



جامعة الرّفعت

PHYSIOLOGY

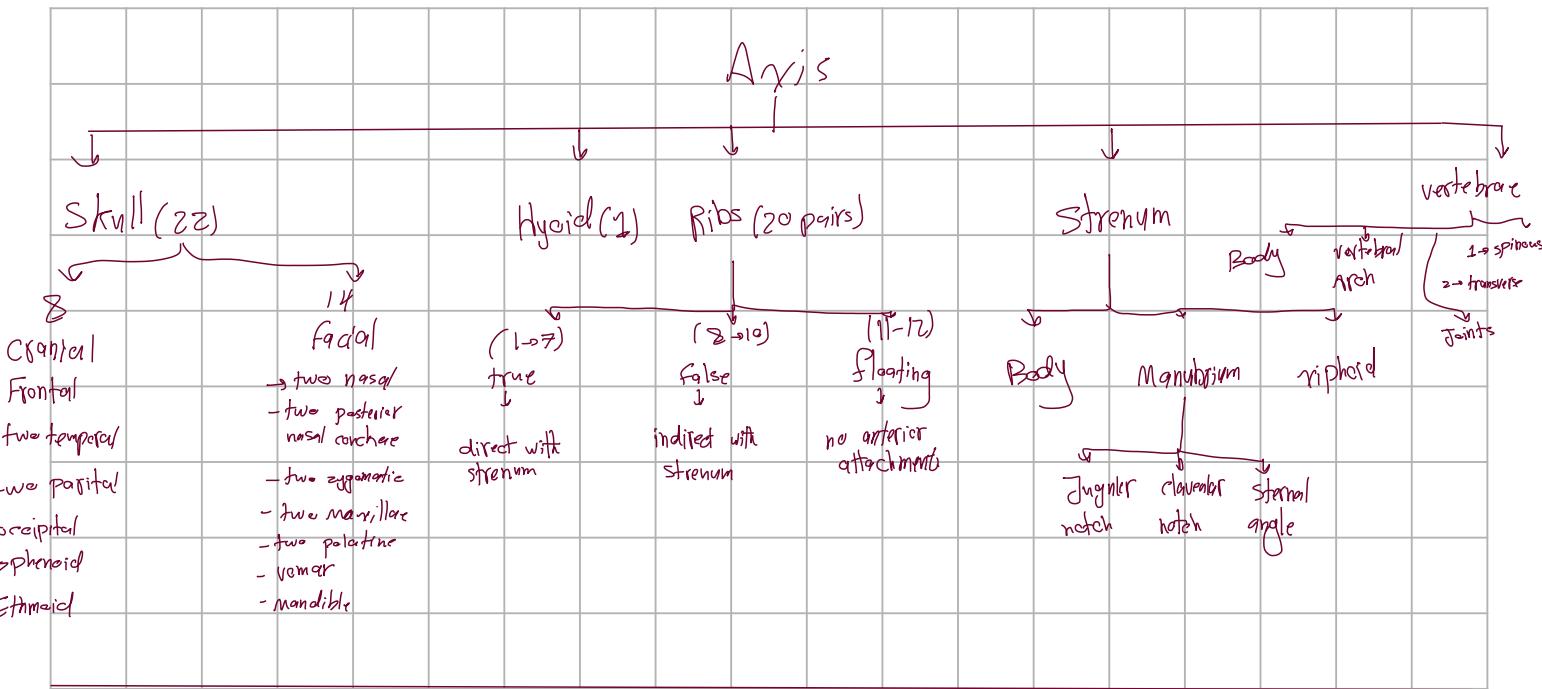
MORPHINE ACADEMY

السلام عليكم ورحمة الله وبركاته

يا أهل الخير ، هاي مجموعة من المعلومات البشعة الي انتوا بتعرفوها ودارسينها،بس استثقلتها كمعلومات وحسيتها دققة،لذلك
كتبتهم بهالسلайдات ونسأله الثبات واعمل زيهم على الباقي

بالتوفيق ان شاء الله

+ لستونه + تنه لا أخرين



* Concentric circles (rings) of Bone-Matrix in compact bone are lamellae

* Osteocytes are located in Lacunae, the Lacunae attach with each other by canaliculi; all canaliculi in unit called osteon.

* Bone growth occurs at site of Epiphyseal plate [made of Hyaline cartilage], which is the epiphyseal plate of a long bone located between the diaphysis and the epiphysis.

* The perceptible protrusion on the back of the head is the external occipital protuberance.

* Ethmoid bone has a transverse (cribriform) plate that forms the roof of the nasal cavity.

* The hard palate is formed by the Maxilla and Palatine

* Superior nuchal line is border between head and neck.

- * The nasal septum is formed by vomer bone and the preapical plate of the Ethmoid.
- * The nasal conchae with all its parts form the lateral wall.
- * Lacrimal bone forms part of the medial wall of the orbit, where Ethmoid bone is located.
- * The sphenoid bone contains the sella turcica, within which is the hypophyseal fossa.
- * The facial paranasal sinuses is one, the cranial paranasal sinuses are three, and the main(total) paranasal sinuses are four.
- * Paranasal sinuses are found in Frontal, Ethmoid, Sphenoid and Maxillary bones
- * The Fontanelles, Eventually, are replaced with bone to become sutures
- * The first cervical vertebra (C1) called Atlas, the second cervical vertebra (C2) called Axis that has dens.
- * The Intervertebral Discs formed of Fibrocartilage.
- * The parts of Manubrium are: 1- sternal Angle, 2- clavicular notch, 3- Jugular notch.
- * Sternal angle attaches with rib no. 2, The body attaches with rib no. (3-10), the xiphoid is not attach with any rib.

* Each rib is attached with vertebral column, but not all attach with sternum.

* Manubrium attaches with rib no. 1

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- 1 → B) 206
2 → c) Axial
3 → c) Osteoclast
4 → B) Movement
5 → B) Lacunae
6 → D) Osteoclast
7 → c) Periosteum
8 → c) collagen
9 → B) tooth discoloration
10 → c) compact.
11 → A) osteons.
12 → c) Diaphysis
13 → c) carpal
14 → B) Epiphyseal plate
15 → c) sesamoid bones
16 → B) Medullary cavity.
17 → c) 22
18 → c) sphenoid
19 → c) Mandible
20 → c) sagittal suture.
21 → c) Foramen magnum
22 → B) Unossified tissue
23 → B) Hyoid
24 → c) 5
25 → B) Atlas
26 → A) Intervertebral discs.
27 → c) xiphoid.
28 → A) pairs (1-7)
29 → B) no anterior attachment
30 → D) sacrum.

1. How many bones does the adult human skeleton typically consist of? 

- A) 106
- B) 206
- C) 306
- D) 212

2. Which division of the skeleton is primarily responsible for the protection of vital organs? 

- A) Appendicular skeleton
- B) Endoskeleton
- C) Axial skeleton
- D) Peripheral skeleton

3. Which bone cell is responsible for the synthesis and calcification of the bone matrix? 

- A) Osteocyte
- B) Osteoclast
- C) Osteoblast
- D) Chondrocyte

4. What is the primary function of the appendicular skeleton? 

- A) Protection of the brain
- B) Movement
- C) Support of the longitudinal axis
- D) Production of hormones

5. Where are osteocytes located? 

- A) Periosteum
- B) Lacunae
- C) Medullary cavity
- D) Haversian canal

6. Which cell type is a form of macrophage responsible for bone resorption (destruction)? 

- A) Osteoblast
- B) Osteoprogenitor
- C) Osteocyte
- D) Osteoclast

7. What is the name of the thick connective tissue layer that covers the outside of a bone? 

- A) Endosteum
- B) Epiphysis
- C) Periosteum
- D) Diaphysis

8. The bone matrix is primarily composed of which fiber type? 

- A) Elastin
- B) Reticular
- C) Collagen
- D) Keratin

9. Why should Tetracycline be avoided in pregnant women and young children? 

- A) It causes bone fractures.
- B) It leads to permanent tooth discoloration.
- C) It inhibits growth hormone.
- D) It prevents the formation of red blood cells.

1. Which type of bone appears as a dense area with generally no cavities? 

- A) Spongy bone
- B) Woven bone
- C) Compact bone
- D) Cancellous bone

2. In secondary (lamellar) bone, what are the concentric circles of matrix called? 

- A) Osteons
- B) Canaliculi
- C) Trabeculae
- D) Diaphyses

3. The shaft or middle tube-like part of a long bone is known as the: 

- A) Epiphysis
- B) Periosteum
- C) Diaphysis
- D) Metaphysis

4. Which of the following is classified as a "Short Bone"? 

- A) Femur
- B) Sternum
- C) Carpal bones
- D) Vertebrae

5. Where does the increase in the length of a bone occur? 

- A) Periosteum
- B) Epiphyseal plate
- C) Medullary cavity
- D) Endosteum

6. Which type of bone is found specifically within tendons to protect them from wear? 

- A) Irregular bones
- B) Flat bones
- C) Sesamoid bones
- D) Sutural bones

7. The central cavity within the diaphysis of a long bone is called the: 

- A) Lacuna
- B) Medullary cavity
- C) Foramen magnum
- D) Nutrient foramen

The Skull

1. How many bones make up the human skull? 

- A) 14
- B) 8
- C) 22
- D) 26

2. Which bone is known as the "Keystone" because it attaches to all other cranial bones? 

- A) Frontal bone
- B) Occipital bone
- C) Sphenoid bone
- D) Ethmoid bone

3. What is the only movable bone in the skull?  +1

- A) Maxilla
- B) Zygomatic bone
- C) Mandible
- D) Temporal bone

4. Which suture is located between the two parietal bones? 

- A) Coronal suture
- B) Lambdoid suture
- C) Sagittal suture
- D) Squamous suture

5. What is the name of the largest foramen in the skull, located in the occipital bone? 

- A) Foramen ovale
- B) Mental foramen
- C) Foramen magnum
- D) Optic canal

6. What are "fontanelles"? 

- A) Small bones in the ear
- B) Unossified tissue areas in a fetal skull
- C) Sinus cavities in the face
- D) Growth plates in the ribs

1. Which bone is unique because it does not articulate with any other bone? 

- A) Patella
- B) Hyoid bone
- C) Scapula
- D) Clavicle

2. How many lumbar vertebrae are there in the adult human spine? 

- A) 7
- B) 12
- C) 5
- D) 4

3. The first cervical vertebra (C1) is also known as the: 

- A) Axis
- B) Atlas
- C) Dens
- D) Prominence

4. Which structure is found between adjacent vertebrae to absorb shock? 

- A) Intervertebral discs
- B) Suture joints
- C) Epiphyseal plates
- D) Synovial fluid

5. The sternum consists of three parts: the manubrium, the body, and the: 

- A) Costal cartilage
- B) Sternal angle
- C) Xiphoid process
- D) Dens

6. Which ribs are considered "true ribs" because they attach directly to the sternum? 

- A) Pairs 1–7
- B) Pairs 8–10
- C) Pairs 11–12
- D) All 12 pairs

7. Why are rib pairs 11 and 12 called "floating ribs"? 

- A) They are made entirely of cartilage.
- B) They have no anterior attachment.
- C) They are not attached to the vertebrae.
- D) They are only present in children.

8. Which region of the vertebral column has vertebrae that fuse to form a triangular bone in adults? 

- A) Cervical
- B) Thoracic
- C) Lumbar
- D) Sacrum