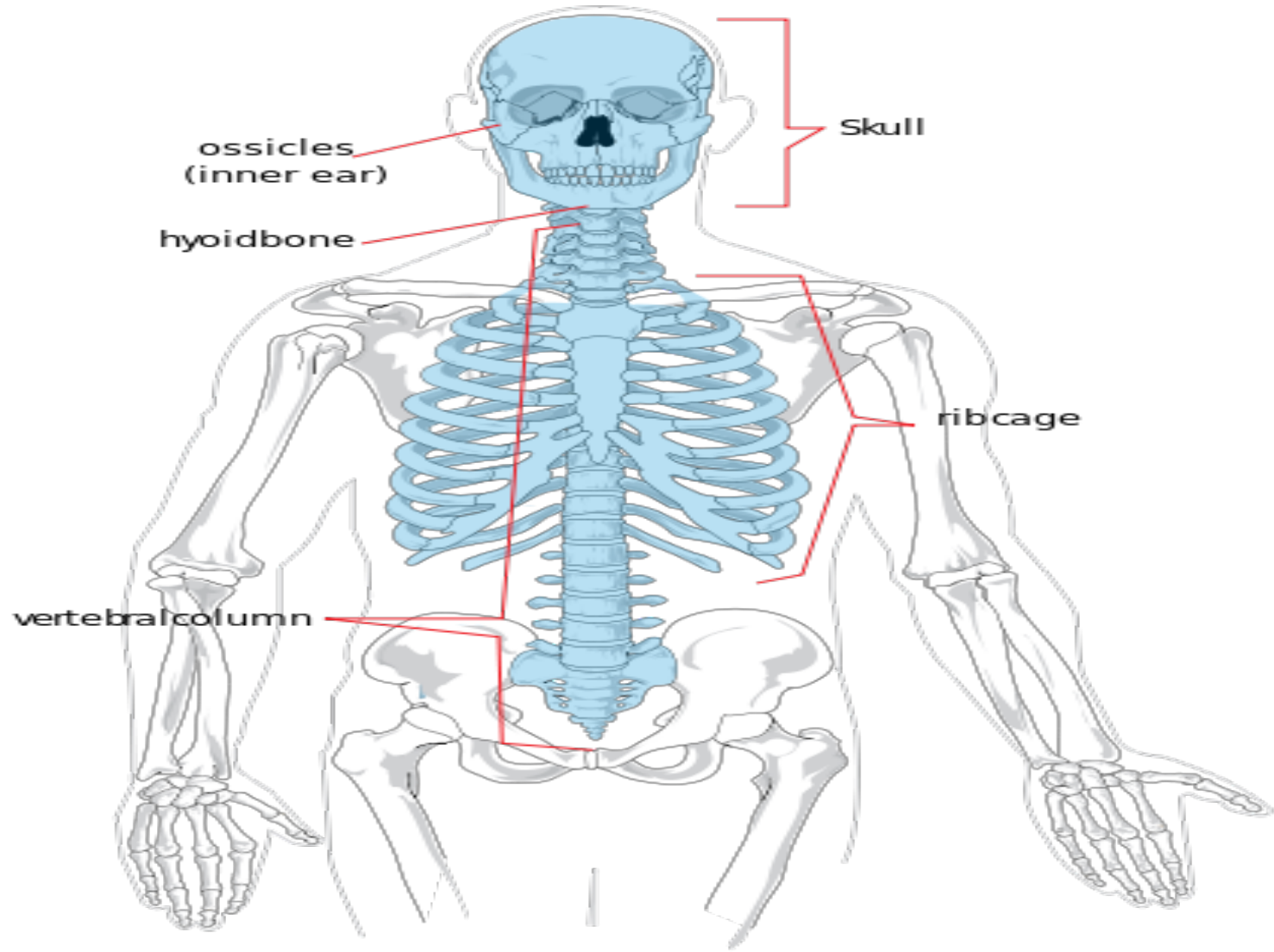
[Them Not So Dry Bones](#)
from Schoolhouse Rock

[Human Skeletal System:](#)
It's ALIVE!
from Crash Course Biology

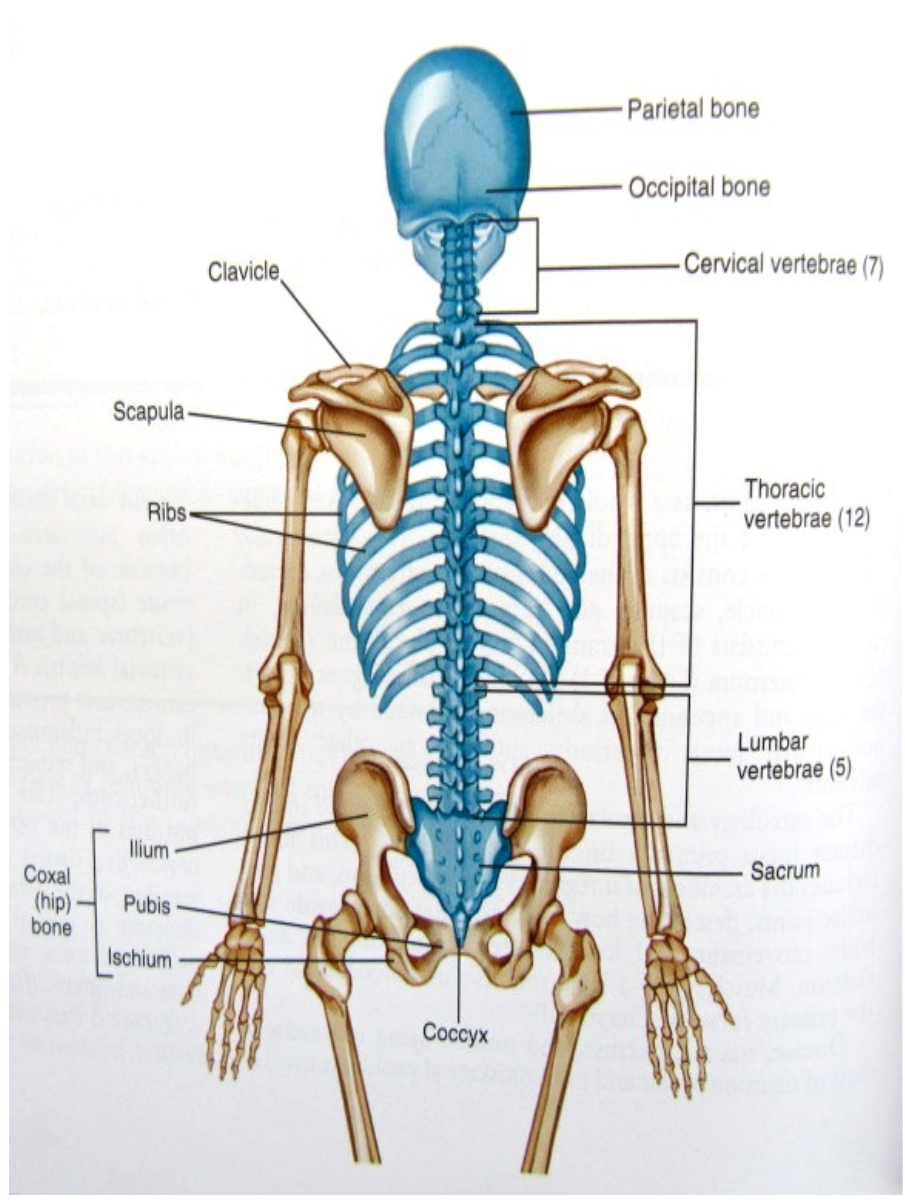
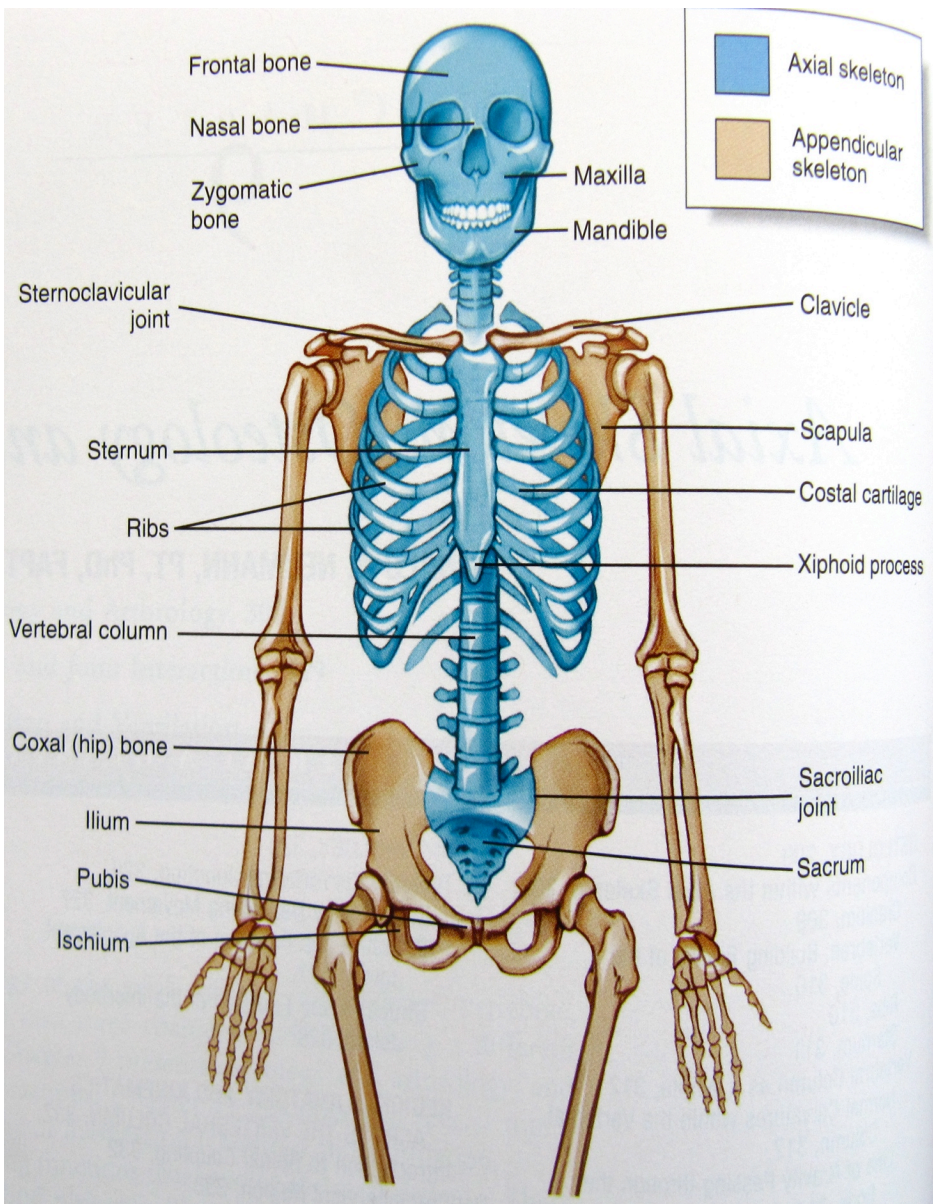
Axial & Appendicular Skeleton



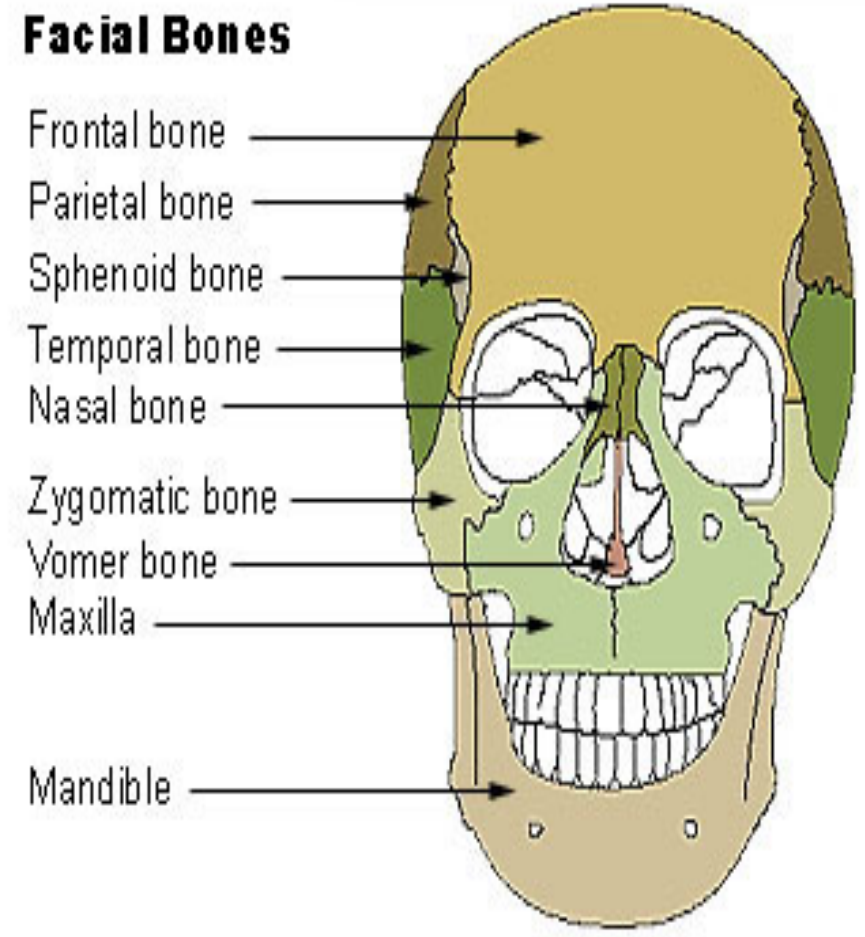
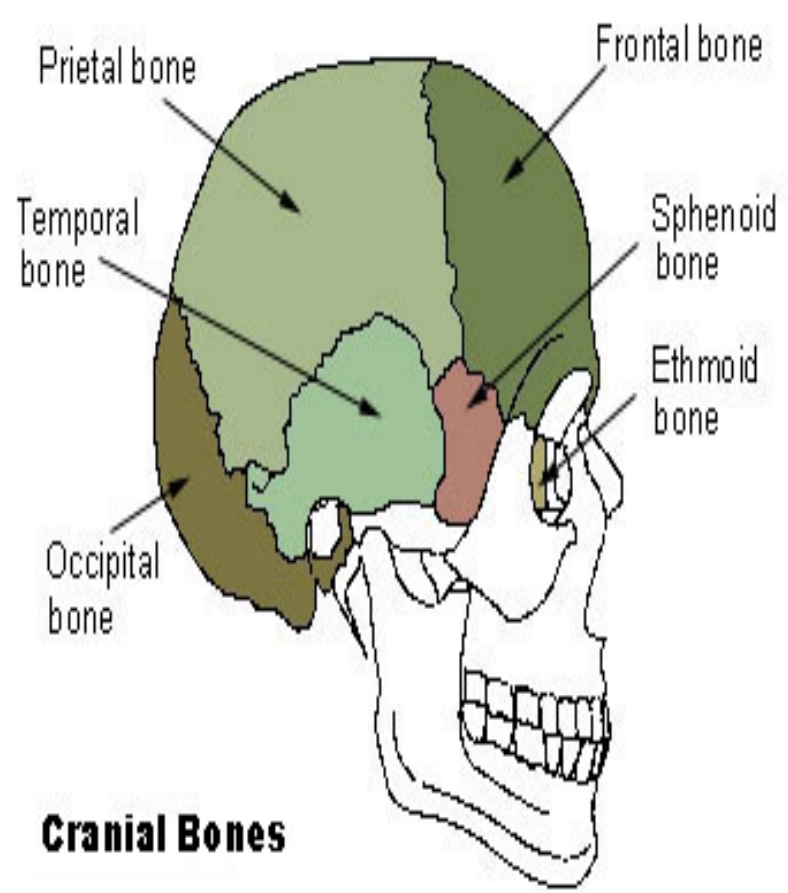
Axial Skeleton



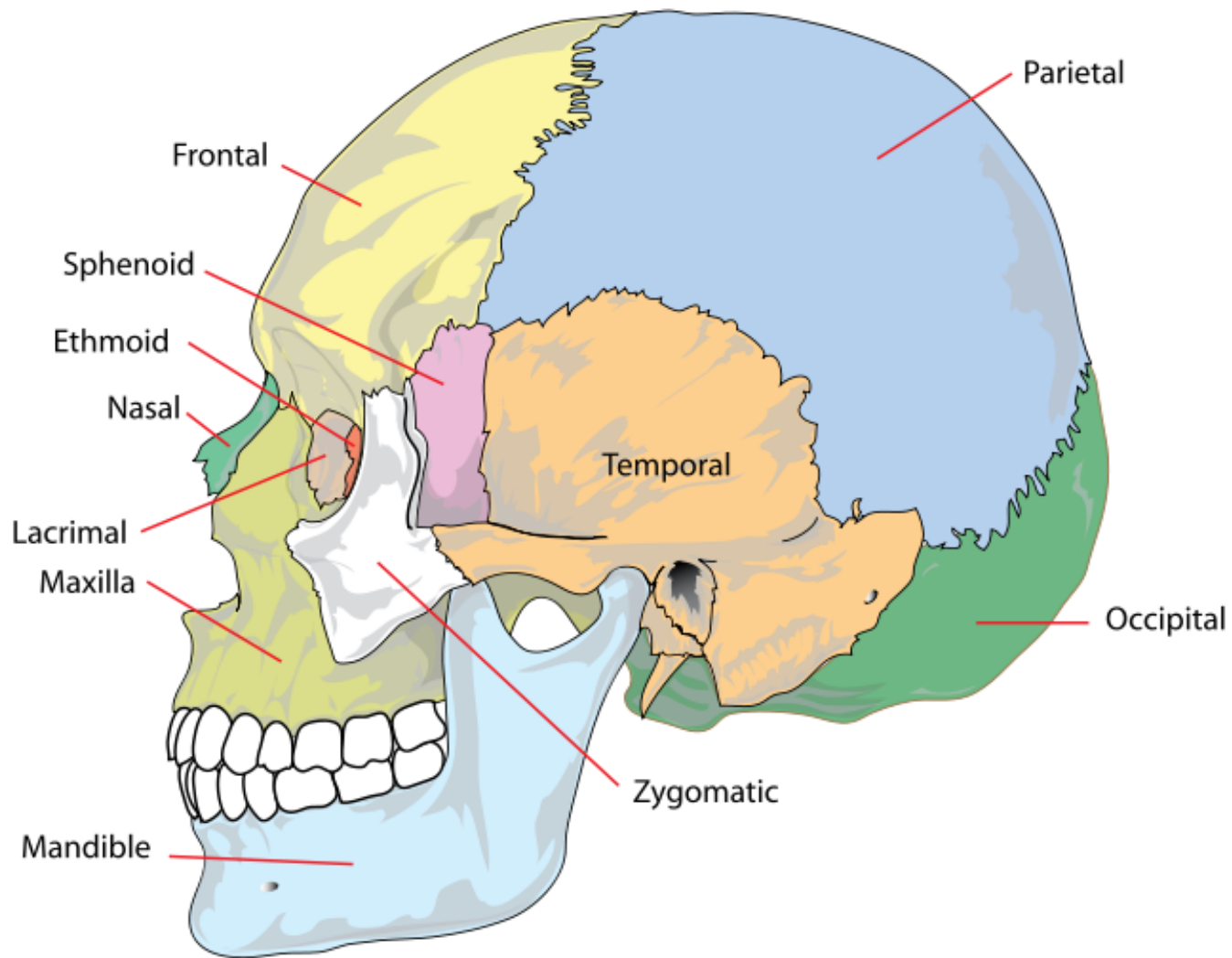
Axial Skeleton



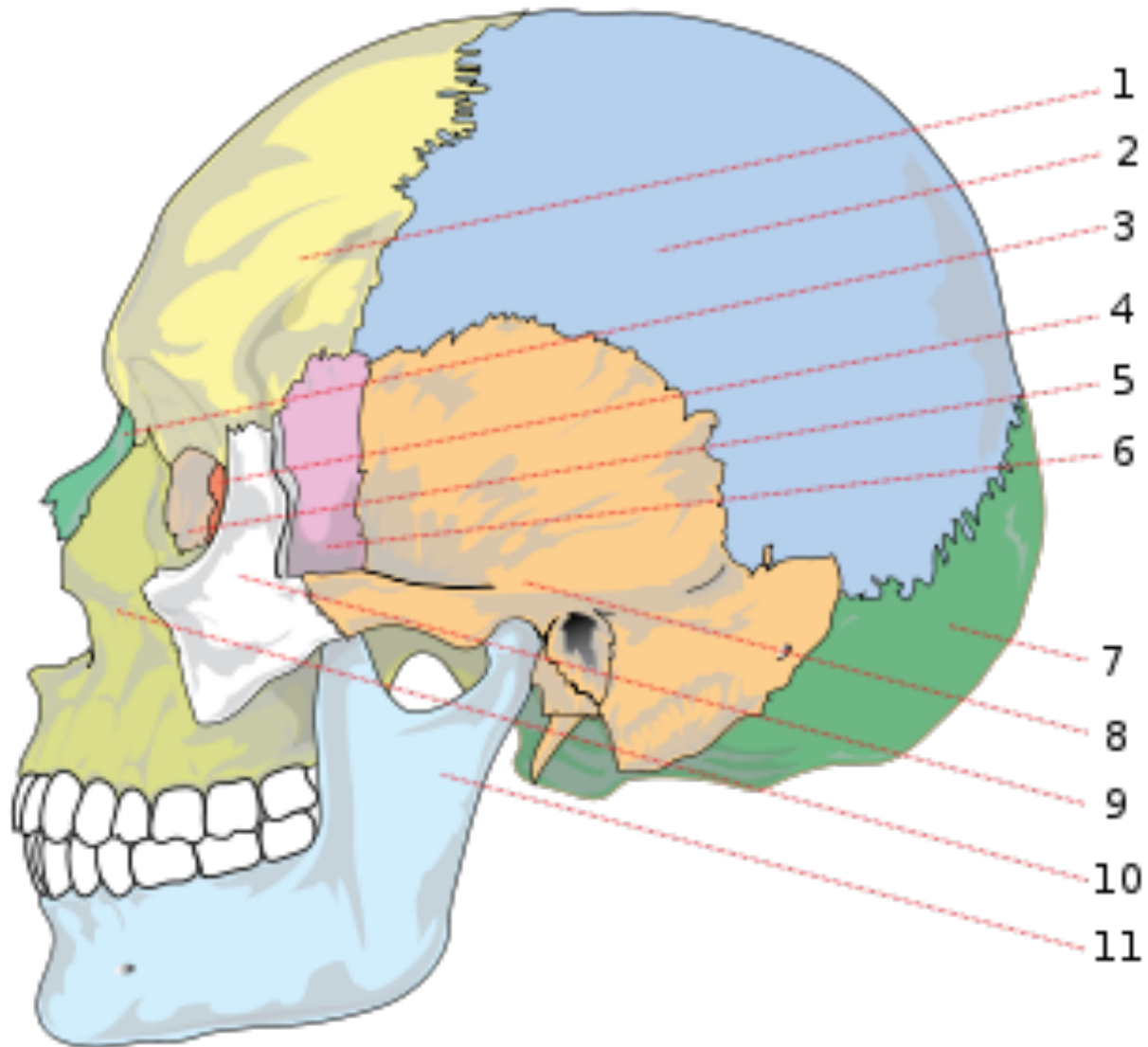
Axial Skeleton: Cranial & Facial Bones



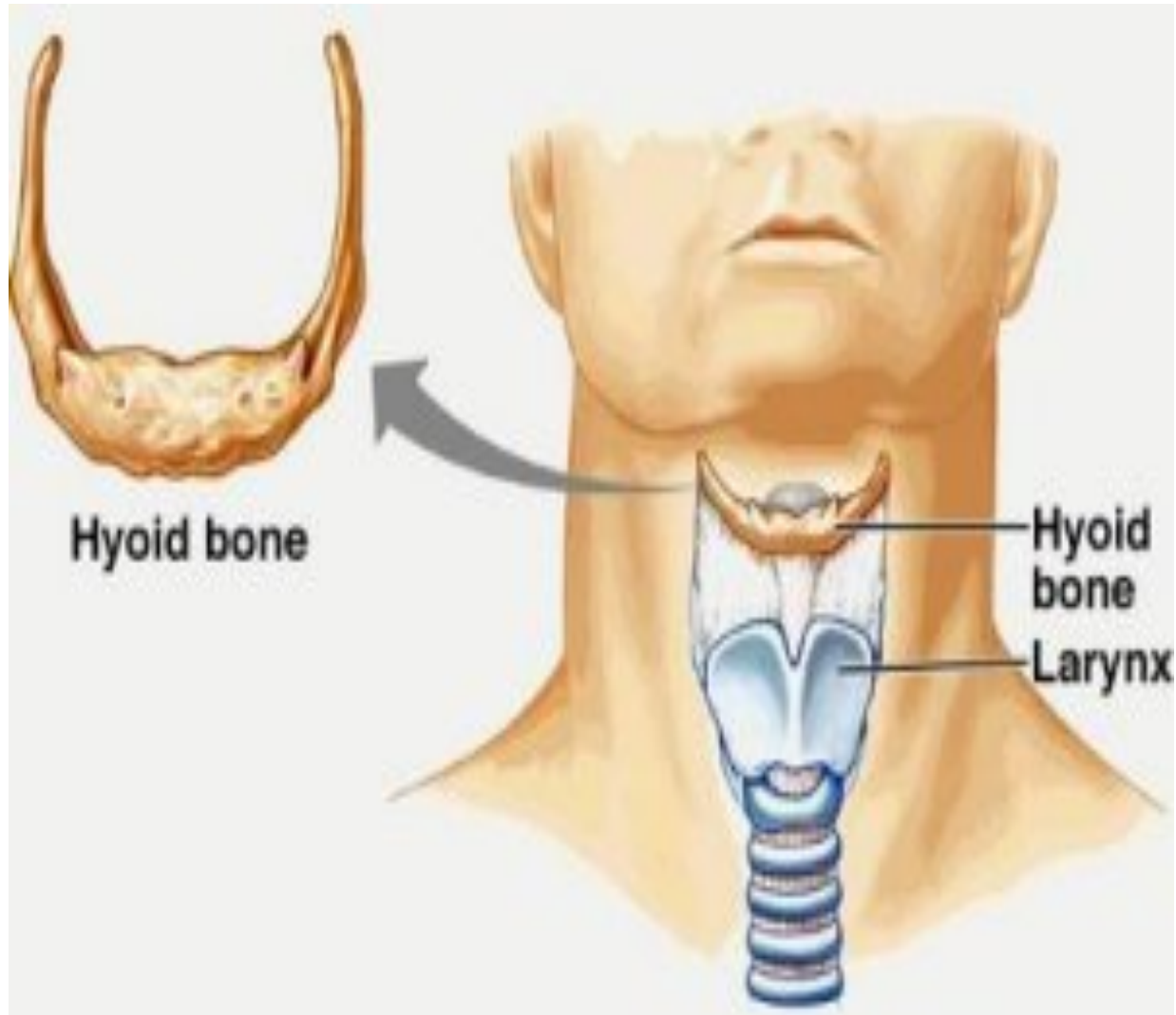
Axial Skeleton: Human Skull



Axial Skeleton: Human Skull (Test your knowledge!)



Axial Skeleton: Hyoid Bone



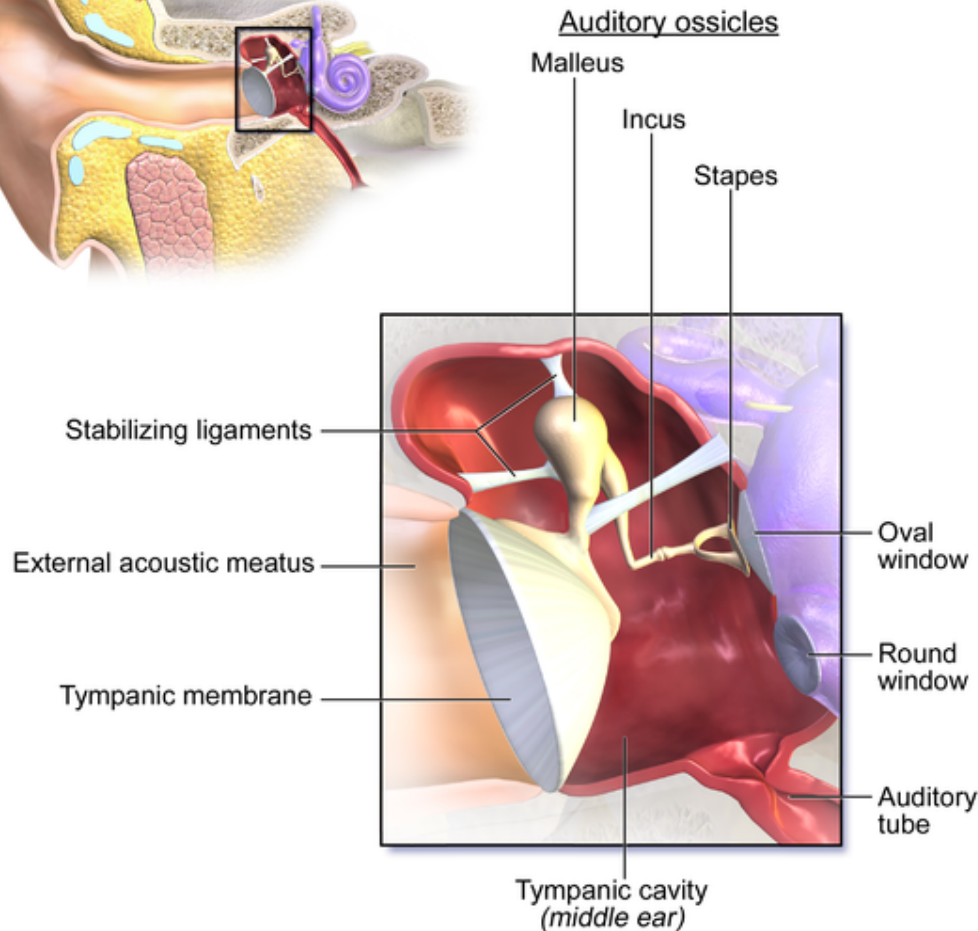
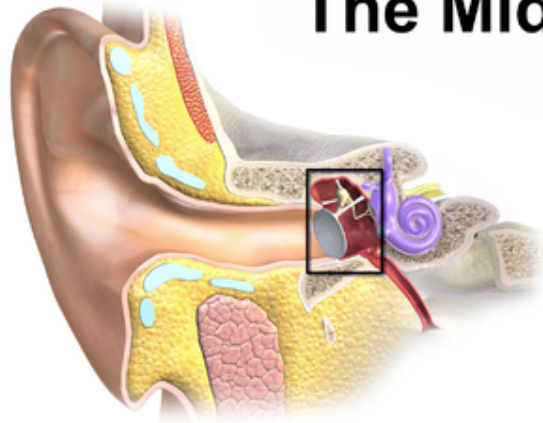
The hyoid is a horseshoe-shaped bone located in the anterior midline of the neck between the chin and the thyroid cartilage.

Its primary function is to anchor the tongue.

Unlike other bones, the hyoid is only distantly connected to other bones by muscles or ligaments.

Axial Skeleton: Auditory Ossicles

The Middle Ear



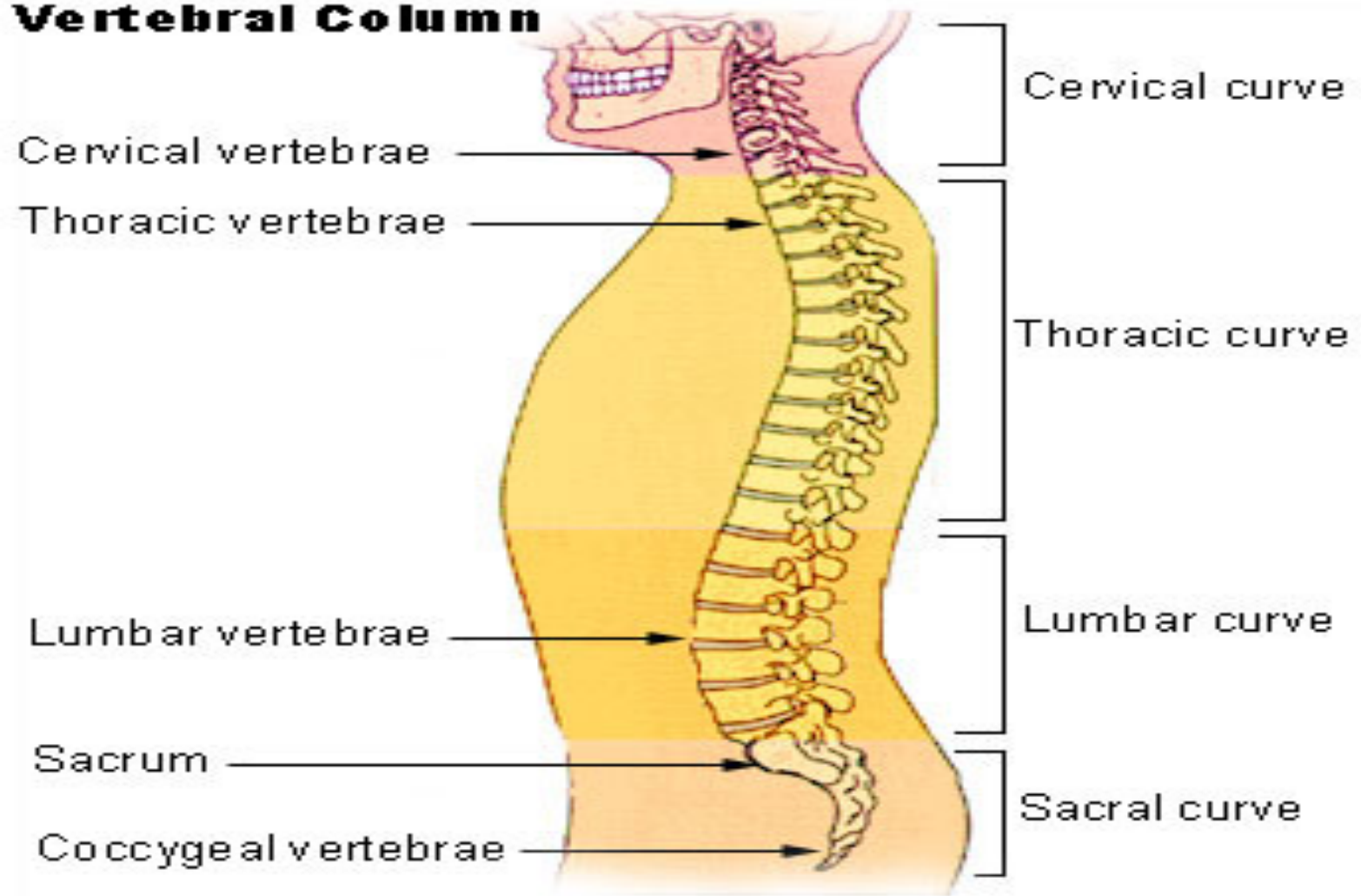
The auditory ossicles are three bones in the middle ear that are among the smallest bones in the human body.

As sound waves vibrate the tympanic membrane (eardrum), the vibration moves the nearest ossicle, the malleus.

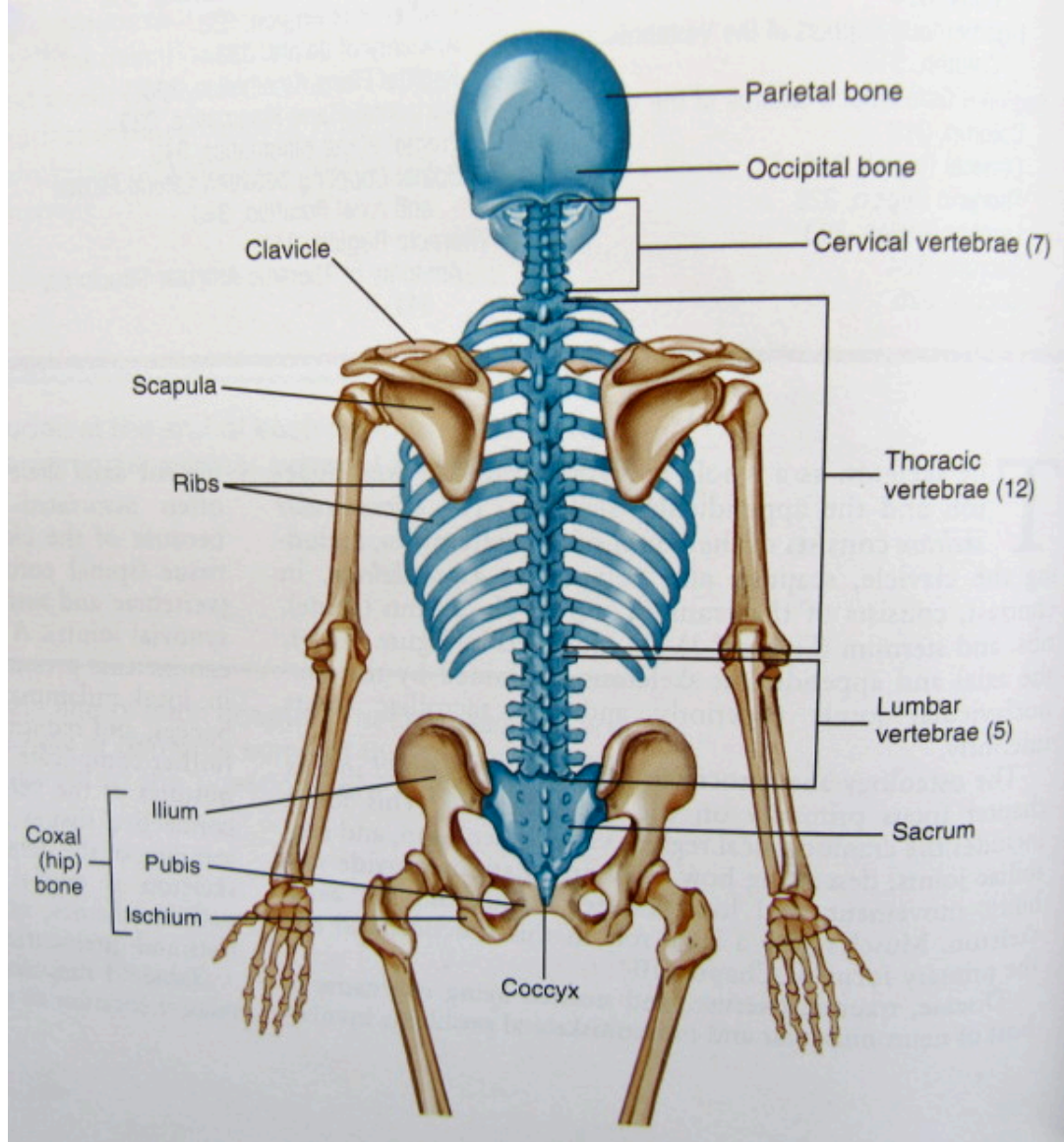
The malleus then transmits the vibrations, via the incus, to the stapes, and ultimately to the membrane of the oval window. The waves ultimately stimulate nerve impulses to the brain.

Axial Skeleton: Vertebral Column

Vertebral Column



Axial Skeleton: Vertebral Column



Cervical:

- Seven neck vertebrae, C1-C7.
- C1=atlas, C2=axis, C7=vertebra prominens (run your hands down the back of your neck the largest bump is due to the spinous process of C7!)

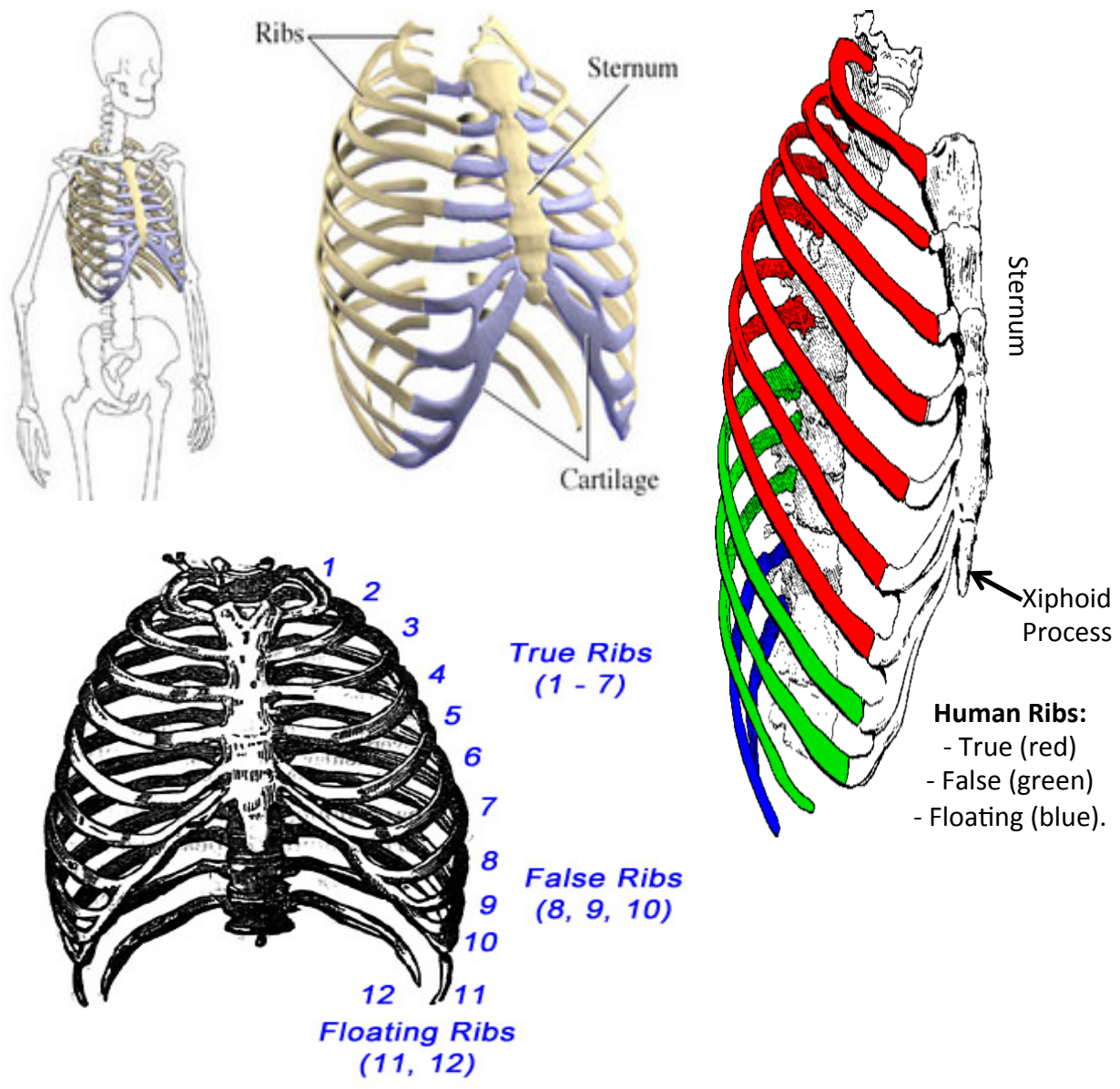
Thoracic:

Twelve thoracic vertebrae, articulate with the twelve pair of ribs.

Lumbar:

- Largest vertebrae in lower back (lumbar region)
- Sacrum: Five vertebrae that usually fuse during development.
- Coccygeal: 'tail bones', 3-5 very small vertebrae

Axial Skeleton: Thoracic Cage (Rib Cage)

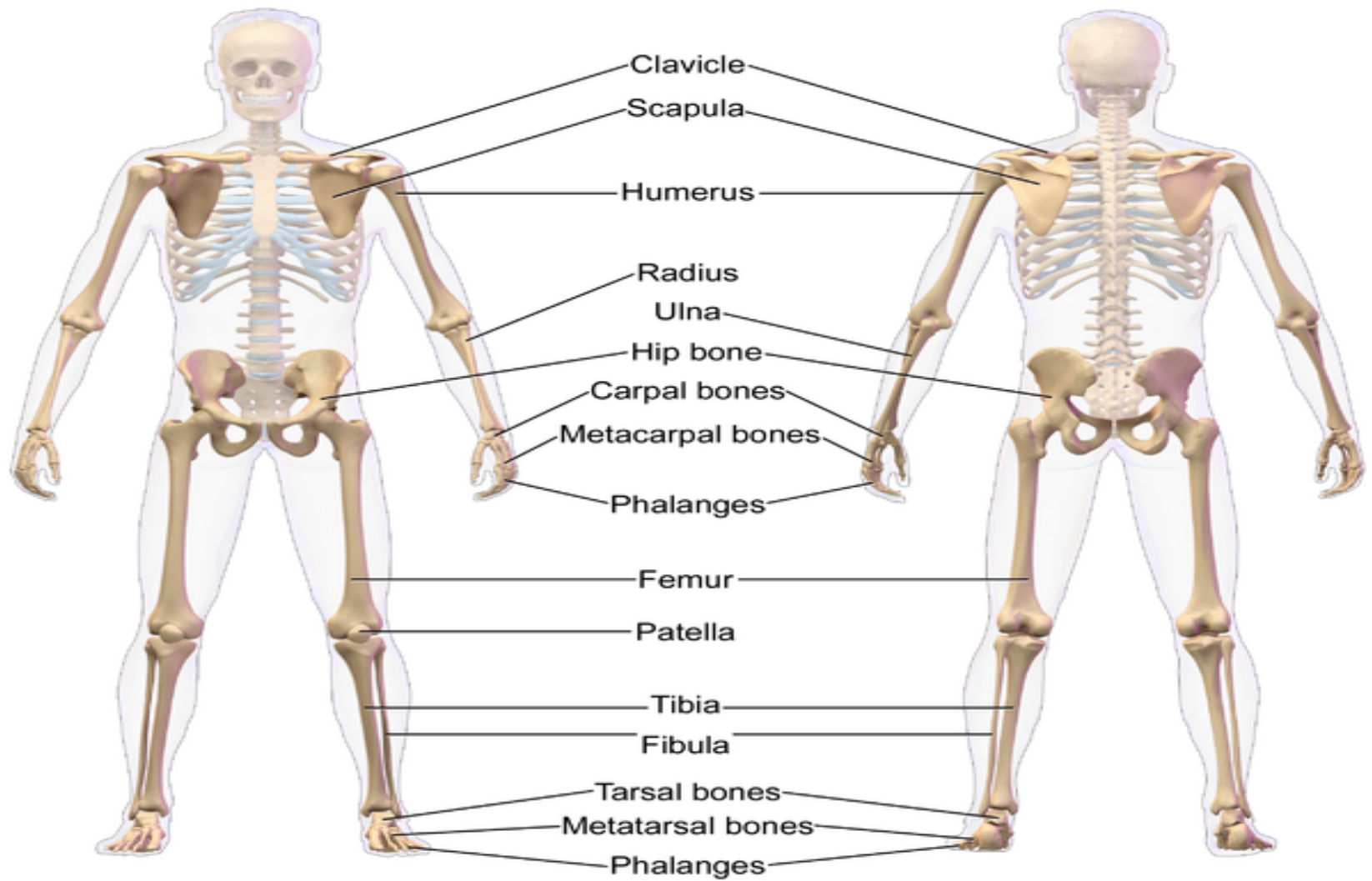


The rib cage is formed by the vertebral column, ribs, and sternum and encloses and protects the heart and lungs.

In humans, the rib cage, also known as the **thoracic cage**, is a structure made of boner and cartilage that surrounds the thoracic cavity and supports the pectoral girdle.

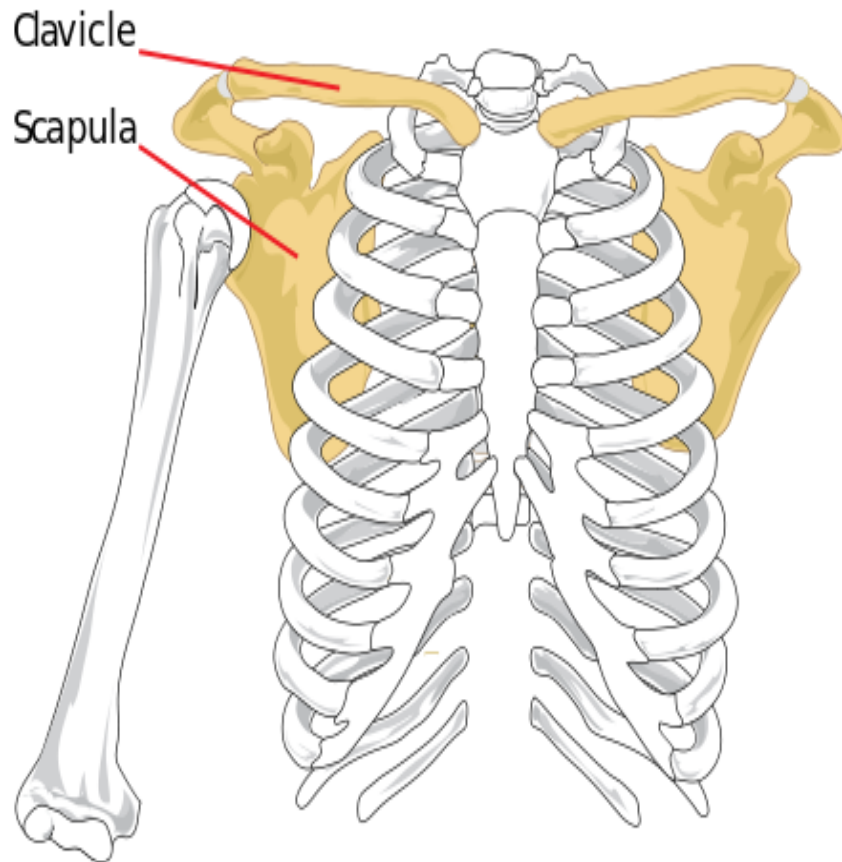
A typical human rib cage has 24 ribs, the sternum (with xiphoid process), costal cartilages, and the 12 thoracic vertebrae.

Appendicular Skeleton

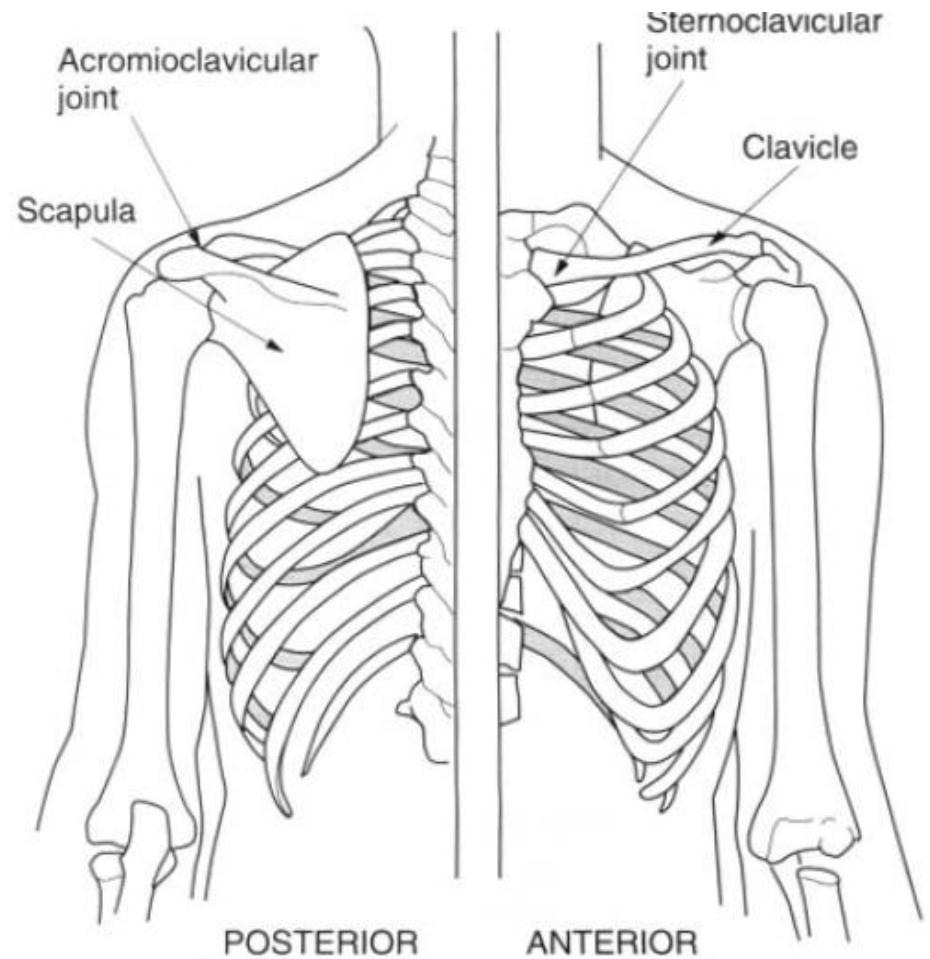


The Appendicular Skeleton

Upper Extremity: Pectoral Girdle

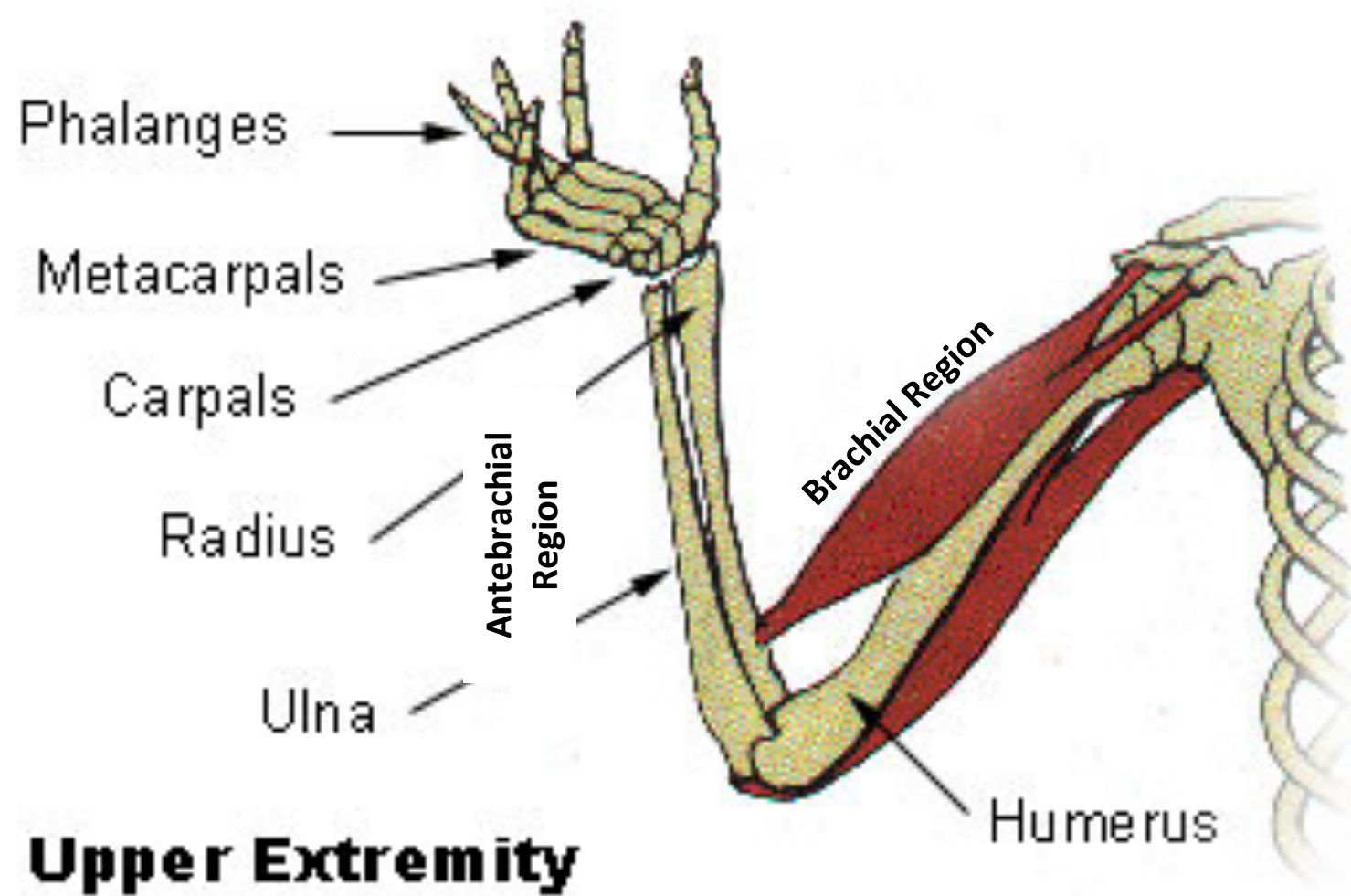


Front view

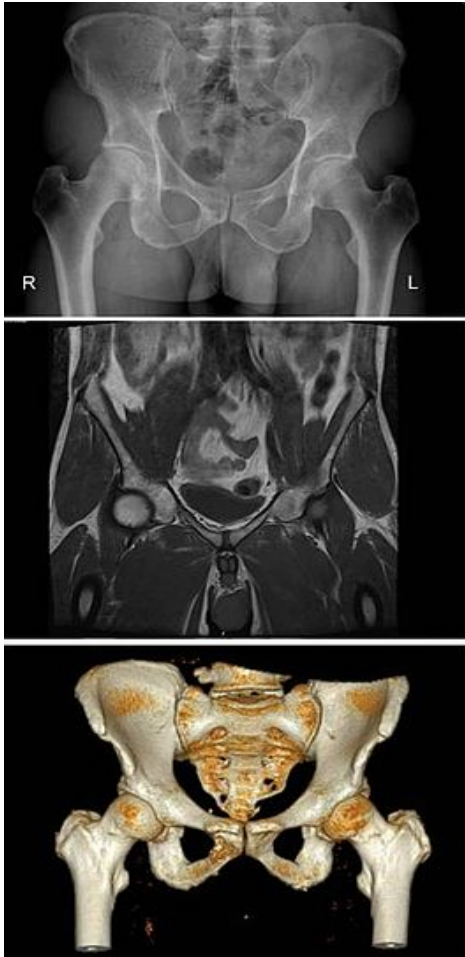


The pectoral girdle (a.k.a. shoulder girdle) is the set of bones connecting the upper limb to the axial skeleton on each side.

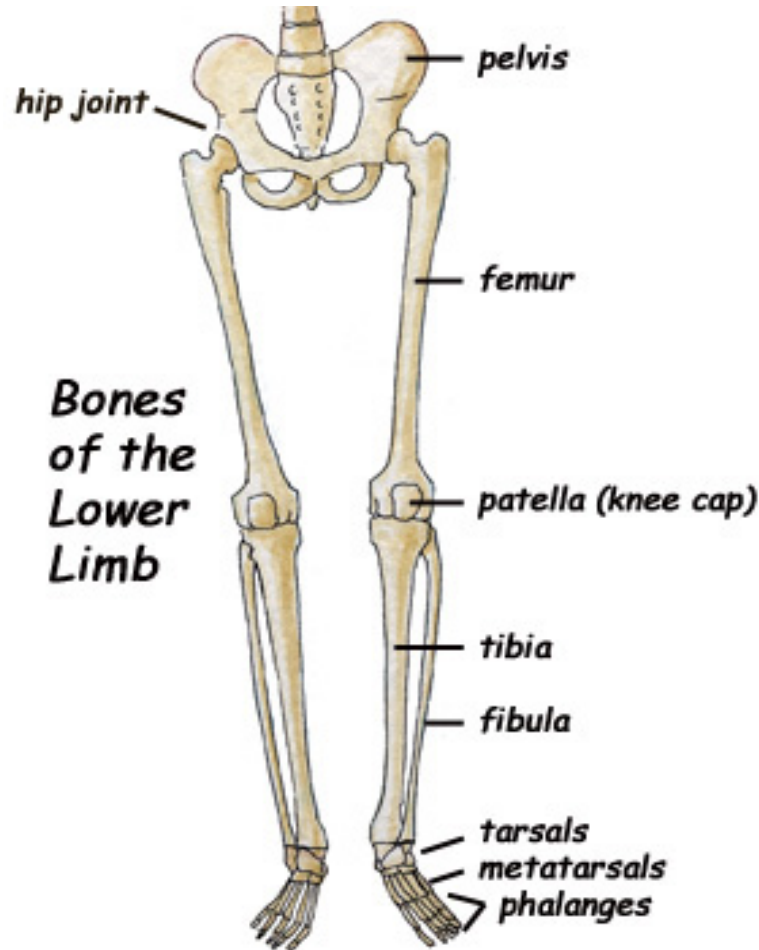
Upper Extremity: Arm - Brachial, Antebrachial, Carpal & Hand



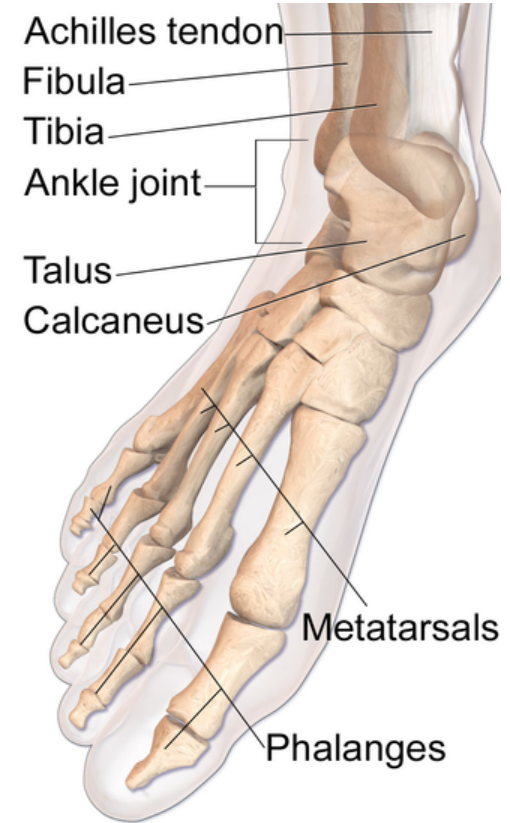
Lower Extremity: Pelvic Girdle, Leg & Foot



Human pelvis anterior, imaged by x-ray (top), magnetic resonance imaging (middle), and 3-dimensional computed tomography (bottom).



Bones of the Lower Limb



Lower Leg and Foot

Confused?

Here are some links to fun resources that further explain Human Organ Systems:

- [Anatomical Terms of Direction and Planes of Section](#) from the Penguin Prof
- [Anatomical Planes and Spatial Relationships in the Human Body video](#) from Interactive Biology.
- [Interactive Tutorial on Human Organs](#), from BBC Science: Human Body & Mind.
- [Human Anatomy Systems](#) from InnerBody.com.
- [Human Body 101 video](#) from National Geographic.
- See the many other Organ System videos and animations linked on previous slides!

(You must be in PPT slideshow view to click on links.)

Smart Links

