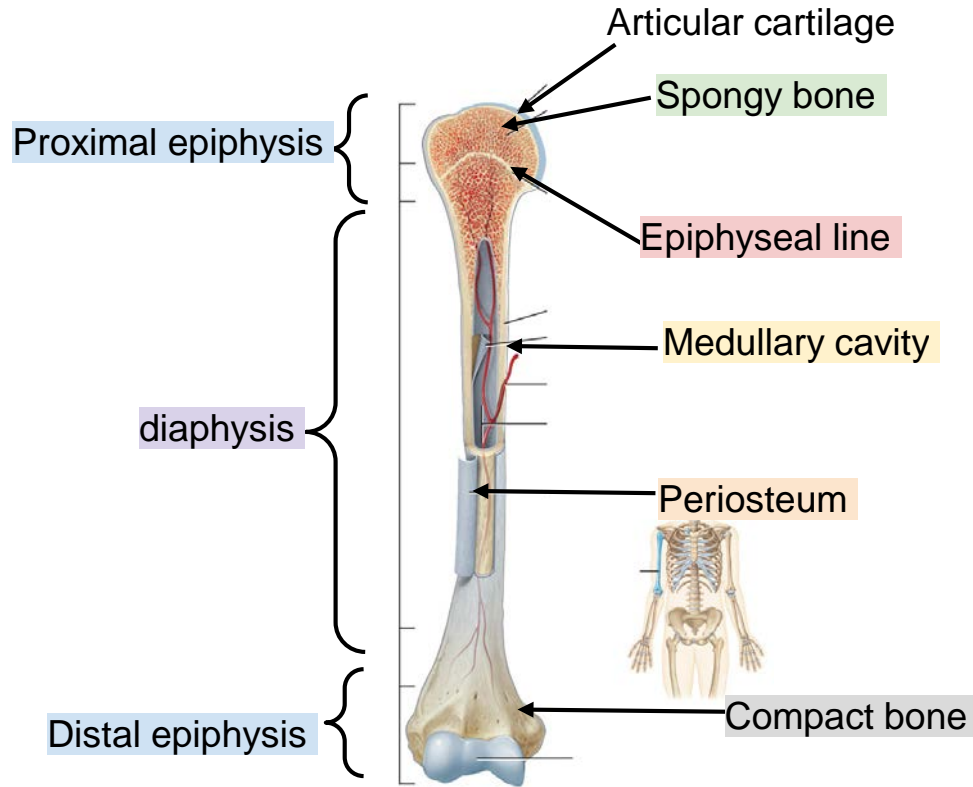


Identifying Structures of Skeletal Structures

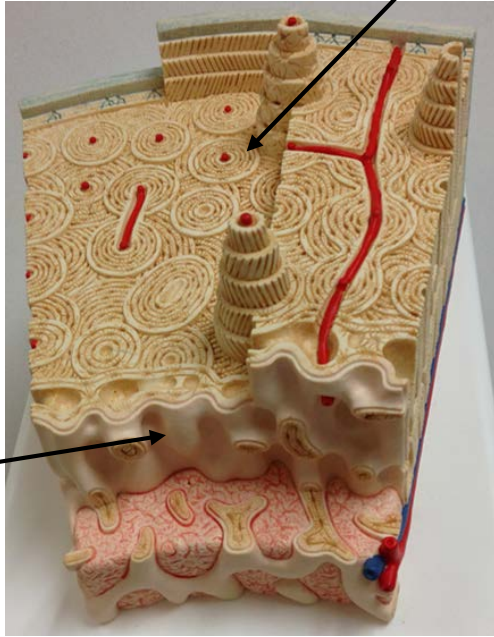
Krystal Ong

Identifying Long Bones



- **Proximal & distal epiphysis:** the heads/ends of long bones
- **Diaphysis:** the shaft of a long bone
- Articular cartilage: tissues that cover the ends of long bones to allow for joints to come together
- **Spongy bone:** osseous tissue type that is “sandwiched” between compact bone; found along diaphysis and thins out approaching epiphyses; structural + functional unit = trabeculae
- **Epiphyseal line/plate:** hyaline cartilage plate in the metaphysis at the ends of each long bone; separates epiphysis and diaphysis
- **Medullary (marrow) cavity:** hollow part of long bone that contains bone marrow; surrounded by internal layer of spongy bone
- **Periosteum:** membrane made of dense irregular CT that covers the outer surface of all bones
- **Compact bone:** osseous tissue type that forms the inner and outer parts of long bone

Osseous Tissue



osteon

Trabeculae

Canaliculi

Lacunae

osteon

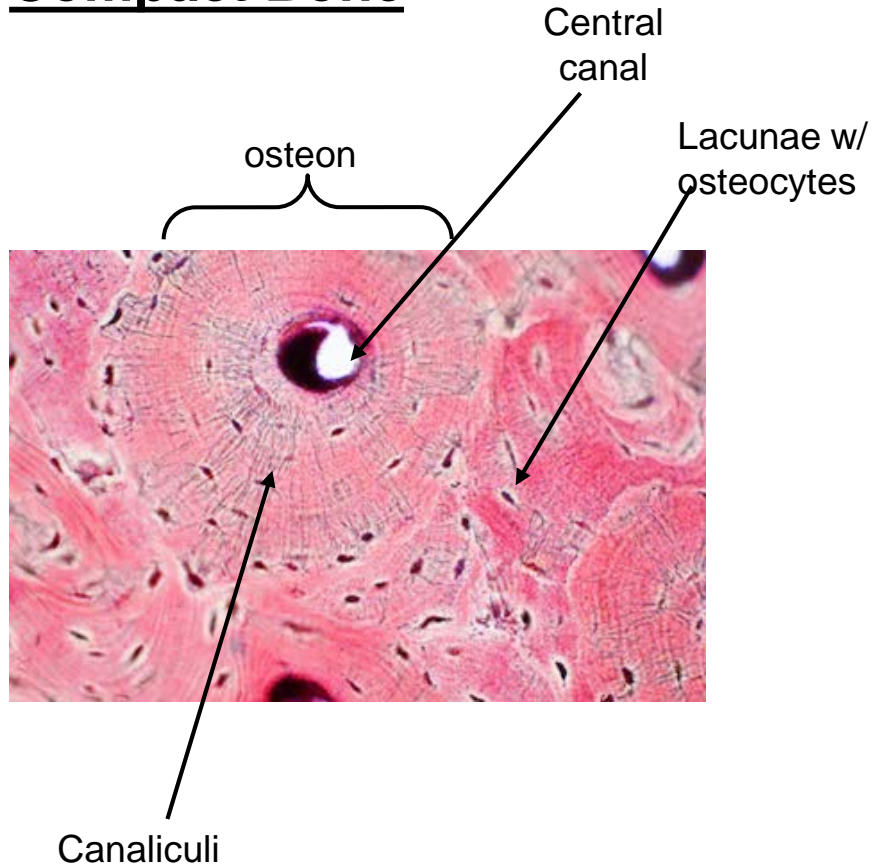
Central canal

Interstitial lamellae

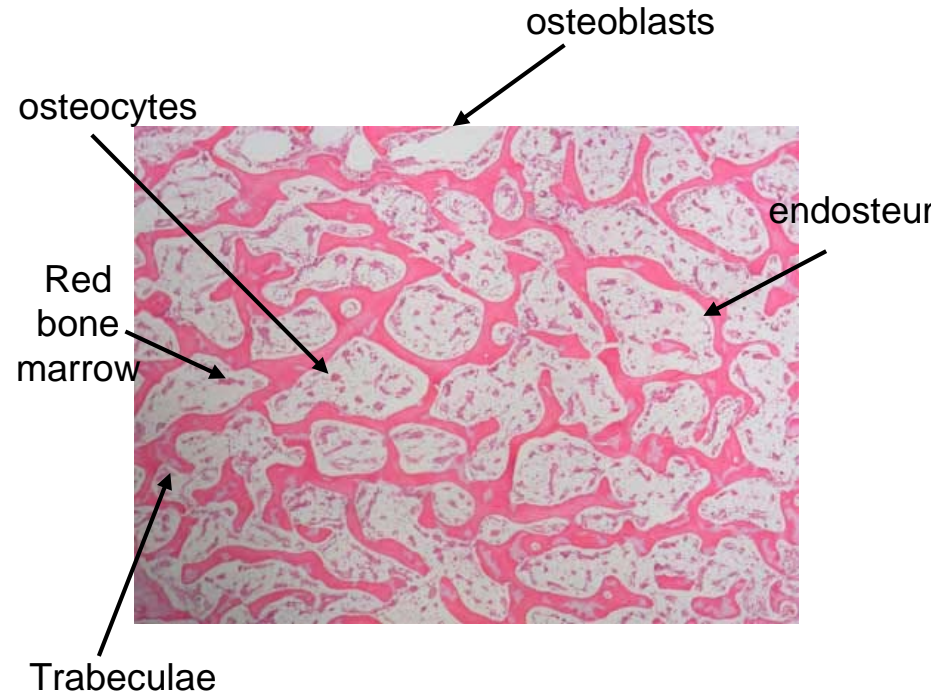
- **Osteon:** the structural and functional unit of compact bone
- **Interstitial lamellae:** fill in spaces b/t the osteons in compact bone
- **Central (haversian) canal:** where blood + lymph vessels and nerves travel through throughout compact bone

- **Lacunae:** small chambers than house osteocytes
- **Canaliculi:** channels that radiate through the matrix and link the lacunae together
- **Trabeculae:** structural and functional unit of spongy bone

Histology of Compact Bone



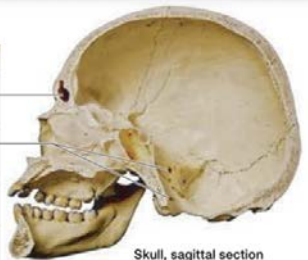
Histology of Spongy Bone




Common Bone Markings

Elevations and Projections	
Process:	Any projection or bump
Ramus:	An extension of a bone that forms an angle with the rest of the structure

Openings	
Sinus or antrum:	A chamber within a bone, normally filled with air
Meatus or canal:	A passageway for blood vessels and/or nerves
Fissure:	A deep furrow, cleft, or slit
Foramen:	A rounded passageway for blood vessels and/or nerves



Skull, sagittal section

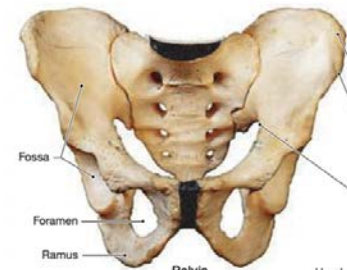


Skull, anterior view

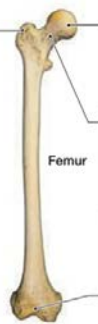
Processes formed where tendons or ligaments attach	
Trochanter:	A large, rough projection
Crest:	A prominent ridge
Spine:	A pointed process
Line:	A low ridge

Processes formed for joints (articulations) with adjacent bones	
Head:	The expanded articular end of an epiphysis, often separated from the shaft by a narrower neck
Neck:	A narrower connection between the epiphysis and diaphysis
Facet:	A small, flat articular surface
Condyle:	A smooth, rounded articular process
Trochlea:	A smooth, grooved articular process shaped like a pulley


Depressions	
Sulcus:	A narrow groove
Fossa:	A shallow depression



Pelvis



Femur

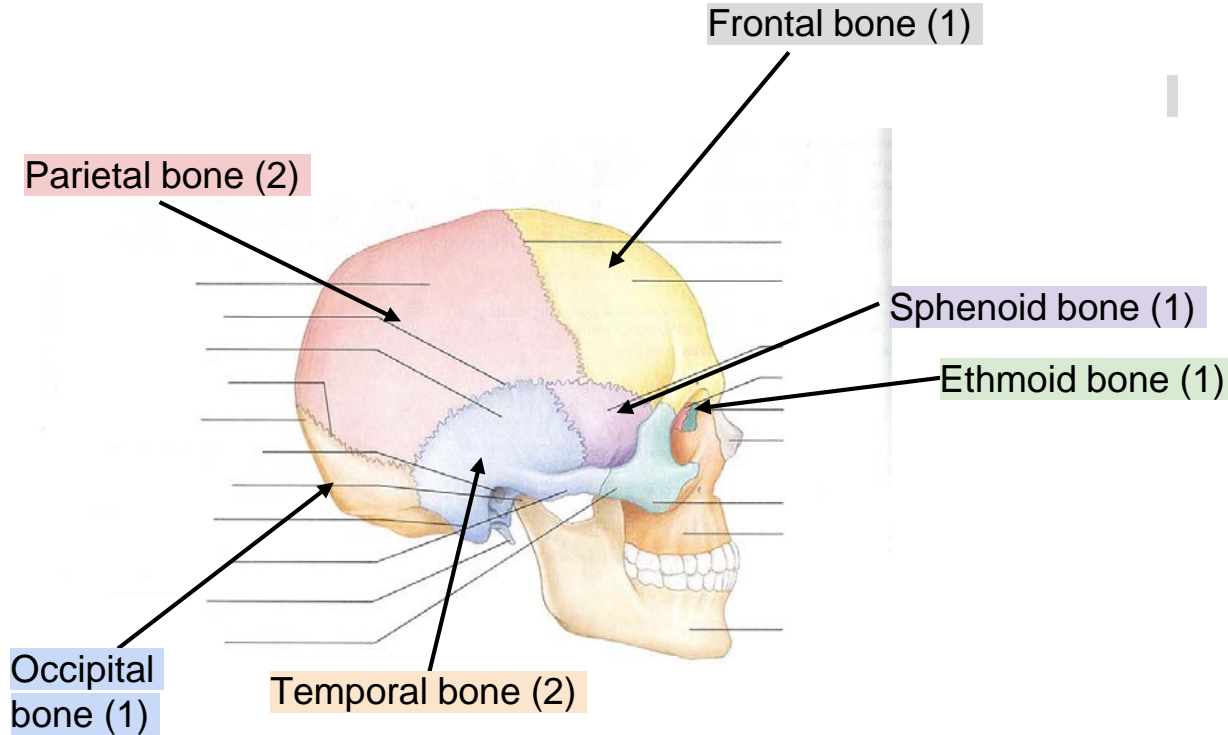


Humerus

Processes formed where tendons or ligaments attach	
Tubercle:	A small, rounded projection
Tuberosity:	A rough projection

Processes formed for joints (articulations) with adjacent bones	
Head:	The expanded articular end of an epiphysis, often separated from the shaft by a narrower neck
Neck:	A narrower connection between the epiphysis and diaphysis
Facet:	A small, flat articular surface
Condyle:	A smooth, rounded articular process
Trochlea:	A smooth, grooved articular process shaped like a pulley

8 Cranial Bones

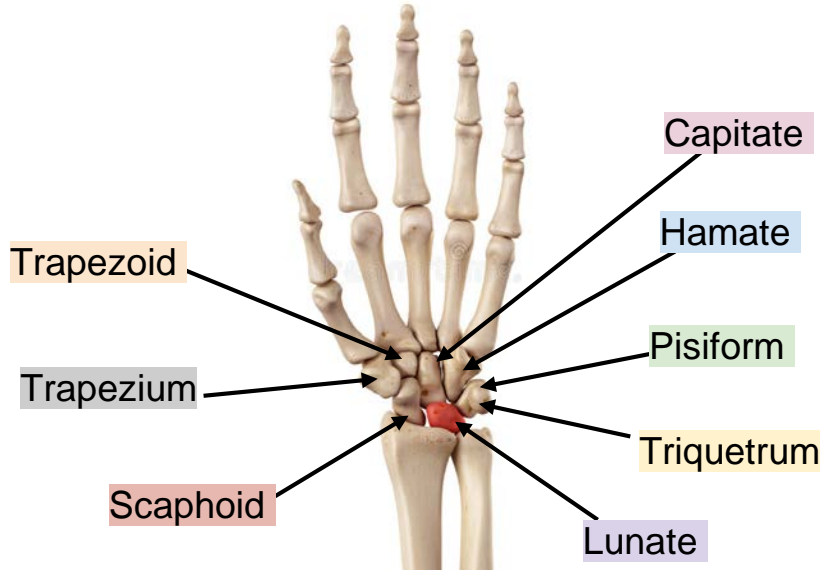


Mnemonic: “PEST OF 8”

- **Parietal bone (2):** pair of flat bones located at each side of the head
- **Ethmoid bone (1):** Irregular bone that is located posterior to sphenoid bone. Makes up part of nasal cavity.
- **Sphenoid bone (1):** irregular bone that sits directly inferiorly to the frontal bone
- **Temporal bone (2):** pair of irregular bones located under each of the parietal bones.
- **Occipital bone (1):** a flat bone located in the posterior region of the skull. It has an opening that allows your spinal cord to connect to your brain
- **Frontal bone (1):** flat bone that makes up your forehead

Carpal Bones

Mnemonic: “So Long To Pinky, Here Comes The Thumb”



Tarsal Bones

Mnemonic: “Tiger Cubs Need MILC”

