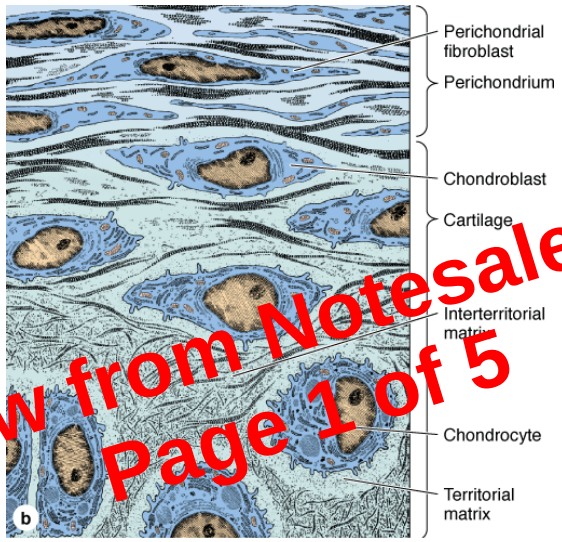
Histology of cartilage

- Cartilage is a tough, flexible form of connective tissue, characterised by extracellular matrix (ECM), with a high concentration of glycosaminoglycans and proteoglycans which interact with collagen and elastic fibres
- Cartilage consists of **chondrocytes** embedded in an extensive ECM
    - Chondrocytes have low metabolic activity
    - Chrondrocytes synthesize and maintain ECM components
    - Chondrocytes are located in matrix cavities called **lacunae**
- Cartilage is **avascular** and receives nutrients by diffusion from capillaries in adjacent connective tissue
- **Perichondrium** (dense connective tissue) surrounds cartilage in most places
    - Also harbours cartilage's vasculature supply, nerves and lymphatics
    - Articular cartilage lacks perichondrium



Taken from Mescher, Junqueira's Basic Histology: Text and Atlas, Twelfth Edition

- Variations in the composition of matrix components and cells produce three types of tissue
    - Hyaline
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