

NOTES: Human Skeletal System Part 2

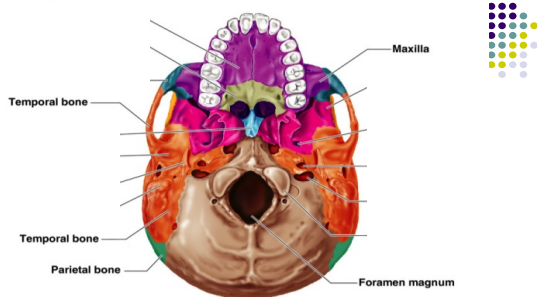
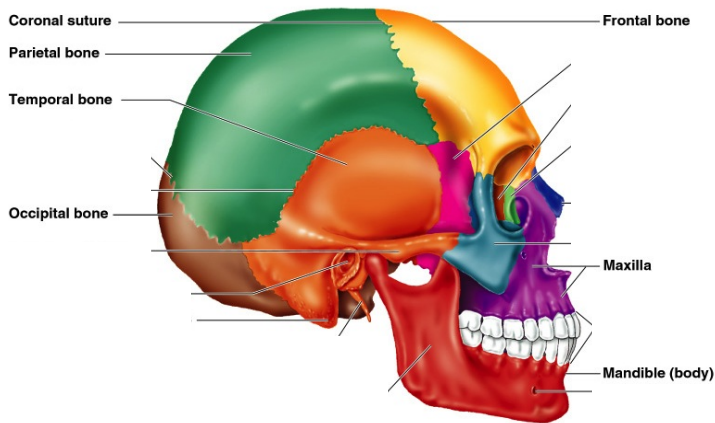
Human Skeleton

- _____ in the adult human body
- Divided into 2 parts:
- _____
 - _____
 - Skull
 - Vertebral column
 - Rib cage
 - _____
 - Bones of arms and legs
 - Bones of shoulder
 - Pelvis



The Axial Skeleton

- Divided into three parts
- _____
- _____
- _____ (bony thorax)



● Inferior View of Skull

The Skull

- Two sets of bones
 - _____
 - _____
- Skull bones are _____
- Only the mandible is attached by a freely movable joint

Bones of the Cranium (Skull)

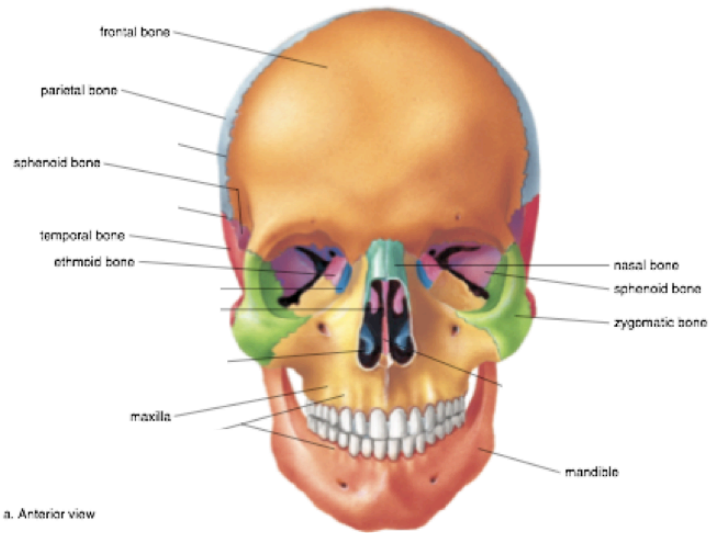
- _____
- Bones are attached by immovable joints called **sutures**
- Made up of 8 flat bones
 - 1 _____ bone
 - 2 _____ bones
 - 1 _____ bone
 - 2 _____ bones
 - 1 sphenoid bone
 - 1 ethmoid bone
- _____
 - opening in the occipital bone
 - Area where spinal cord joins the brain

The Fetal Skull

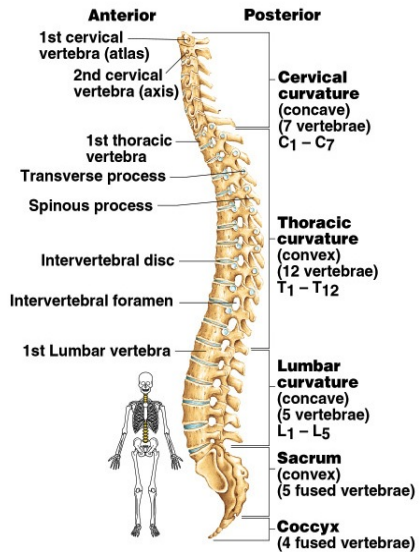
- _____ – fibrous membranes connecting the cranial bones
 - Allow the brain to grow
 - _____ within _____ after birth

Facial Bones

- _____
- 2 bones that form the _____
- _____
- _____
- Only movable bone of the skull
- Contains tooth sockets for 16 teeth
- _____
- Forms bridge of the nose
- Zygomatic bone
 - 2 cheek bones



a. Anterior view

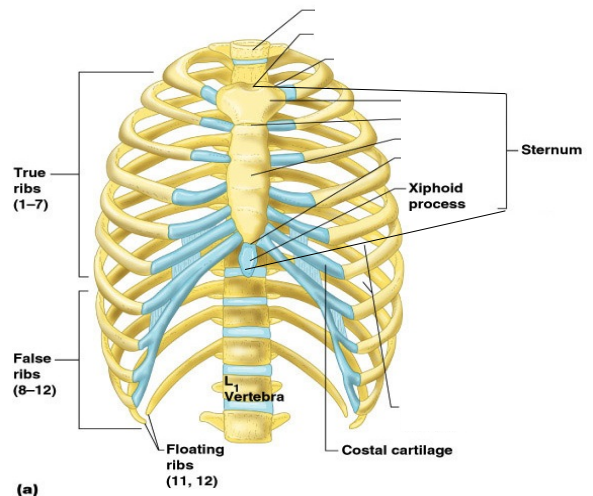


The Vertebral Column

- Vertebrae _____ discs
- (pads of fibrocartilage)
- The spine has _____
- Each vertebrae is given a name according to its location
 - C = Cervical (C1-C7)
 - T = Thoracic (T1-T12)
 - L = Lumbar (L1-L5)
- Function: _____

The Rib Cage (Bony Thorax)

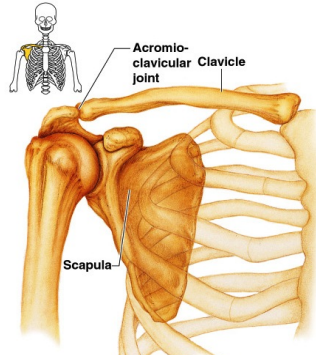
- _____
- Made-up of three parts:
 - 1) _____ -12 ribs connected to the vertebrae
 - _____:
 - Ribs that _____ to the _____
 - _____:
 - Ribs that _____ by a common _____
 - _____:
 - Ribs that _____ to the _____
 - 2) _____
 - Flat, blade-shaped bone
 - Composed of 3 bones: manubrium, body, _____
 - Xiphoid process
 - _____ and smallest portion of sternum
 - Attachment site for diaphragm
 - 3) _____
 - 12 thoracic vertebrae



(a)

The Appendicular Skeleton

- _____
- _____ (appendages)
- _____

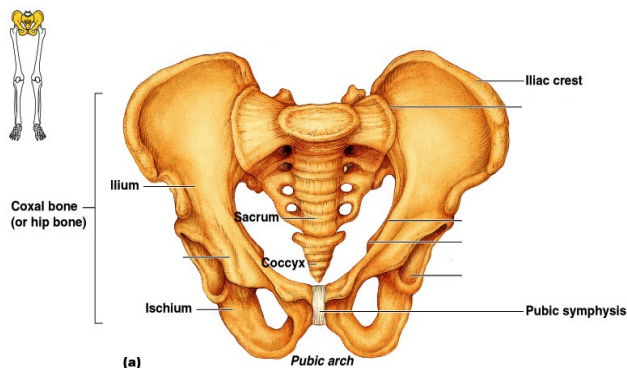
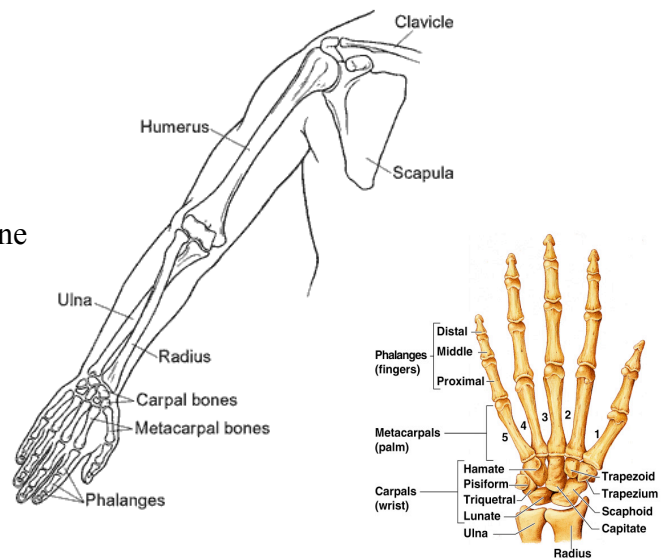


The Pectoral (Shoulder) Girdle

- These bones allow the upper limbs to have _____
- Composed of 4 bones
 - 2 _____ – collarbone
 - Slender and s-shaped
 - Stabilizes shoulder but structurally weak (breaks easily)
 - 2 _____ – shoulder blade
 - Triangular shape

Bones of the Upper Limb

- Humerus (upper arm)
- Radius and ulna (forearm)
- Carpals, metacarpals, phalanges (hand)
- The upper _____ is formed by a single bone
 - _____
- The _____ has two bones
 - _____
 - _____
- The hand
 - _____ – wrist
 - _____ – palm
 - _____ – fingers



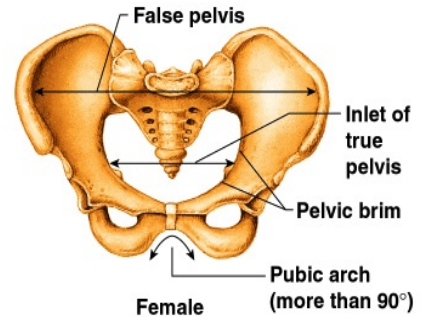
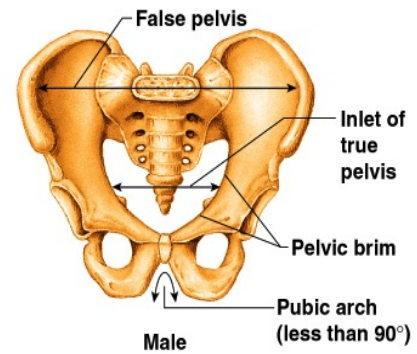
Bones of the Pelvic Girdle

- _____
- Composed of:
 - 2 _____ bones (hipbones)
 - _____
 - _____
- The total weight of the upper body rests on the pelvis
- _____
 - Reproductive organs
 - Urinary bladder
 - Part of the large intestine

- Coxal bone:
 - _____: largest part of coxal bone
 - _____: top of the ilium
 - _____: most inferior part of the coxal bone
 - _____: anterior part of coxal bone
 - _____: where the 2 _____

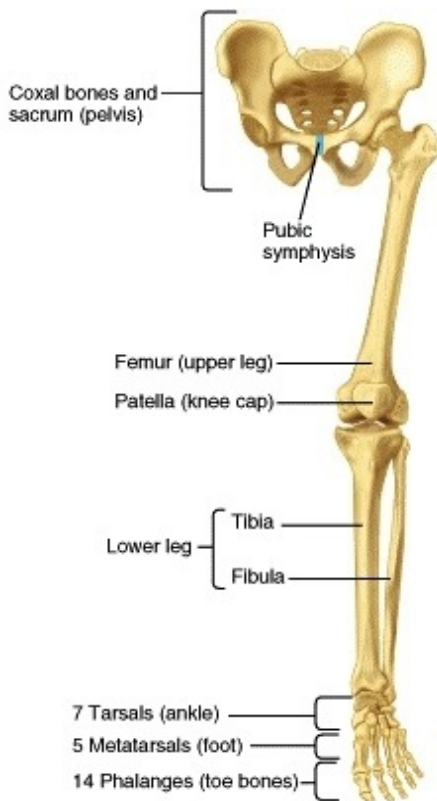
Gender Differences of the Pelvis

- Male:
 - Not as wide or broad
 - Pelvic cavity is _____
 - Bones are _____ & larger
 - Pubic arch is more _____
- Female:
 - _____ pelvis & broader hips
 - Pelvic cavity is shallow
 - Bones are _____
 - Pubic arch is _____

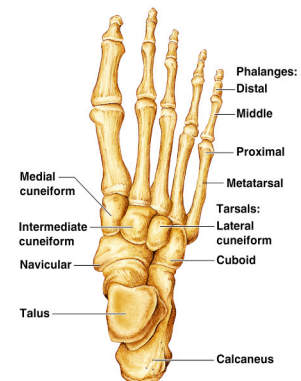


Bones of the Lower Limb

- Femur (thigh)
- Patella (kneecap)
- Tibia & Fibula (leg)
- Tarsals, metatarsals, phalanges (foot)



- _____
- _____
- Strongest and longest bone in the body
- _____
- Triangular bone that protects the knee joint
- _____
- _____
- _____ (towards the middle) to the fibula
- Thicker – bears weight of femur
- _____
- _____ (away from midline) to the tibia
- Stabilize ankle
- _____
- Ankle
- Supports weight of body
- _____
- Sole or instep
- _____
- Toes



Learning Goals:

1. Explain how the human skeleton is divided.
2. Summarize the parts of the Axial Skeleton.
3. Summarize the parts of the Appendicular Skeleton.
4. Describe the function of the skull and vertebrae. What is different about the fetal skull?

