Unit 2 Study Guide

Details matter a LOT in anatomy. You can't make up things or "wing it "in anatomy. Also, this is just a guide not an exhaustive list. You may need to connect the dots between bones and muscles.

Use a whiteboard and dry erase markers to write out things OVER and OVER and OVER. We recommend making your own flashcards for the muscles. The act of writing the flashcards will help you learn the material better than using someone else's materials.

If you are in lab, the structures to know lists can be used for the lecture as well. Just focus more on the functions of those structures.

Module 4

- What are the functions of the skeletal system?
  Support, Protection, Movement, Hemopoiesis, Energy & Mineral Reserves

- What are the bones of the appendicular skeleton? Axial skeleton?
  Appendicular: pectoral girdle, upper limb, pelvic girdle, lower limbs
  Axial: skull, hyoid bone, vertebral column, thoracic cage (sternum and ribs)

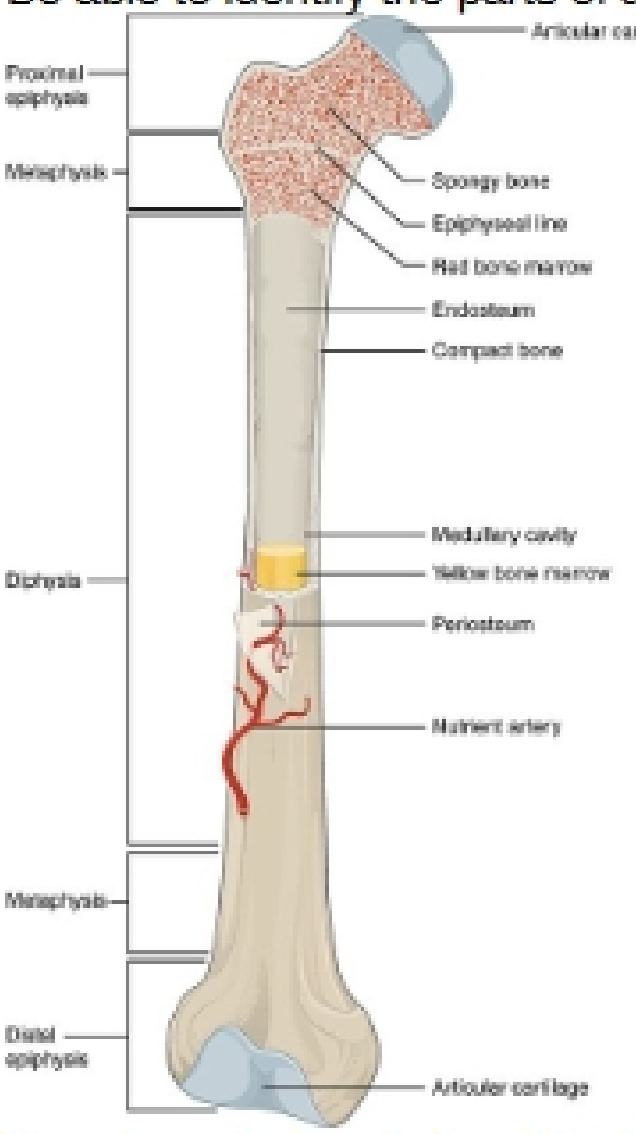
- What are the three types of cartilage? Where can you find them?
  Hyaline: ends of long bones, costal cartilage, respiratory structures, fetal skeleton
  Elastic: pinna (outer ear), epiglottis
  Fibrocartilage: intervertebral disks, knee joint, pubic symphysis

- What is spongy bone? What is compact bone?
  Spongy Bone (trabecular bone): inside bones, better at shock absorption
  Compact Bone (cortical bone): smooth, dense, external portion of bones, strong, rigid

- What are osteoclasts, osteocytes, and osteoblasts?
  Osteoclast: break down (consume) bone
  Osteocyte: mature bone cells
  Osteoblasts: build new bone

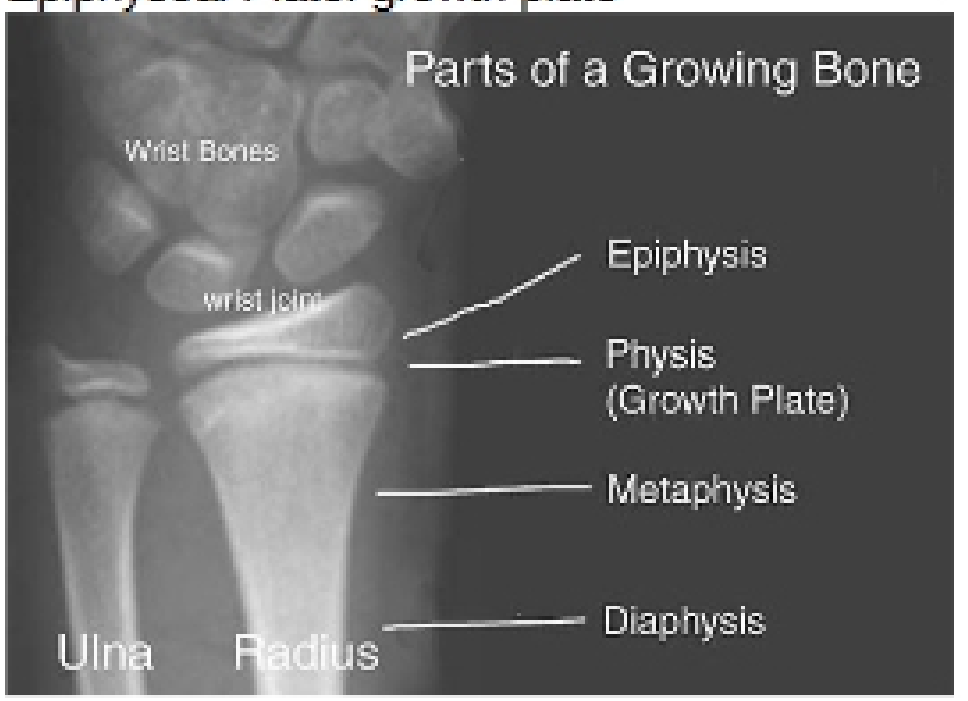
- Be able to give examples of long bones, short bones, irregular bones, and flat bones.
  Long Bone: humerus
  Short Bone: talus
  Irregular Bone: vertebra
  Flat Bone: sternum

- Be able to identify the parts of a long bone.



- What is endochondral ossification? What is intramembranous ossification? Which bones form via endochondral ossification? Intramembranous ossification?
  Endochondral Ossification: skeleton begins as hyaline cartilage model, bone replaces cartilage, epiphyseal (growth) plates ossify eventually, most of the bones of the skeleton form this way
  Intramembranous Ossification: bone grows within a membrane, forms many flat bones (bones of the skull) as well as maxillae, zygomatic, mandible, and center of the clavicle

- What is the epiphyseal plate? Be able to identify it
  Epiphyseal Plate: growth plate



- What is the pectoral girdle?
  Pectoral Girdle: includes left and right scapula and left and right clavicle

- What are the major parts/processes of the scapula?
  Scapular spine, glenoid cavity, supraspinous and infraspinous fossae, subscapular fossa, coracoid process, and acromion

- What bones are found in the upper limb?
  Arm, forearm, hand: carpal bones, metacarpals, phalanges

- What are the major parts of the humerus?
  Head of the humerus, greater tubercle, lesser tubercle, anatomical neck, deltoid tuberosity

- How many phalanges are in the hand? How many carpals?
  Phalanges: 14
  Carpals: 8

- What bones are in the pelvis? Where do they articulate?
  Pelvic girdle, ossa coxae (hip bone), sacrum, coccyx
  Articulate at the sacroiliac joint

- What are the major features of the femur? What bones are articulate with the femur?
  Head, neck, greater and lesser trochanters, lateral and medial condyles, and lateral and medial epicondyles
  Articulates with patella and tibia

- What features help you distinguish the tibia from the fibula?
  Tibia: larger and sturdier, located medially
  Fibula: thinner, located laterally, doesn't articulate with the femur at the knee and is only for stabilization at the ankle

- How many tarsals and phalanges are in the foot?
  Tarsals: 7
  Phalanges: 14

- What are the three types of joints? What are examples of each?
  Fibrous: skull sutures
  Cartilaginous: costochondral joints, epiphyseal plates, intervertebral joints, pubic symphysis
  Synovial: most joints

- What is synchondrosis? Symphysis?
  Synchondrosis: bones joined by hyaline cartilage
  Symphysis: fibrocartilage between articulating bones