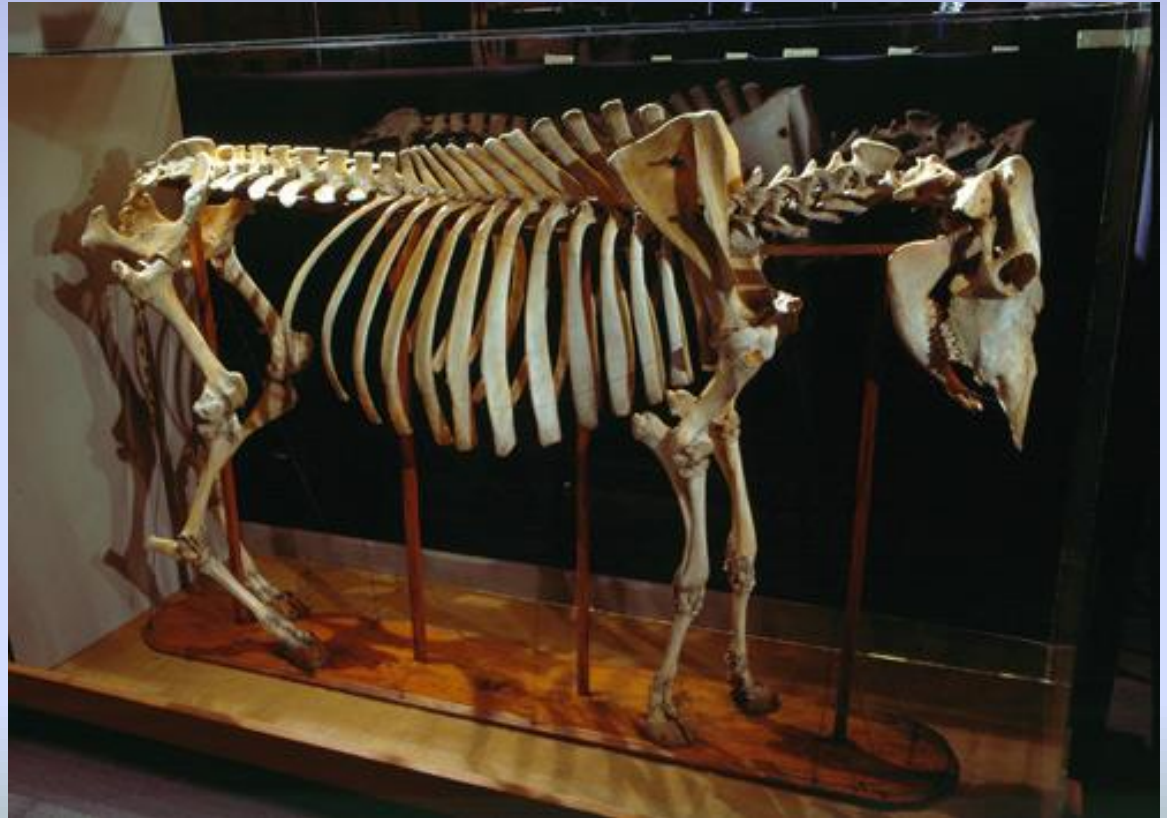


Unit 3, Lesson 3: Skeletal System

What is the function of bone?

- Bone helps with:
 - Movement
 - Support
 - Protection



What is bone made of?

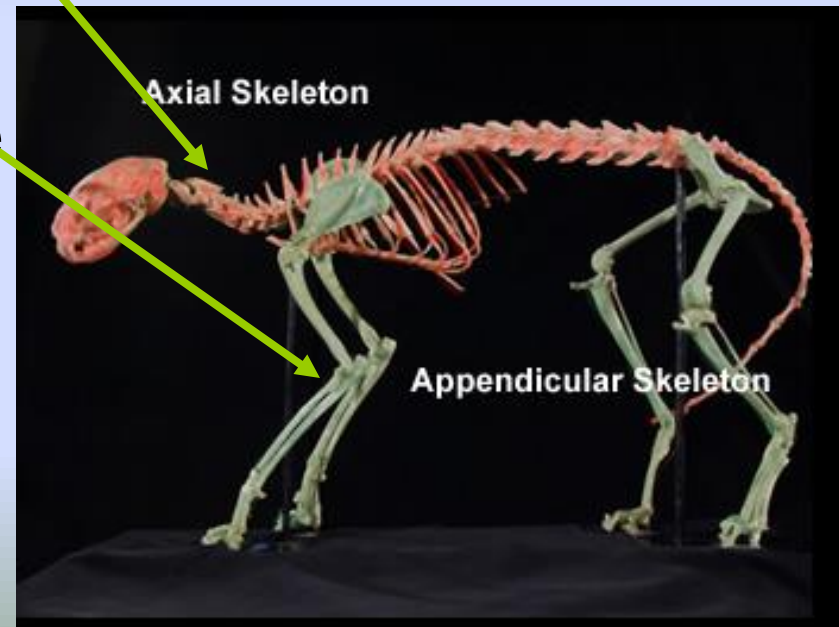
- Bone is comprised of:
 - 26% minerals (mostly calcium phosphate and calcium carbonate)
 - 50% is water
 - 4% is fat
 - 20% is protein
- Bone requires adequate amounts of vitamins and minerals in the ration.



Important Terms Related to the Skeleton

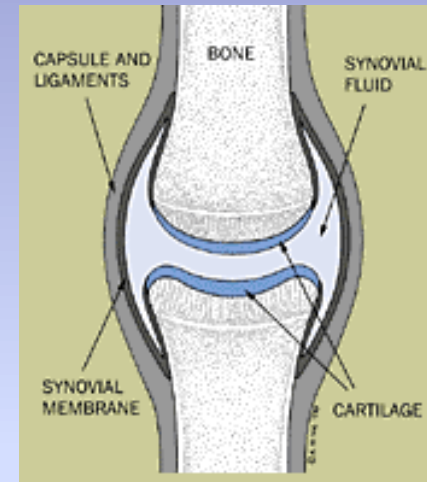
Skeletons can be divided into two sections, which include

- a. **Axial Skeleton**—These bones are on or close to the midline axis of the body and include the skull, vertebrae and ribs.
- b. **Appendicular skeleton**—These bones project from the body in the pectoral (front) and pelvic (hind) limbs, and are connected to the body through the bones of the girdles.

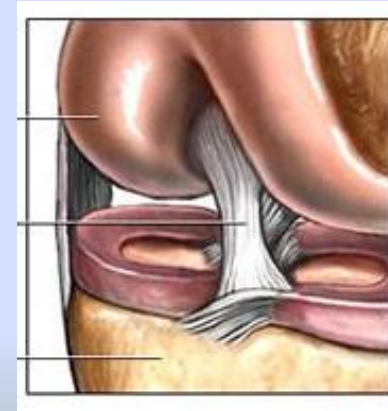


Other Important Terms, Con't.

c. Joints—points where two or more bones meet.



d. Ligament—Tough band of connective tissue connecting one bone to another.

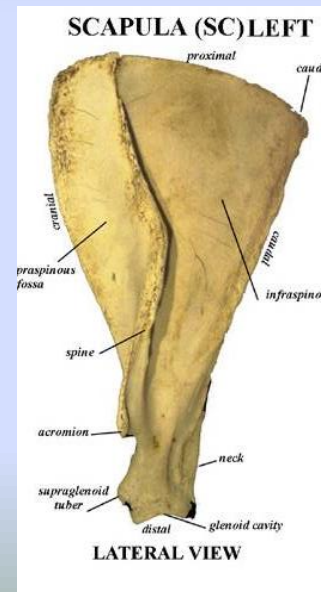
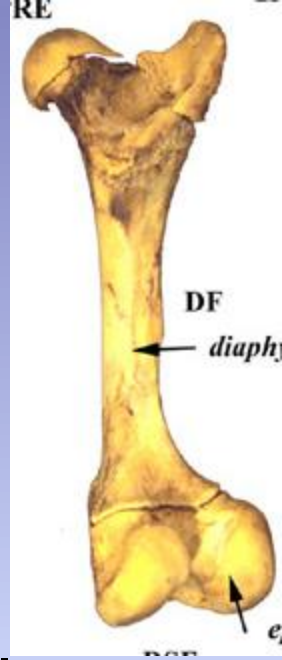


Other Important Terms, Con't.

- e. Tendon—Thick band of connective tissue that attaches muscle to bone.
- f. Compact Bone—layer of protective hard bone tissue surrounding every bone
- g. Spongy Bone—soft bone filled with many holes and spaces surrounded by hard bone.

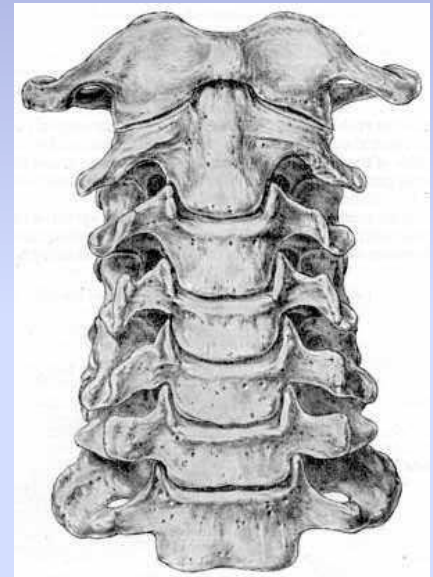
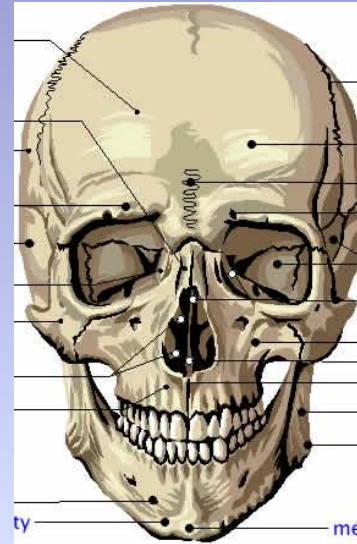
Types of bones in the animal body

- Long Bones--They serve as support columns. They assist the animal in body support, locomotion and eating. Example: Femur
- Short Bones--They are shaped like a cube and are located in complex joints, such as the knee and hock. They diffuse concussion and diminish friction. Example: Hock
- Flat Bones--They protect vital organs such as the brain, the heart, and the lungs. They are longer and wider than they are thick. Example: Scapula

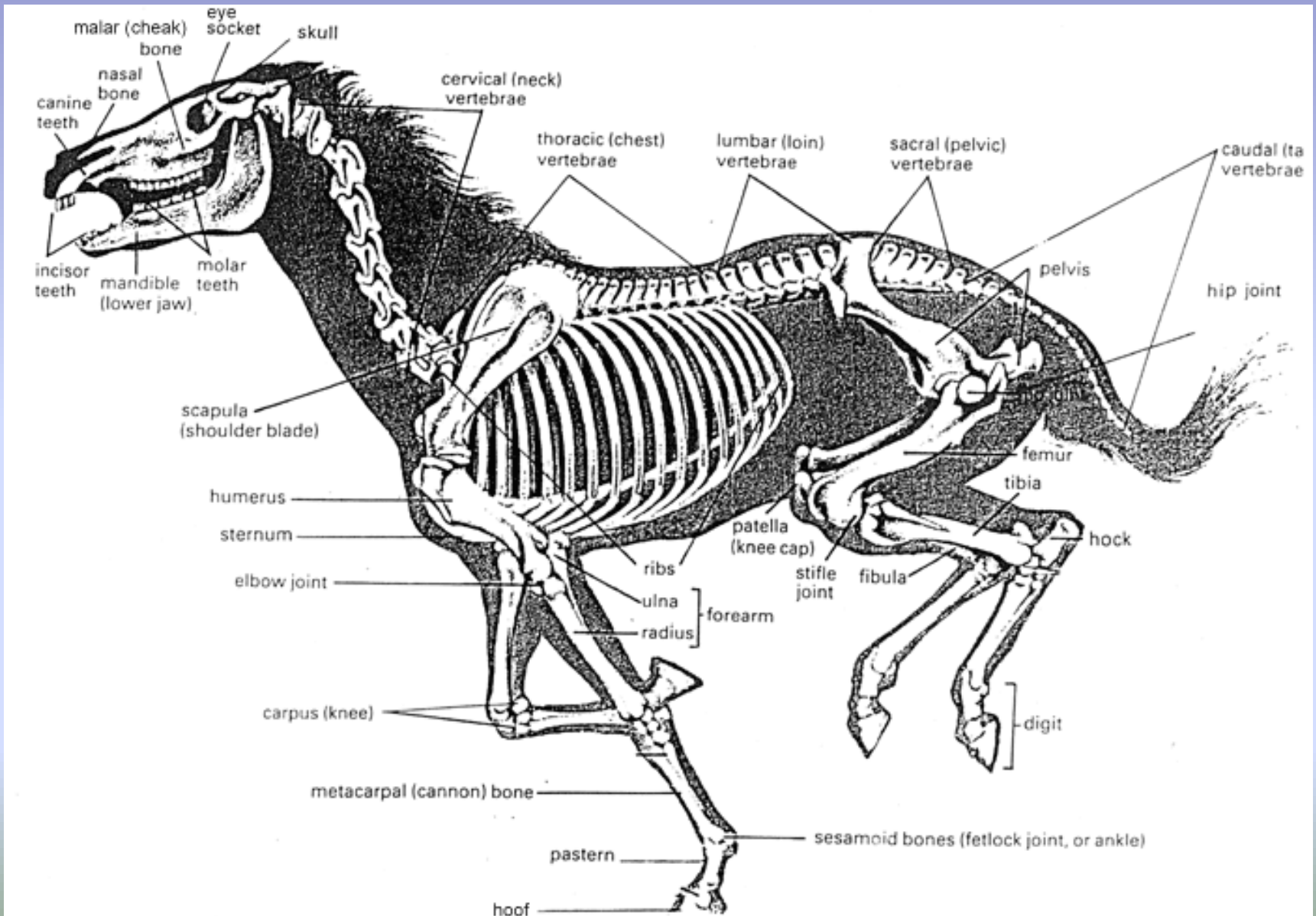


Types of bones in the animal body

- Pneumatic bones--they contain air spaces called sinuses that are in contact with the atmosphere. Example: Frontal face bones.
- Irregular Bones--important to the protection and support of the central nervous system and are points of some muscle attachment. Example: Vertebrae
- Sesamoid Bones--they are flat and round. They are located along the course of tendons. Example: Kneecap or patella



Horse Skeleton



Unlabeled Horse Skeleton

