

# Osteology

## Chapter One:

- What type of tissue is bone?
  - Connective tissue
- What is bone made of?
  - Calcium salts (Integrity) and collagen fibers (flexibility)
- What are the functions of bone?
  - Structure
  - Protection of vital organs (ex: skull & brain, ribs & heart/lungs)
  - Leverage (locomotion through tendons & ligaments)
  - Storage of minerals (only if there is a deficit)
- What are the two divisions of the skeleton and what do they contain?
  - Axial skeleton
    - Skull
    - Vertebral Column
    - Sternum
    - Ribs
  - Appendicular Skeleton
    - Thoracic Limb
    - Pelvic Limb
- What are the types of bones? Give examples?
  - Long: humerus, femur, ulna, radius
  - Short: human wrist or ankles
  - Flat: ribs and some bones in the skull
  - Irregular: Vertebral Column
  - Sesamoid: Patella
  - Pneumatic: found in birds
- What are the two types of bone?
  - Cancellous (Spongy)
  - Compact

- List the parts of a bone.
  - Medullary Cavity (bone marrow)
  - Epiphysis (ends of heads)
  - Diaphysis (shaft of the bone)
  - Metaphysis (connects Epiphysis and Diaphysis)
  - Epiphyseal cartilage (growth plate in between metaphysis and epiphysis)
  - Periosteum (outer surface of the bone)
  - Endosteum (interior of the bone)
  - Articular Cartilage (buffer/cushion)
  
- What are the types of bone cells and their functions ?
  - Osteocyte: mature bone cell
  - Osteoblast: builds bone
  - Osteoclast: collapses or breaks down bone
  - Osteoprogenitor cell: immature bone cell (precursor)