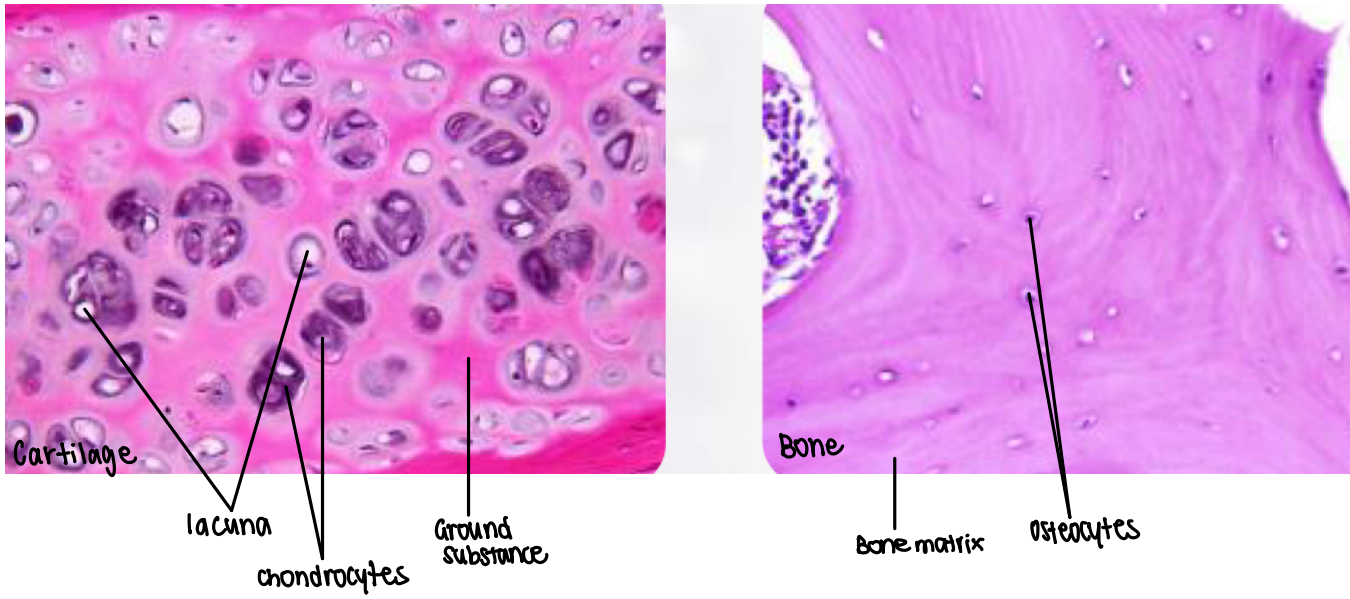
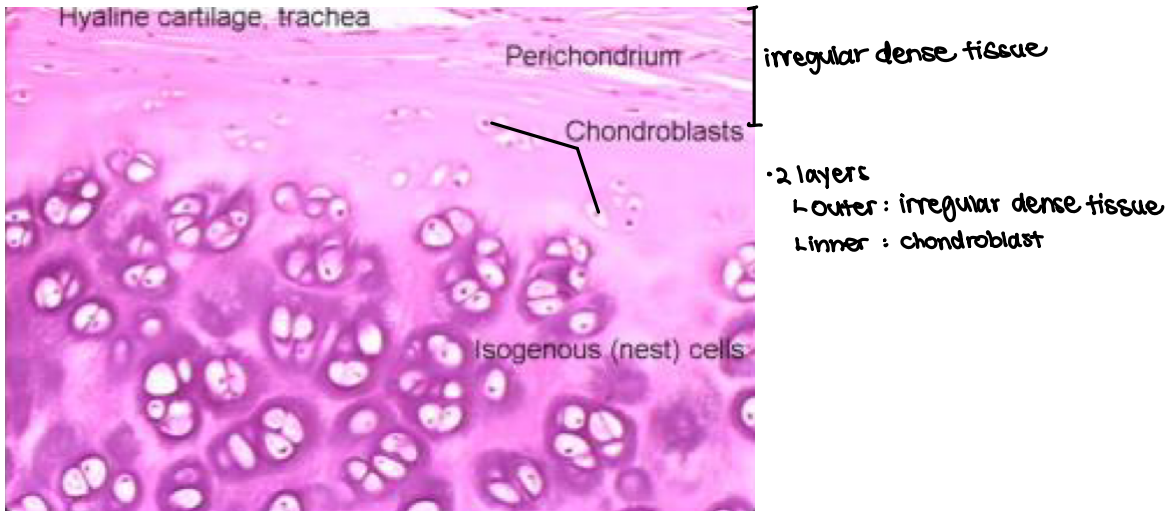


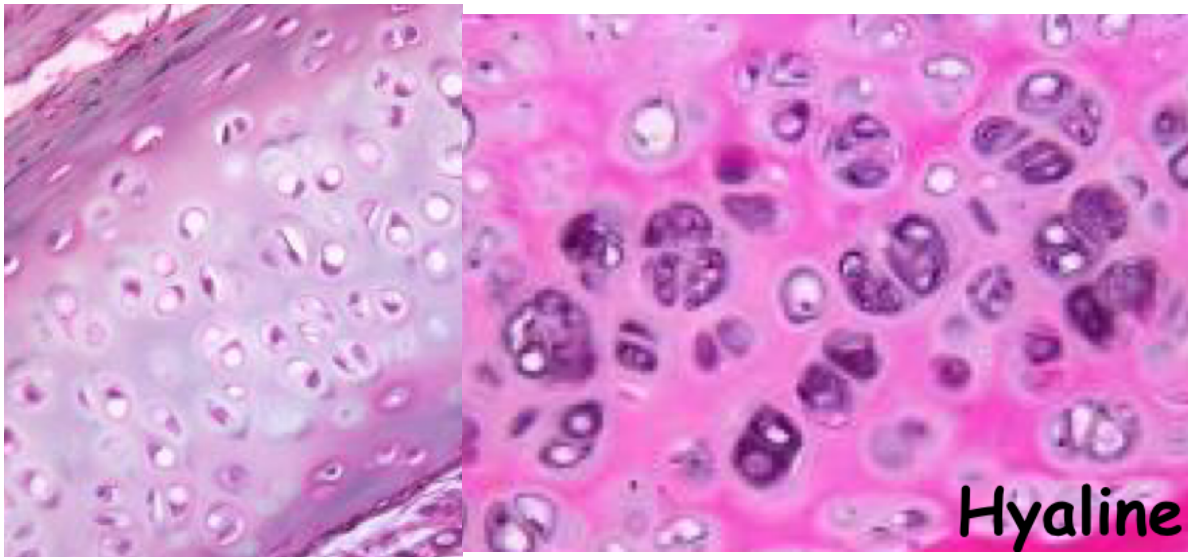
# Cartilage and Bone



## Perichondrium

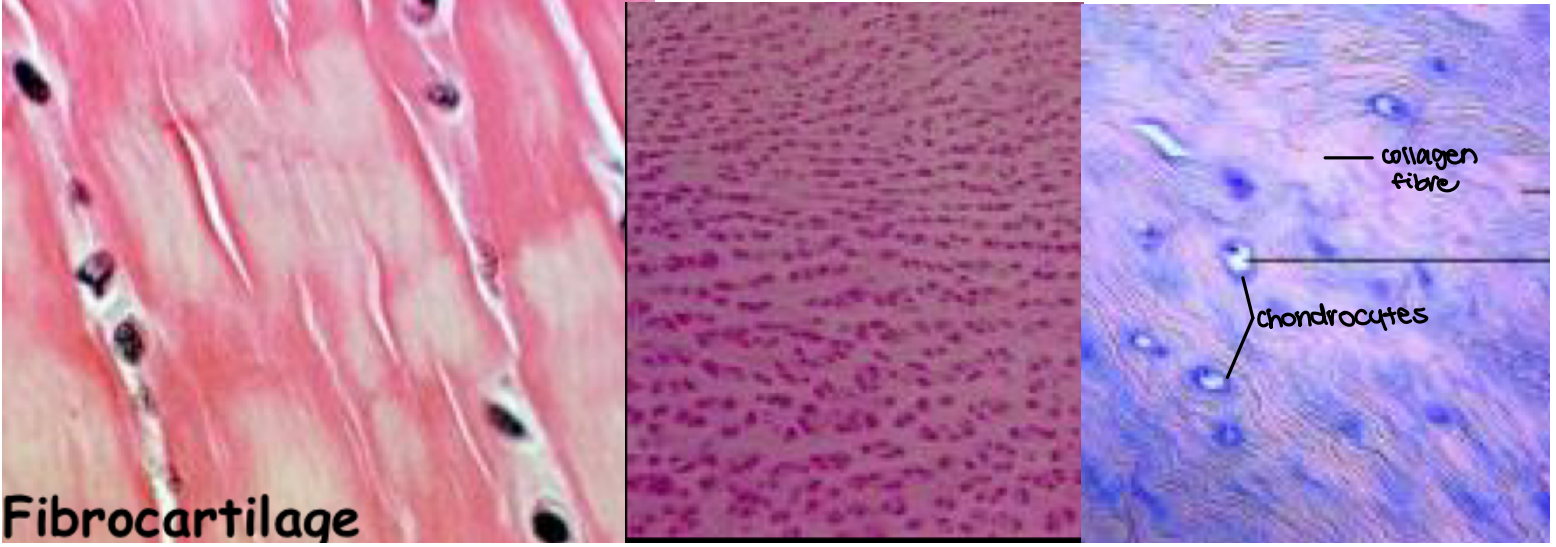


## Hyaline Cartilage



- Closely-packed collagen fibres
- Glassy, shiny look

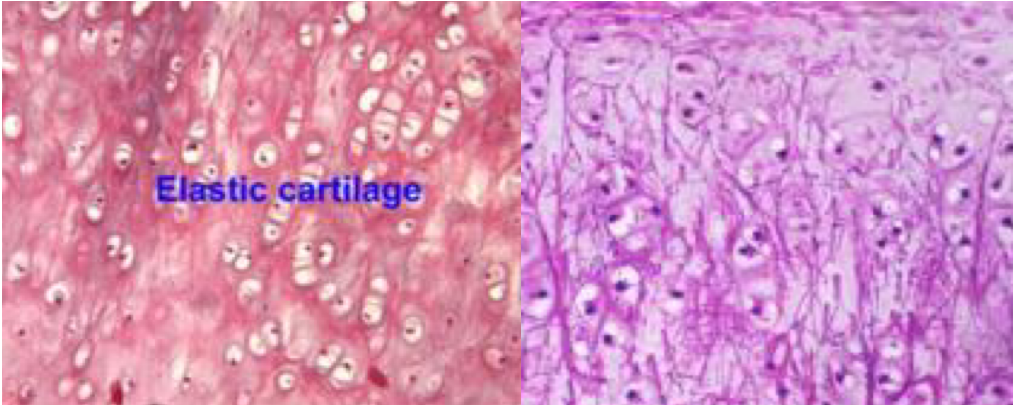
# Fibrocartilage



## Fibrocartilage

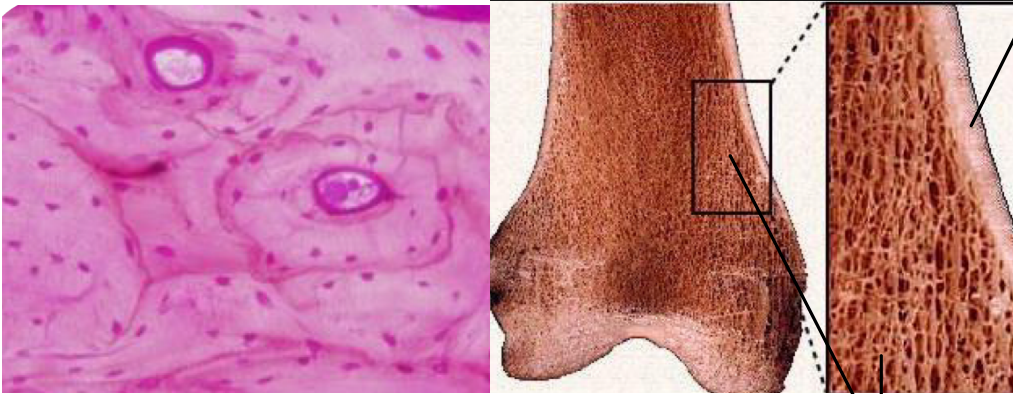
- chondrocytes aligned in rows between interwoven fibres

# Elastic Cartilage



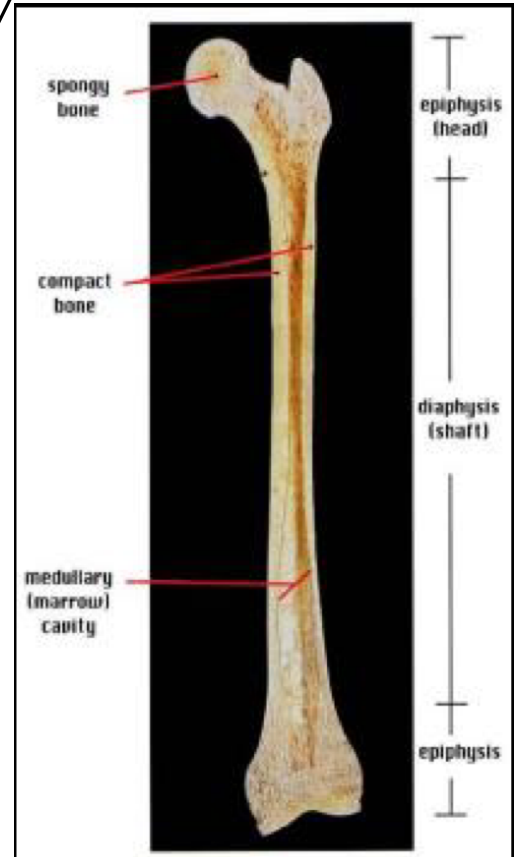
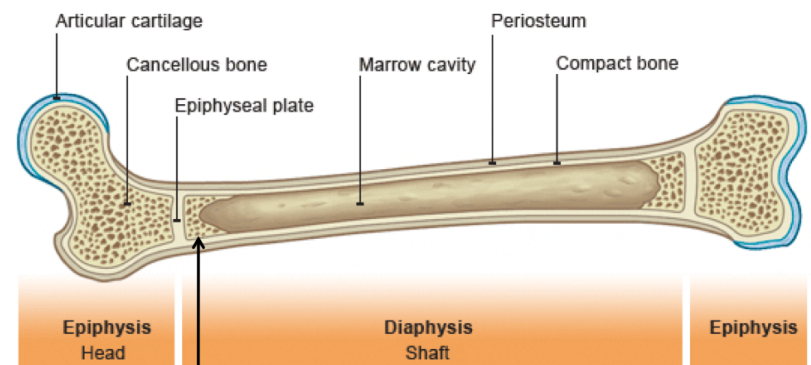
- collagen
- numerous branching elastic fibre in matrix

# Bone

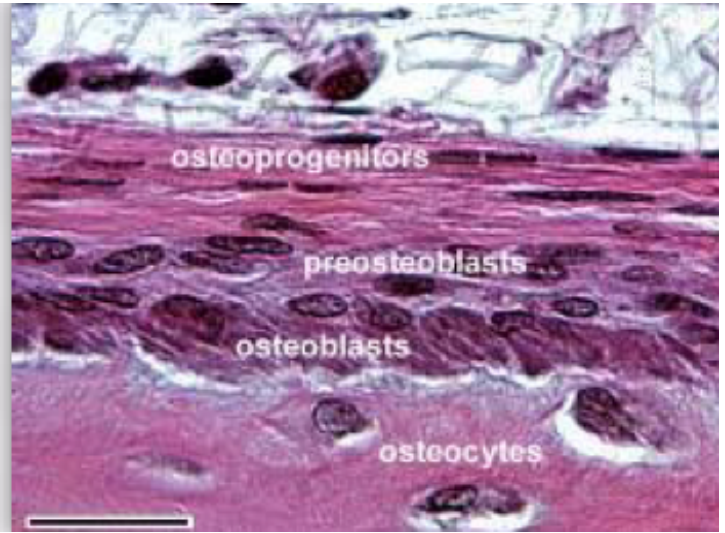


compact bone

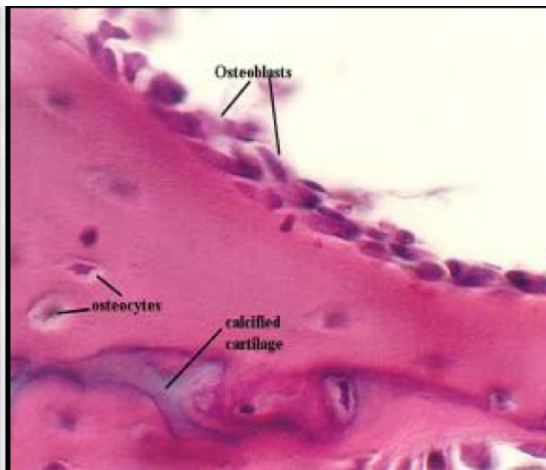
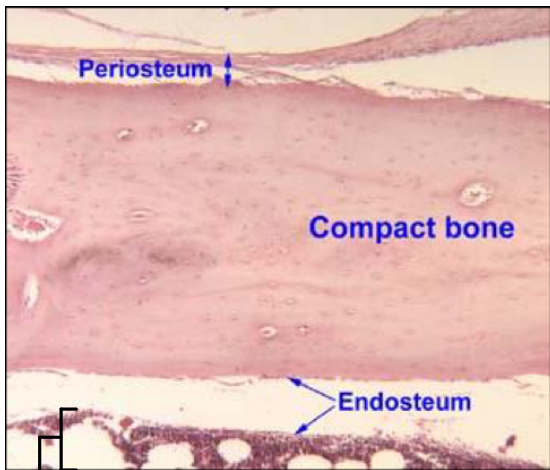
spongy bone or cancellous bone



Periosteum = outer layer of compact bone



Endosteum



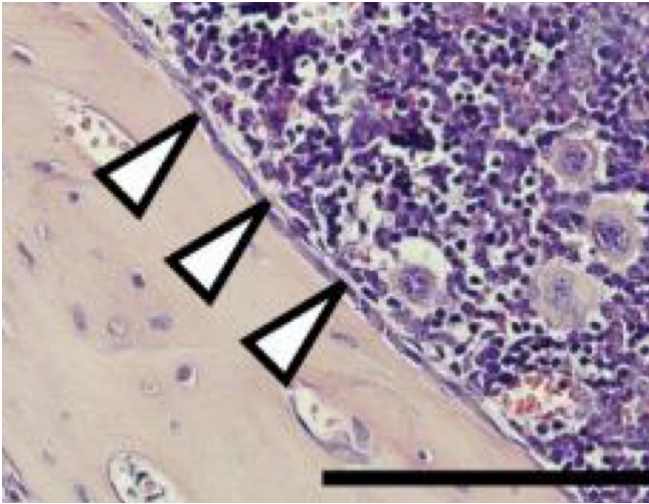
• thin cellular layer

cancellous bone

### Cell Type of Bones

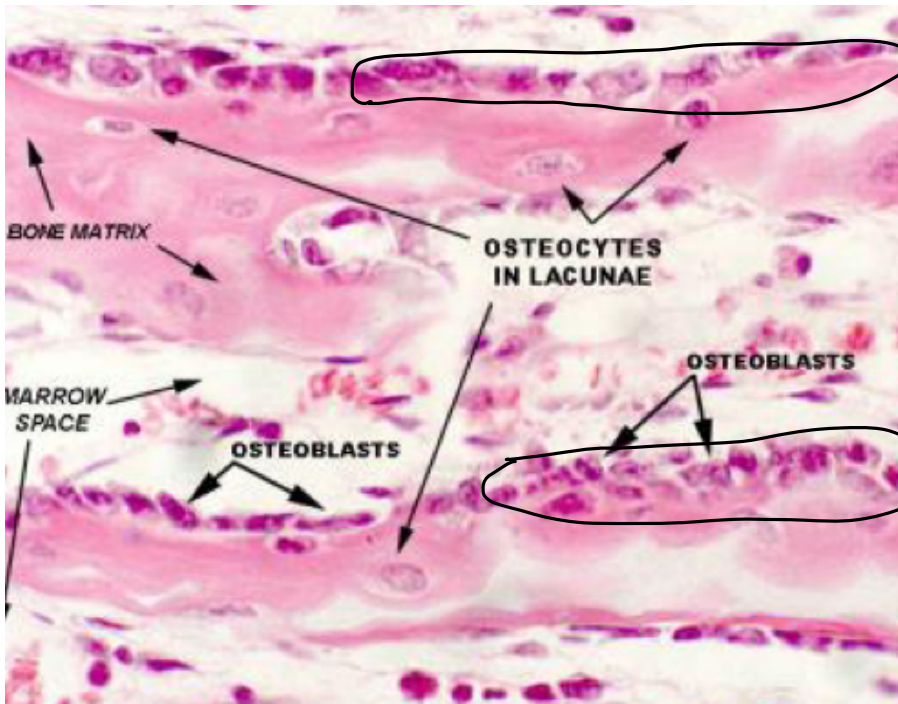
- Osteoprogenitor Cells
- Osteoblasts
- Osteoclasts
- Osteocytes

## Osteoprogenitor Cell



- located in periosteum and endosteum cellular layer
- differentiate into osteoblast

## Osteoblasts

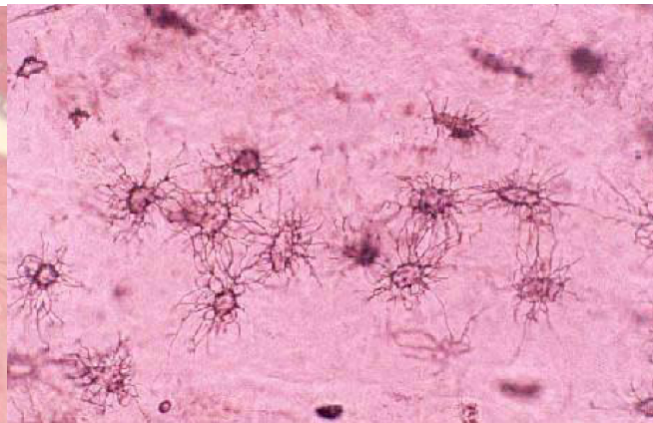
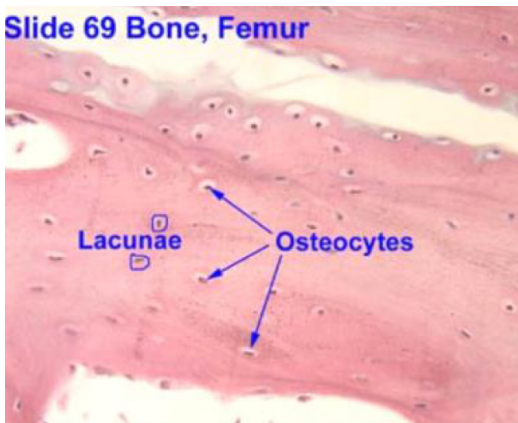


### Osteoblasts

- like epithelial surface
- produce matrix
- prominent nucleolus
- basophilic cytoplasm

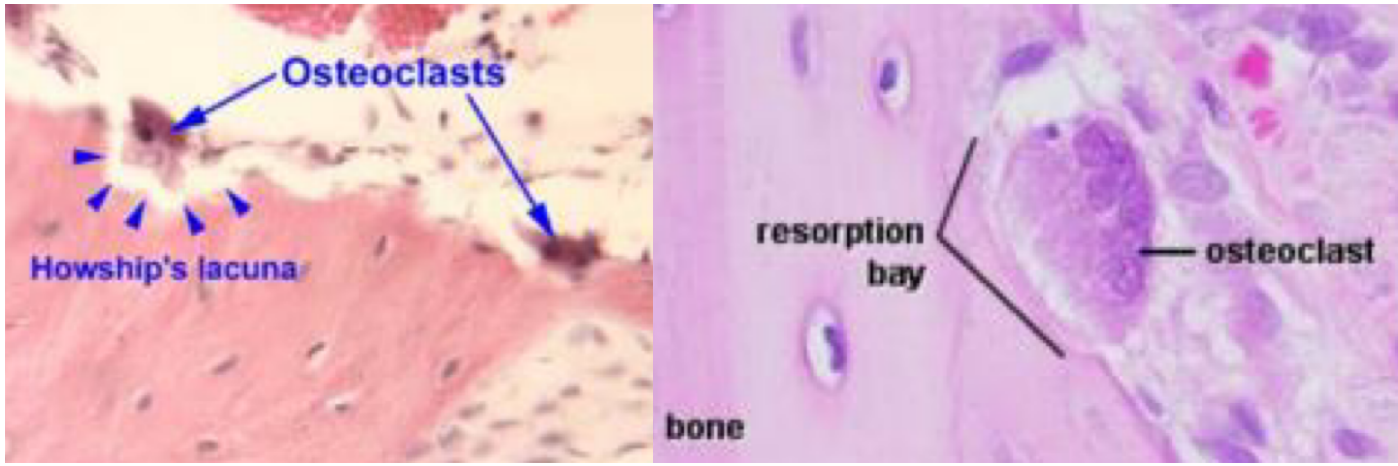
## Osteocytes

Slide 69 Bone, Femur

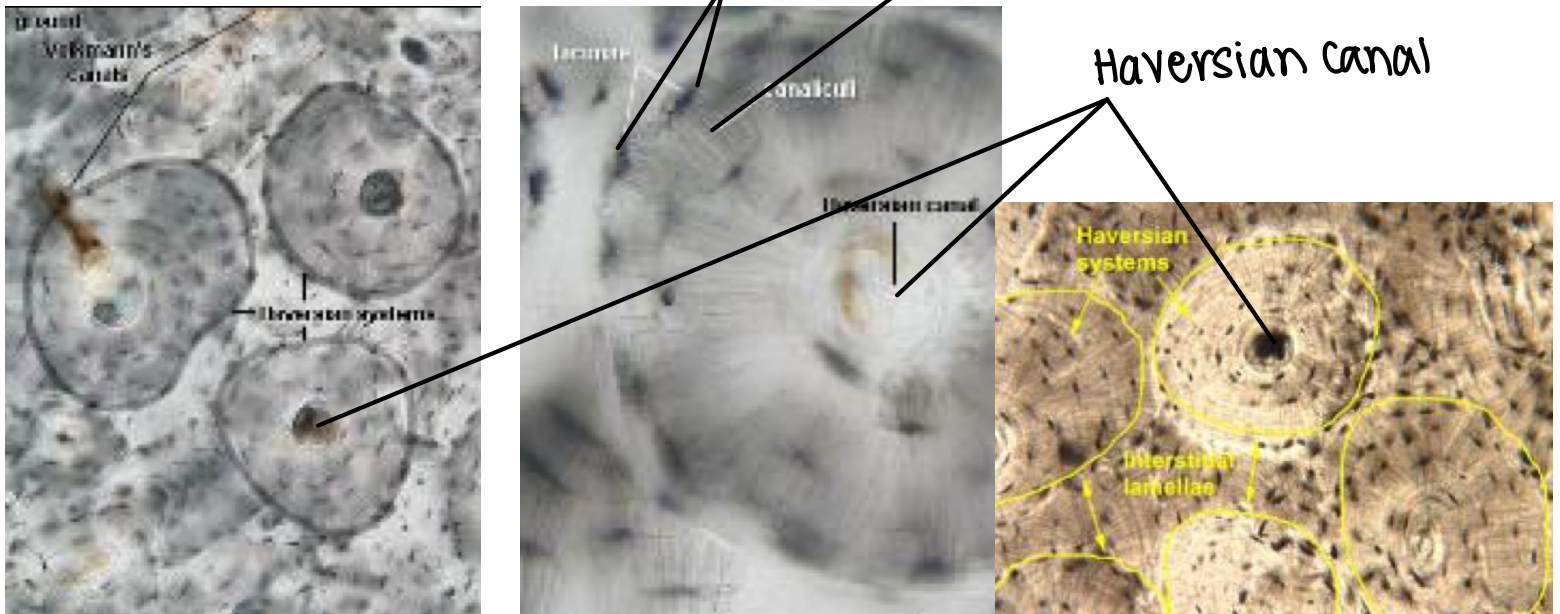


- occupy lacunae in bone
- Canaculi  
Cytoplasmic extension

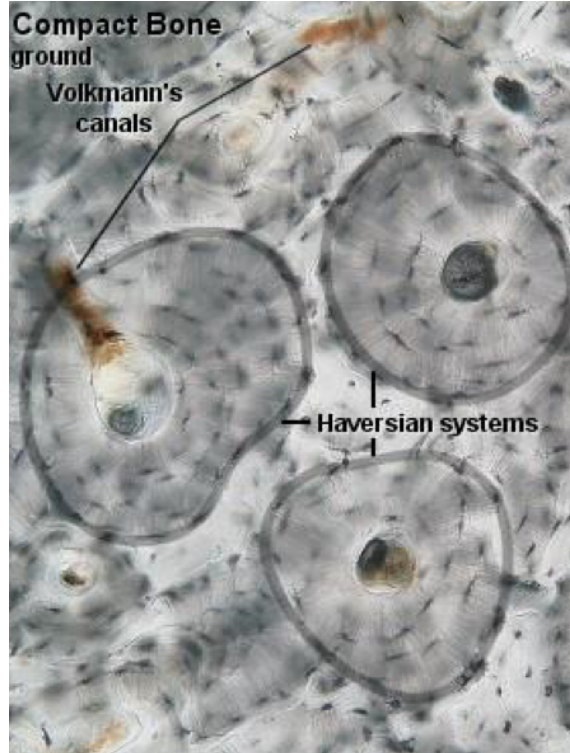
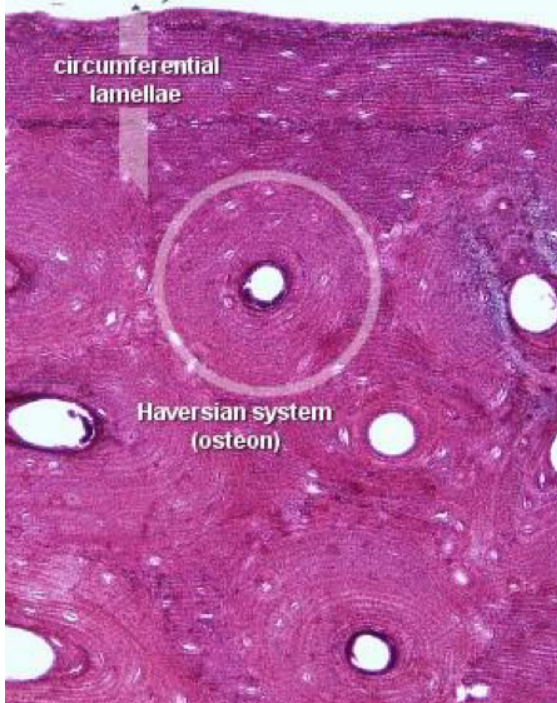
# Osteoclasts



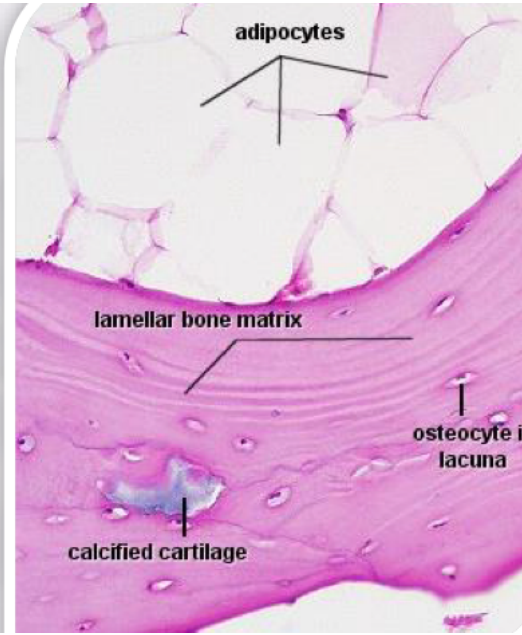
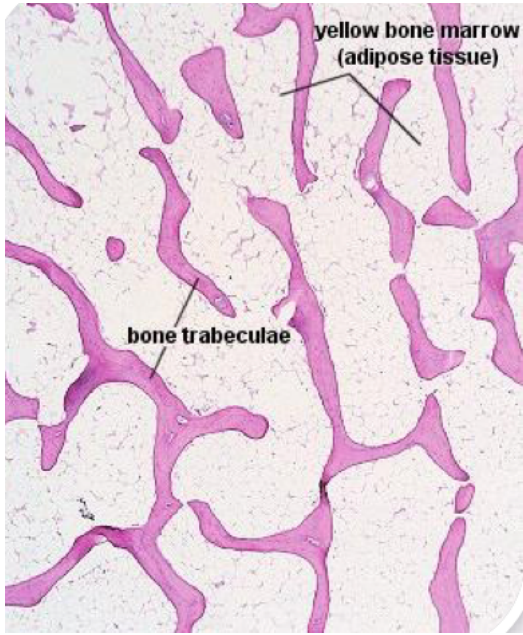
# Haversian System



# Compact Bone Schmorl stained



## Cancellous Bone



## Endochondral Ossification

