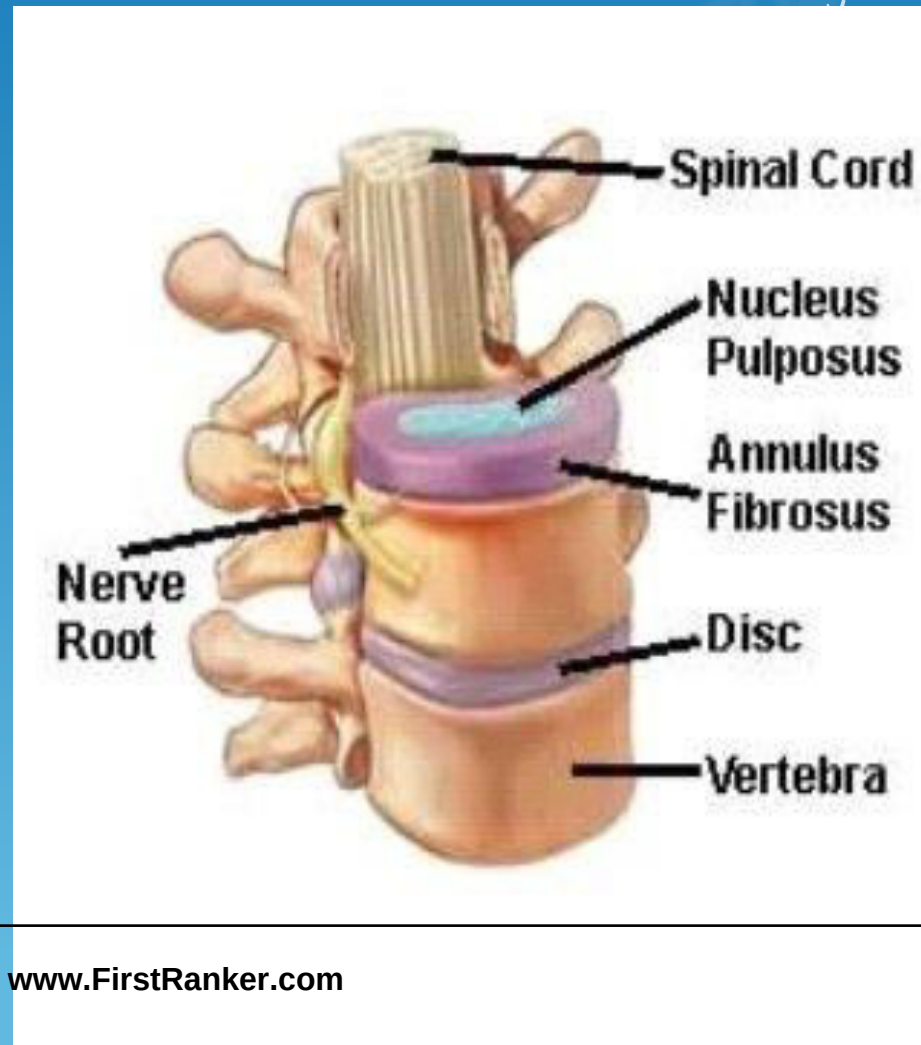


CARTILAGE

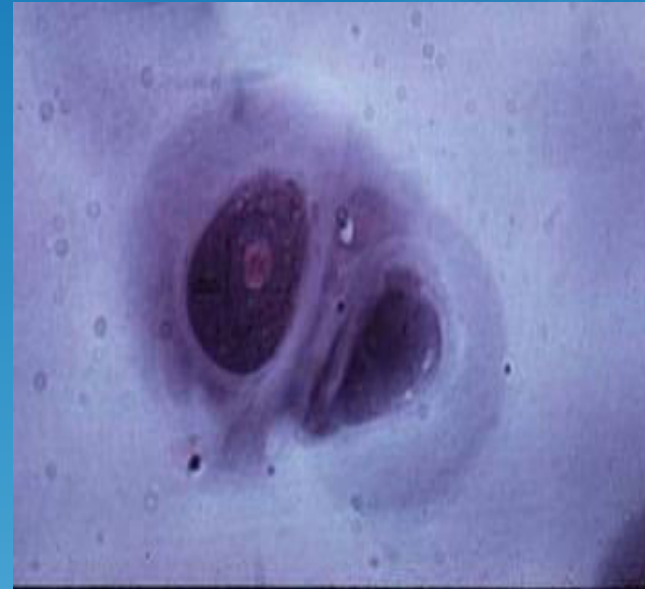
INTRODUCTION

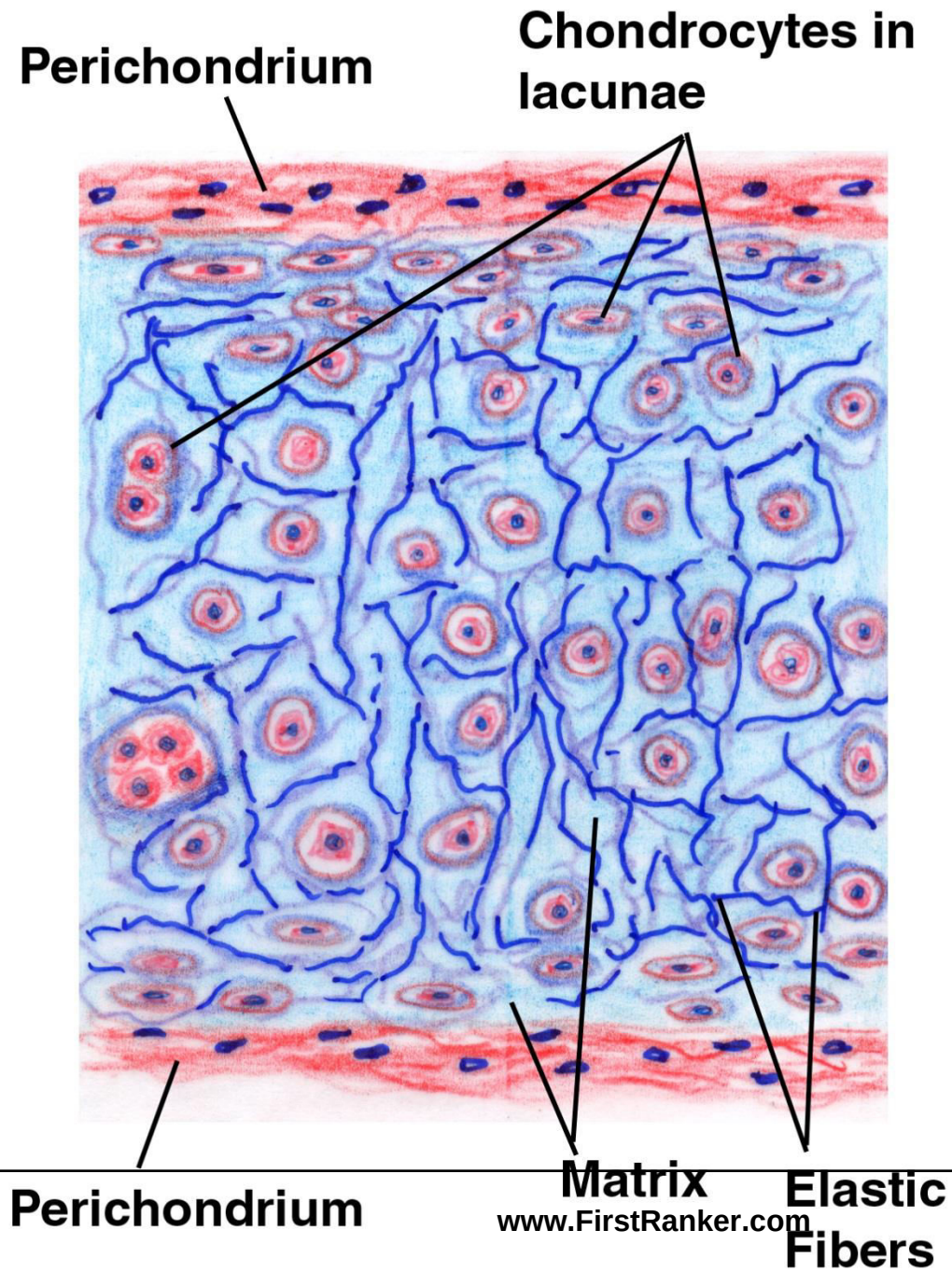
- It is a specialized connective tissue



Characteristics

- Chondrocytes
 - Located in lacunae
- Extensive extra-cellular matrix
 - Fibers, Collagen, & elastic
 - Ground substance
 - Fibers bind together and give firm, flexible properties to tissue





Functions of Cartilage

- Firm consistency of the extracellular matrix allows the tissue to bear mechanical stresses without permanent distortion
- Supports soft tissues.
- Shock-absorbing because it is resilient.
- Smooth surface allows sliding .
- Essential for growth, development of bone.

TYPES OF CARTILAGE

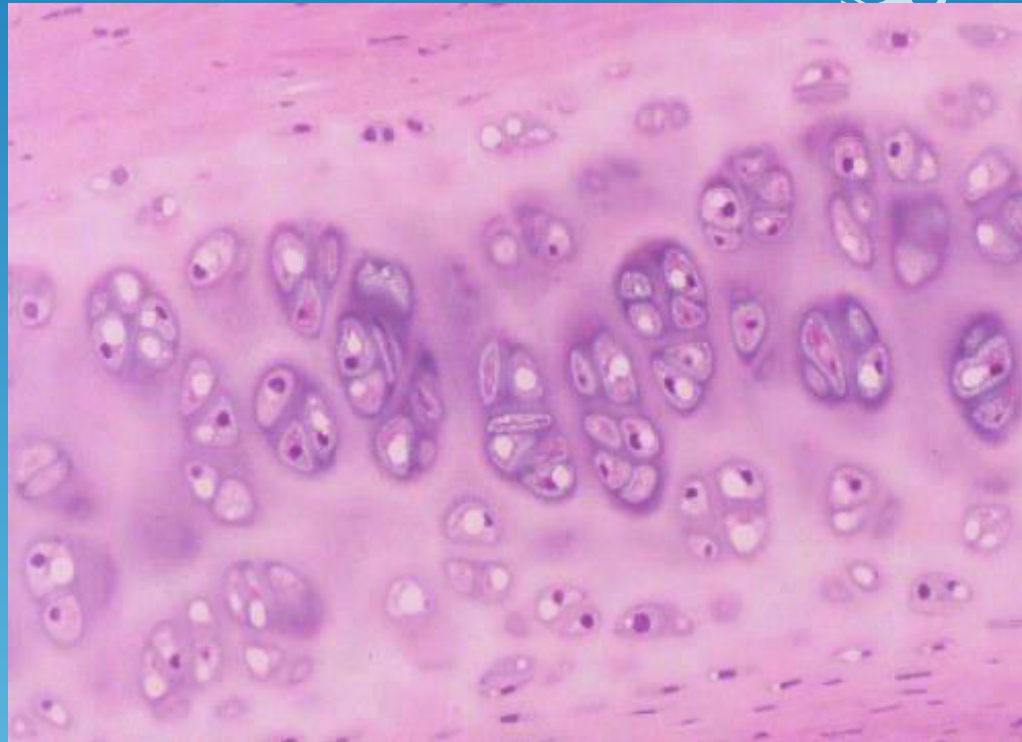


There are 3 types of cartilage

- Hyaline cartilage
- Fibrous cartilage
- Elastic cartilage

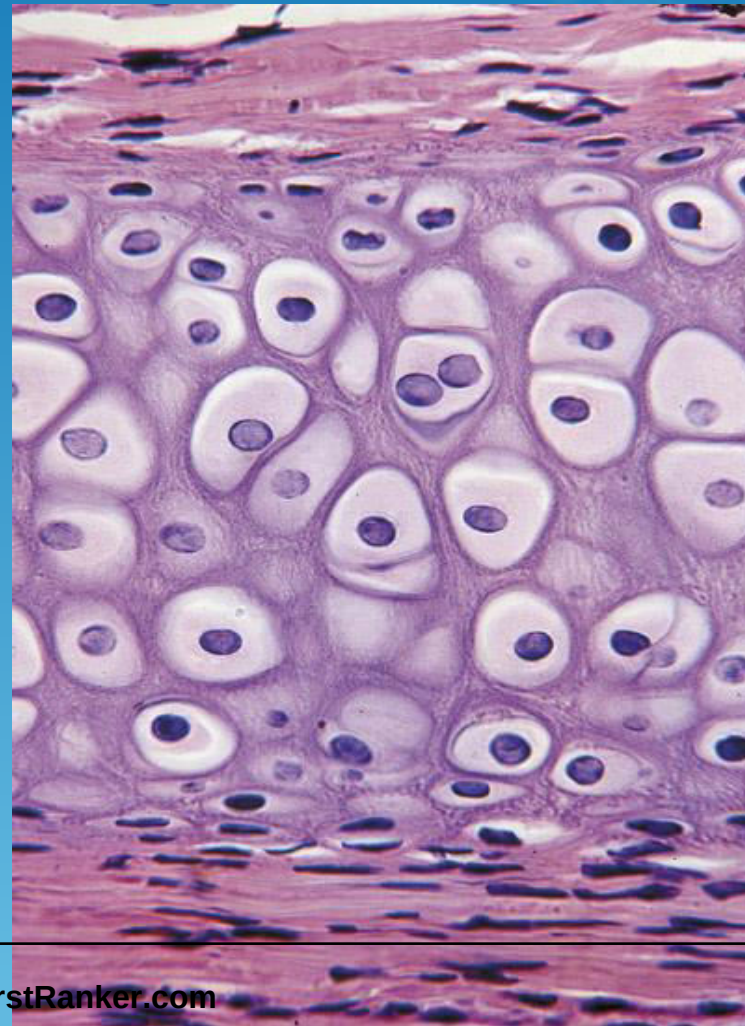
HYALINE CARTILAGE

- **Hyaline cartilage is the most common type, found in several places and serves as a structural model**

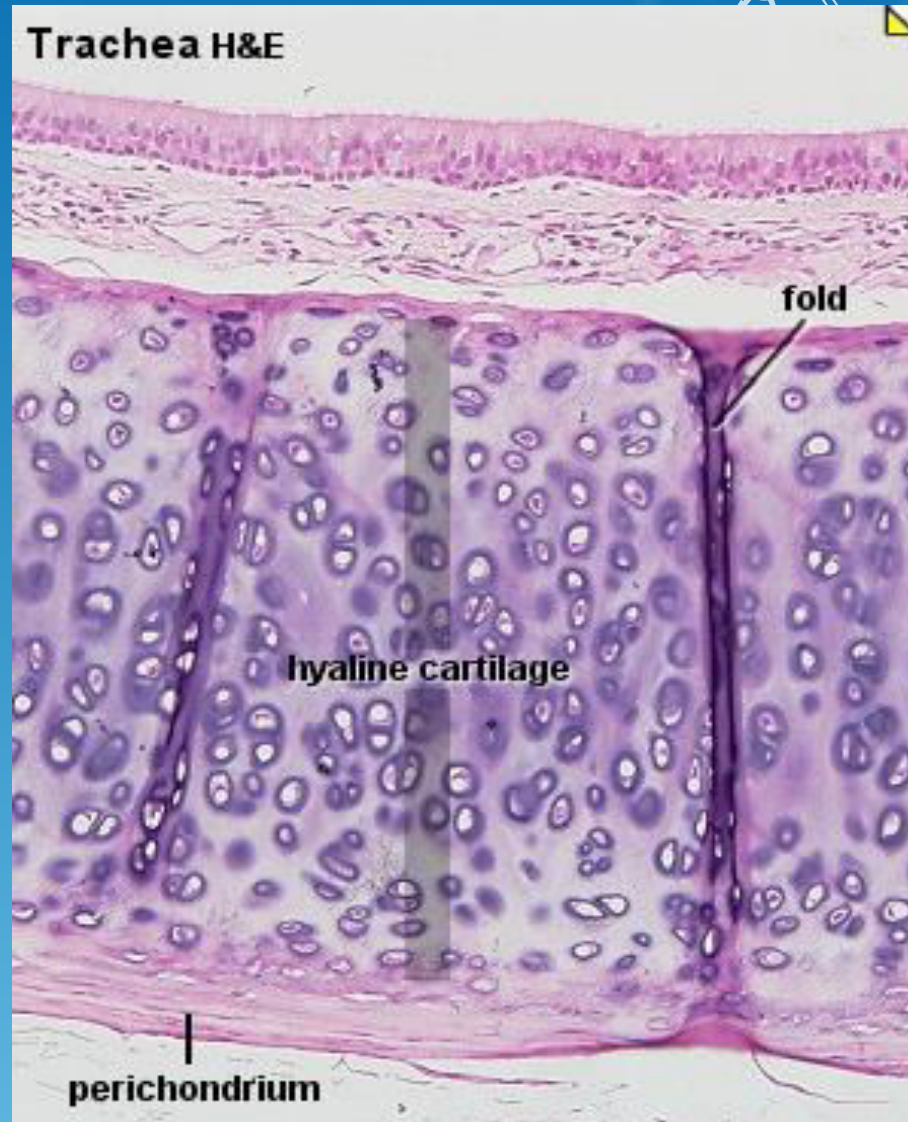


Hyaline Cartilage

- Cells embedded in clear matrix(halos meaning glass)
- Perichondrium on surface



- Found at ends of bones, nose, trachea, larynx
- Bluish white color.
- Strong, rubbery, flexible tissue.

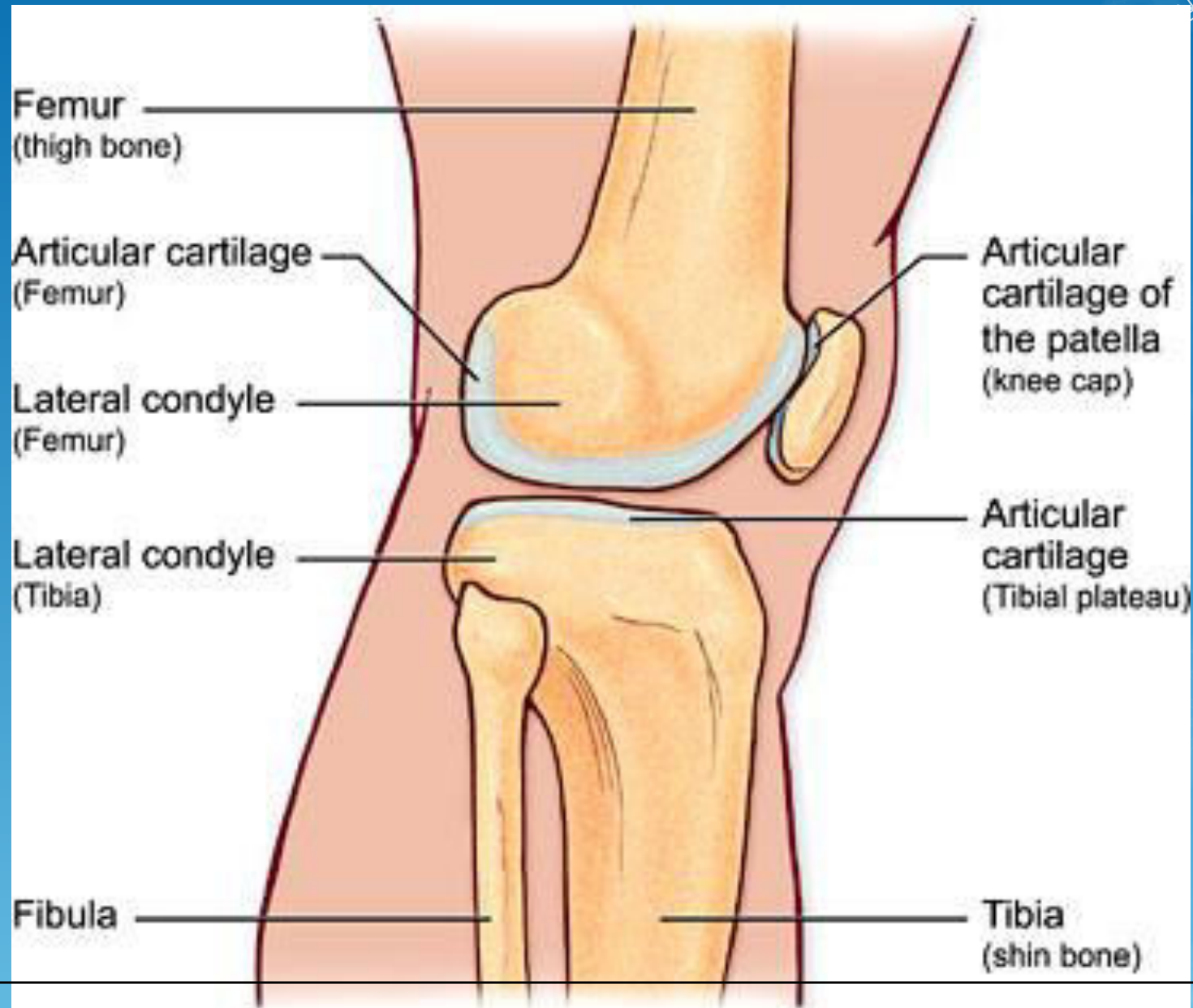


TYPES OF HYALINE CARTILAGE

It has two types

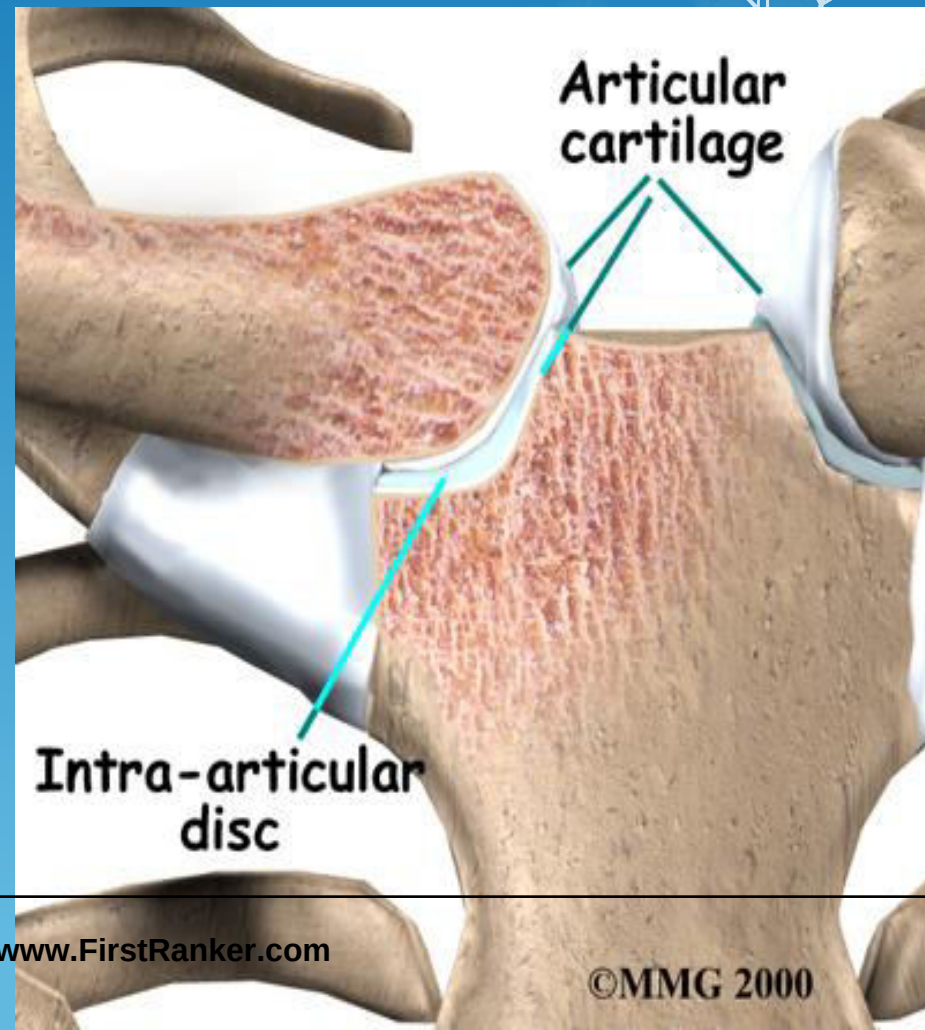
- Articular

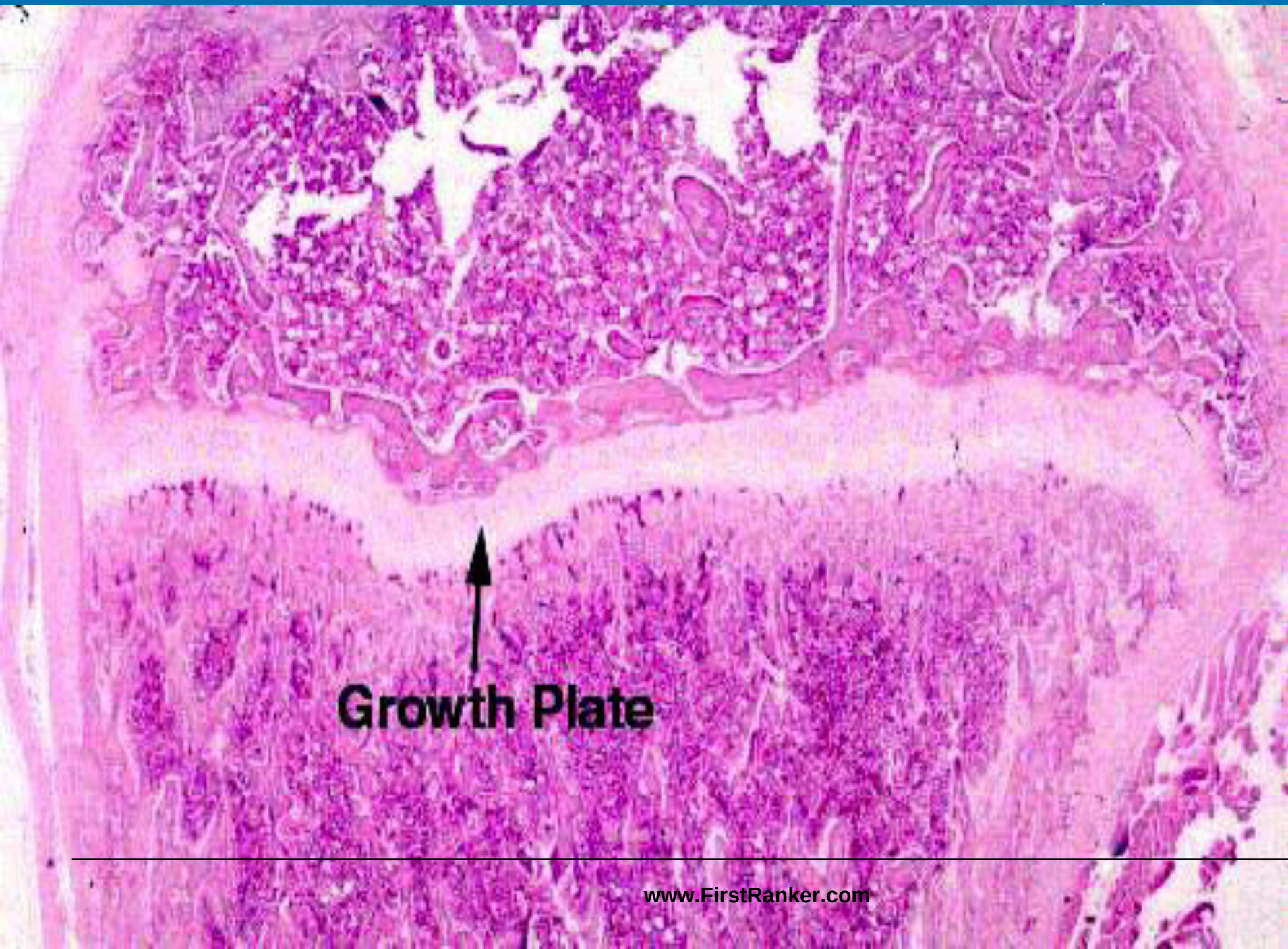
- Costal

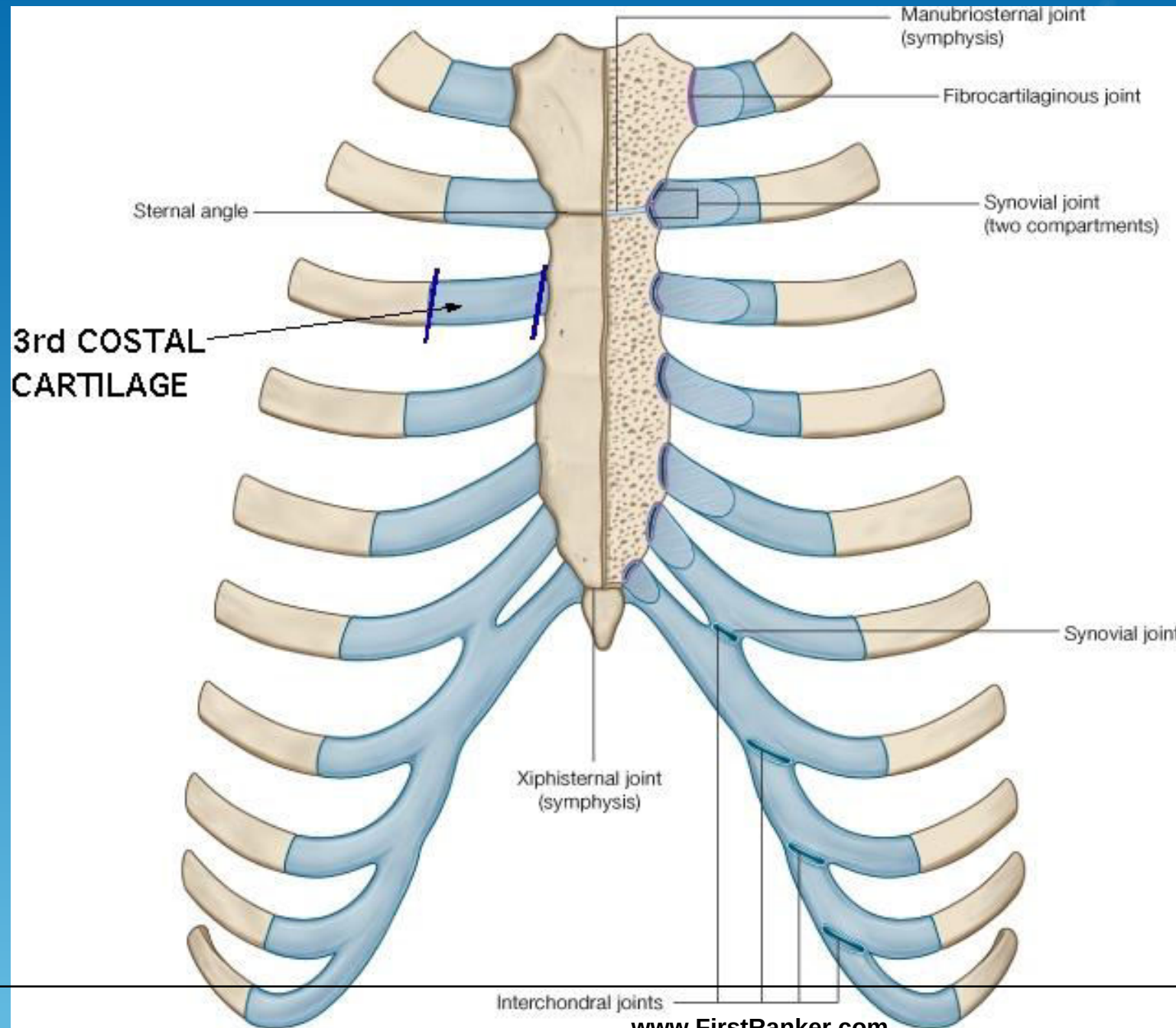


ARTICULAR CARTILAGE

- Covers articular areas of bones forming synovial joints
- Provides an extremely wear resistant, smooth polished surface bathed by synovial fluid

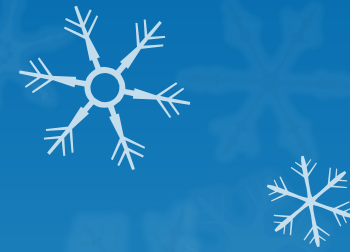
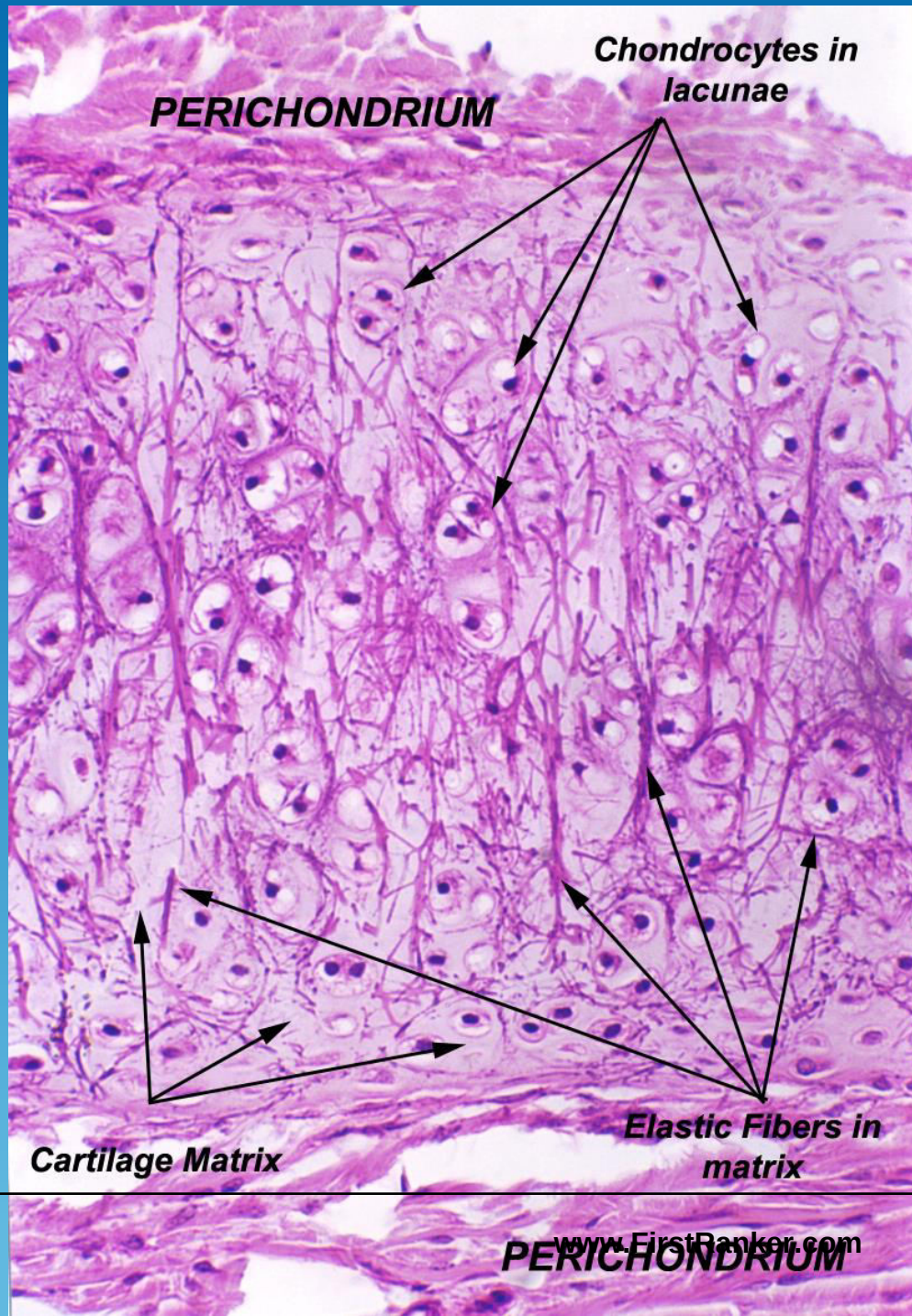




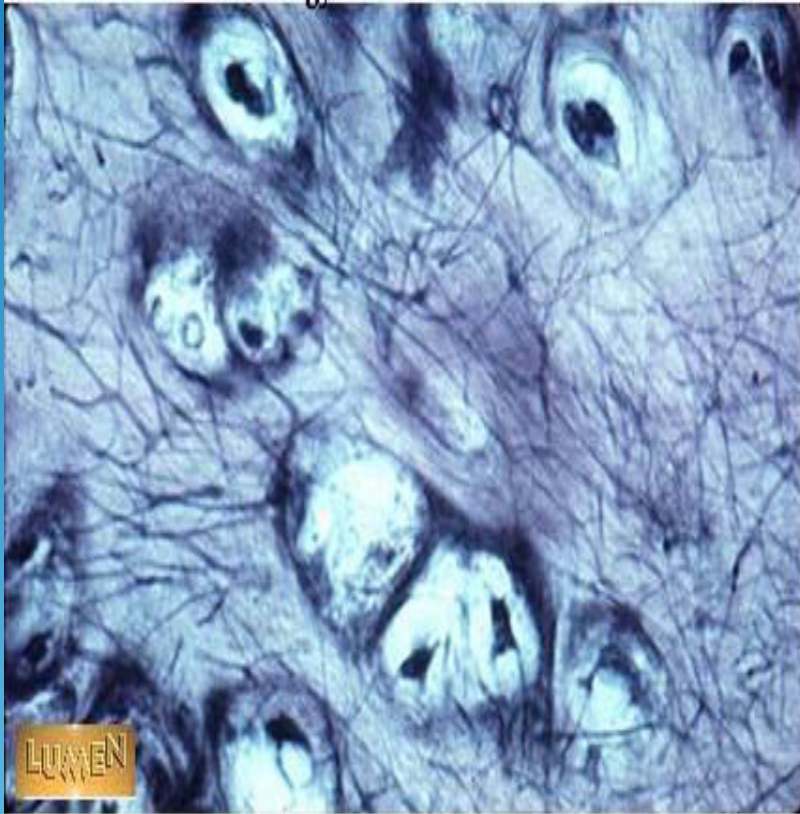


ELASTIC CARTILAGE

- Yellowish in colour
- Contains elastic fibers

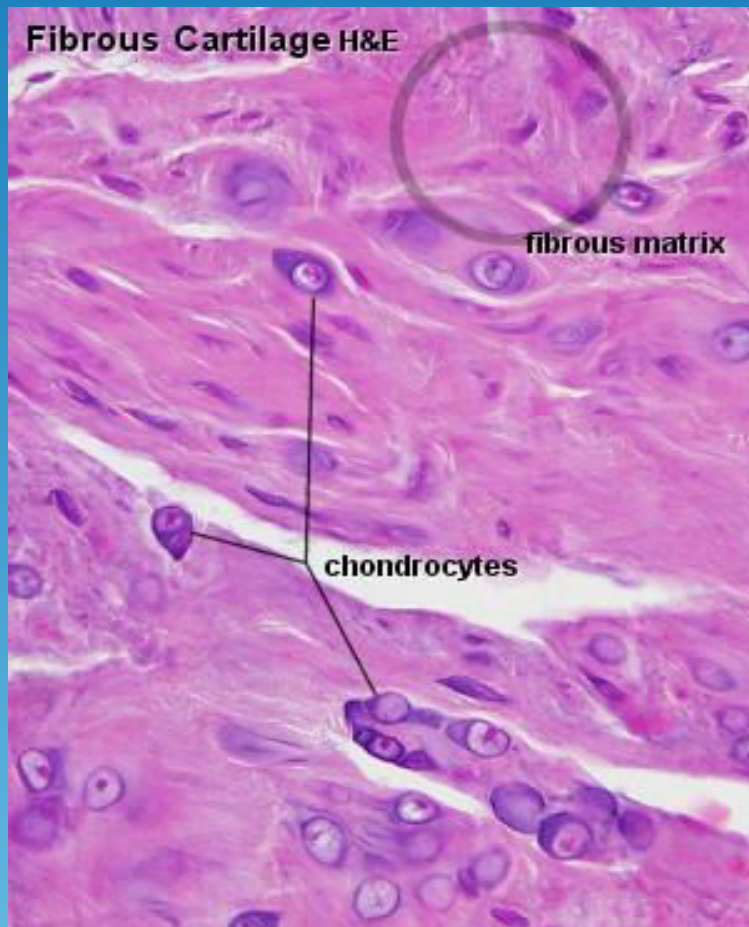


ELASTIC CARTILAGE

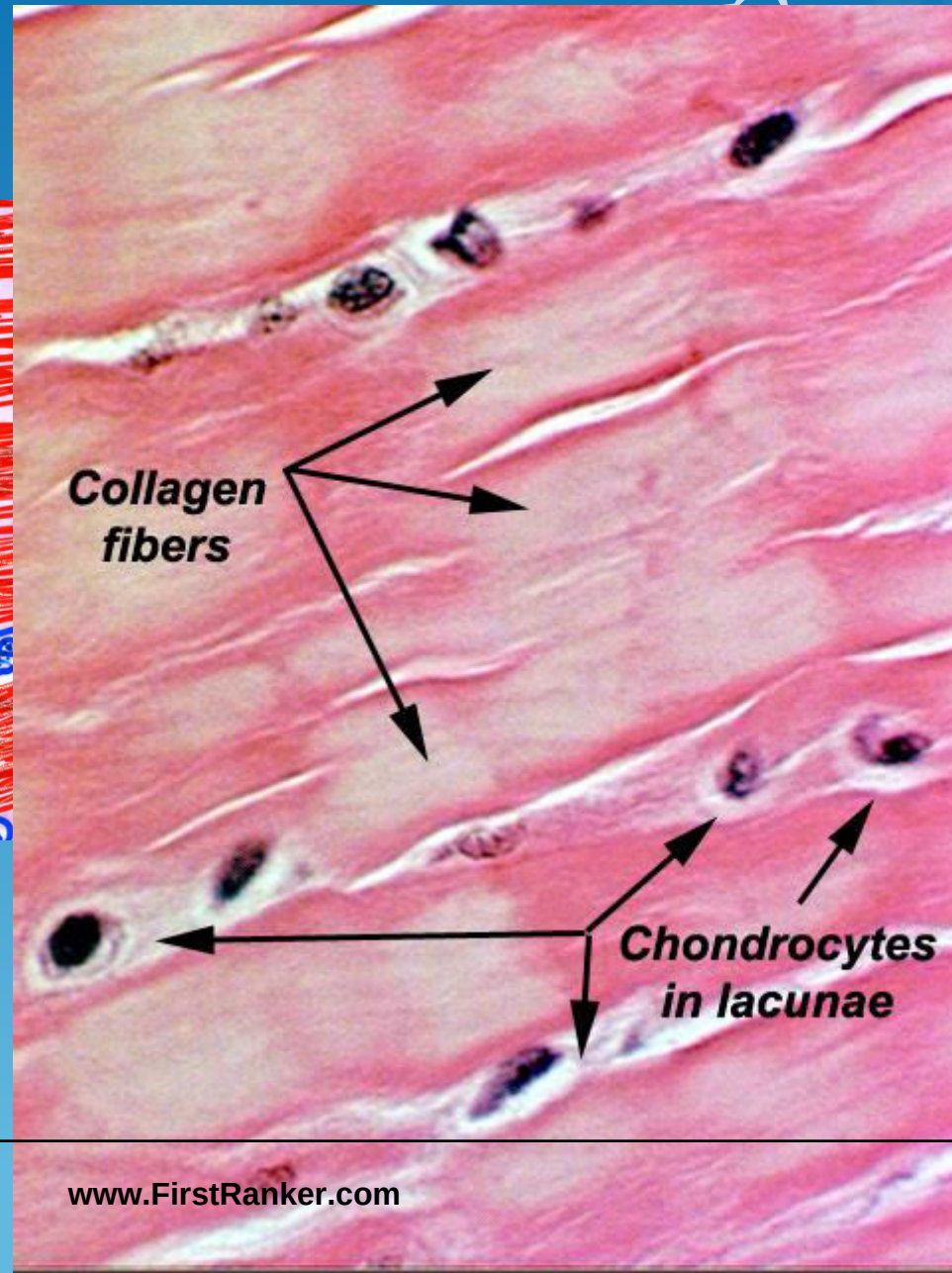
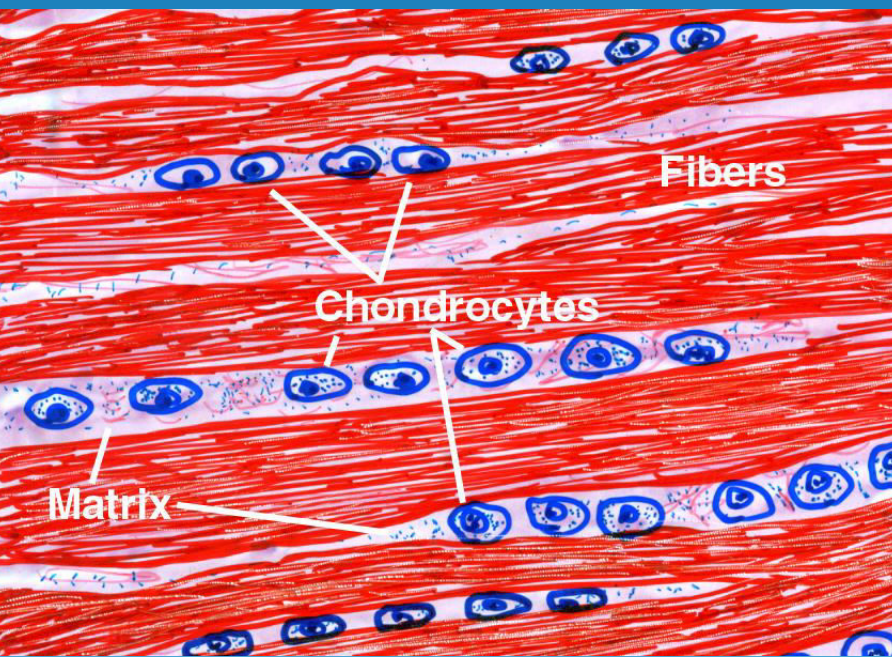


- Found in auricle of ear, walls of external auditory canals, eustachian tubes, epiglottis, larynx
- Maintains shape, deforms but returns to shape; flexibility of organ; strengthens and supports structures.

Fibrocartilage



- *Collagen type I is dominant in fibrous cartilage*
- is typically found in relation to joints (forming intra-articular lips, disks and menisci) intervertebral disks, symphysis pubis.



Thank
You