NOTES: Human Skeletal System Part 2

| Hu | man Skeleton | | 200 |
|------------------|--|--|--|
| \triangleright | | in the adult human bo | dy 🦷 🛒 |
| | Divided into 2 parts: | | ALCOHOL: ALCOHOL: |
| | | Skull | (表) |
| | 0 | √ Vertebral column | The state of the s |
| | | Rib cage | |
| | | sags | A CASTON IN THE PARTY OF THE PA |
| | | Bones | s of arms |
| | 0 | and le | egs |
| | | Bones | s of shoulder |
| | | Pelvis | 17 17 18 18 |
| | e Axial Skeleton | | (II) (II) (\(\frac{1}{4}\) \(\frac{1}{4}\) |
| | Divided into three parts | | |
| | 0 | | |
| | 0 | (bony thorax) | 20 MB |
| | 0 | (bony morax) | |
| Coronal suture | | Frontal bone | The Skull |
| Parietal bone – | | | Two sets of bones |
| Temporal bone | | | 0 |
| | | | 0 |
| | | | > Skull bones are |
| Occipital bone | | | Only the mandible is attached by a freely mayable is int |
| | Garage Control of the | Maxilla | movable joint |
| | | Muximu | Bones of the Cranium (Skull) |
| | | Comment of the commen | > |
| | | Mandible (body) | Bones are attached by immovable joints |
| | | | called sutures |
| | | ••• | Made up of 8 flat bones |
| | | Maxilla | o 1bone |
| | | | o 2 bones |
| | Temporal bone | | o 1bone |
| | | | o 2bones |
| | | | o 1 sphenoid bone |
| | Temporal bone | | 1 ethmoind bone– |
| | Parietal bone | Foramen magnum | opening in the occipital bone |
| | Inferior View of Skull | | Area where spinal cord joins the brain |
| | - micror view of Ortali | | o Thea where spinal cora joins are ofain |
| TL | e Fetal Skull | | |
| 1 n | | _ fibrous m | embranes connecting the cranial bones |
| | Allow the brain to gr | – Horous III | chioranes connecting the cranial bolics |
| | O Allow the brain to gr | | after birth |
| | | WILLIIII | unter on the |

Facial Bones 2 bones that form the temporal bone ethmoid bone Only movable bone of the skull o Contains tooth sockets for 16 teeth o Forms bridge of the nose Zygomatic bone o 2 cheek bones **Anterior** 1st cervical — vertebra (atlas) 2nd cervical vertebra (axis) Cervical curvature The Vertebral Column Vertebrae discs 1st thoracic (pads of fibrocartilage) Transverse process Spinous process > The spine has Thoracic curvature (convex) (12 vertebrae) T₁ - T₁₂ Intervertebral disc Each vertebrae is given a name according to its location Intervertebral foramen \circ C = Cervical (C1-C7) o T = Thoracic (T1-T12 1st Lumbar vertebra Lumbar curvature \circ L = Lumbar (L1-L5) (concave) (5 vertebrae) L₁ – L₅ Function: (convex) (5 fused vertebrae) Coccyx (4 fused vertebrae) The Rib Cage (Bony Thorax) Made-up of three parts: -12 ribs connected to the vertebrae 1) Ribs that ___ to the ____ Ribs that by a common Ribs that _____ the ____ 0 2) Flat, blade-shaped bone Sternum Composed of 3 bones: manubrium, body, Xiphoid Xiphoid process and smallest portion of False • Attachment site for diaphragm

Costal cartilage

(11, 12)

(a)

3)

12 thoracic vertebrae

The Appendicular Skeleton

| | (appendages) |
|---|--------------|
| 1 | |



The Pectoral (Shoulder) Girdle

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

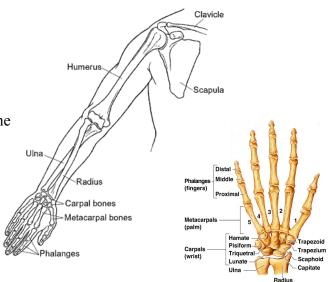
Bones of the Upper Limb

- ➤ 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
 - o ______ wris
 - o _____ palm fingers
- Coxal bone (or hip bone)

 Ilium

 Racrum

 Pubic symphysis



Bones of the Pelvic Girdle

- Composed of:

 o 2 ______ bones (hipbones)
- > The total weight of the upper body rests on the pelvis
- Reproductive organs
 - Urinary bladder
 - o Part of the large intestine

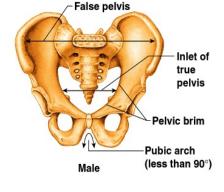
| \sim | L'OVOL | bone: |
|--------|---------|--------|
| _ | v anxan | 110111 |
| | | |

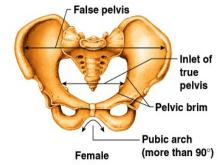
- o _____: largest part of coxal bone
 - _____: top of the ilium
- : most inferior part of the coxal bone
- o _____: anterior part of coxal bone
 - _____: where the 2 _____

Gender Differences of the Pelvis

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

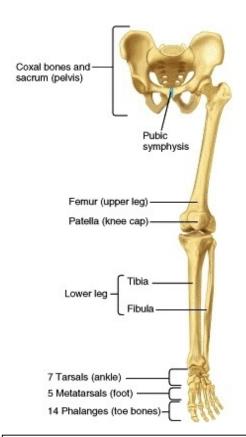
 - Bones are _____Pubic arch is _____





Bones of the Lower Limb

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



| | | _ |
|---|--------------------------|---|
| 0 | Strongest and longest be | one in the body |
| | Triangular bone that pro | _ |
| | | _ |
| 0 | (to | wards the middle) to the fibula |
| 0 | Thicker – bears weight | |
| | | |
| 0 | | (away from midline) to the |
| 0 | tibia Stabilize ankle | Phalanges: —Distal |
| 0 | Ankle | Middle |
| 0 | Suports weight of body | Medial Metatarsal Cuneiform |
| 0 | Sole or instep | Intermediate Lateral cuneiform Navicular Cuboid |
| 0 | Toes | Talus——— |
| | | Calcaneus |

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?