

Al- Mustaqbal University College  
First stage.  
Department of Optometry(Optics)



جامعة المستقبل الاهلية  
مرحلة الاولى  
قسم التقنيات البصرية

# Head and neck anatomy

## Lec. 8

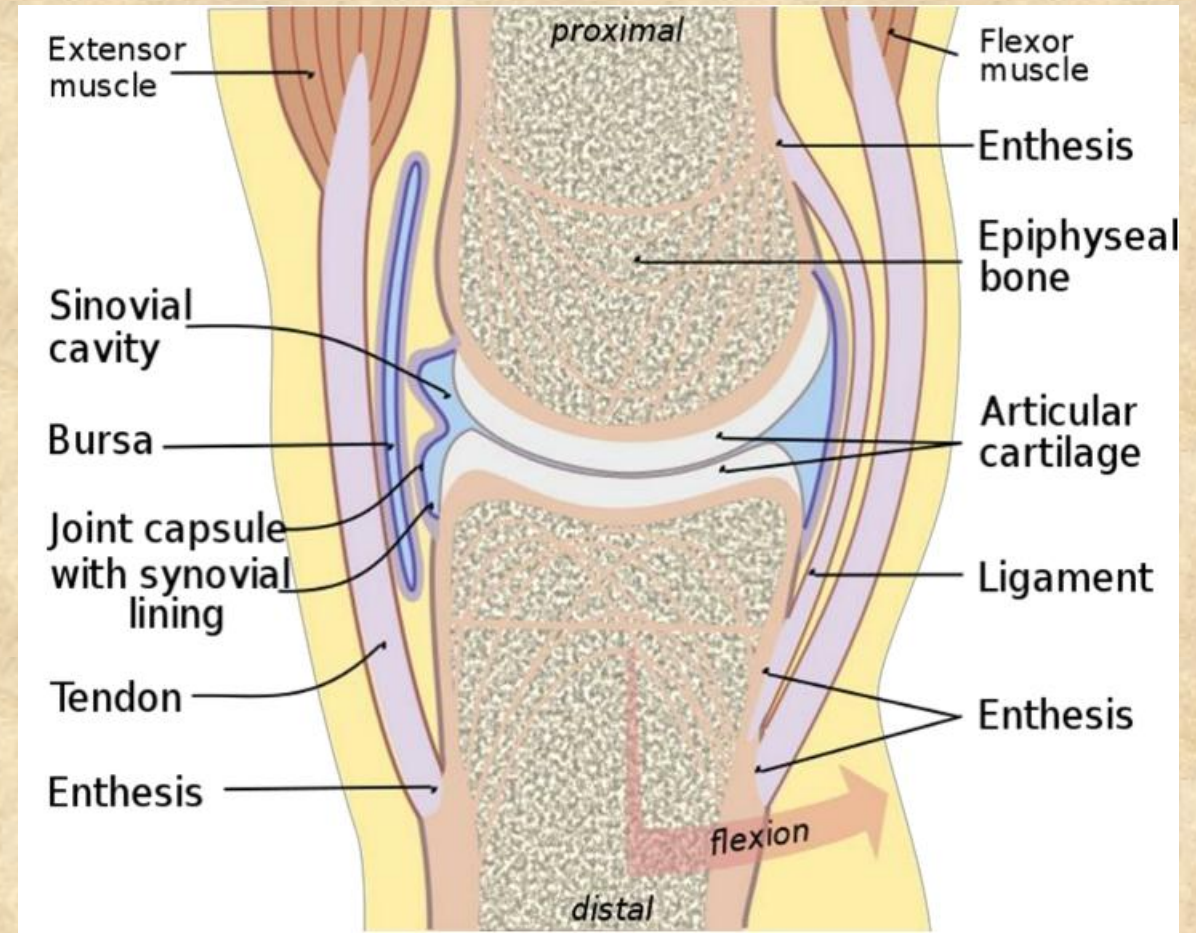
***Anatomical Terminology***

Dr. Marrwan Hisham Mohamed

# Joints

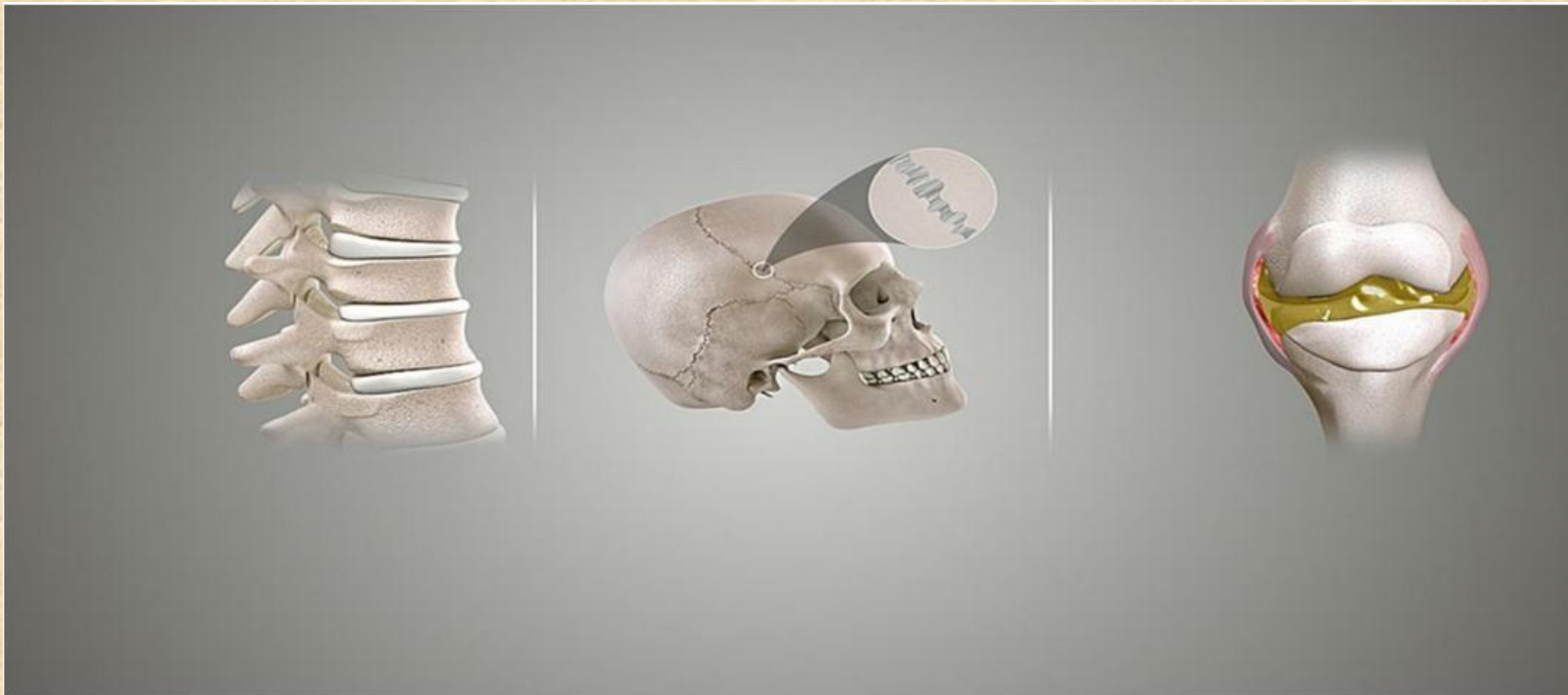
∞ **Joint:** is the connection made between bones in the body which link the skeletal system into a functional whole.

∞ The area where two bones are attached for the purpose of permitting body parts to move.



# Types of Joints

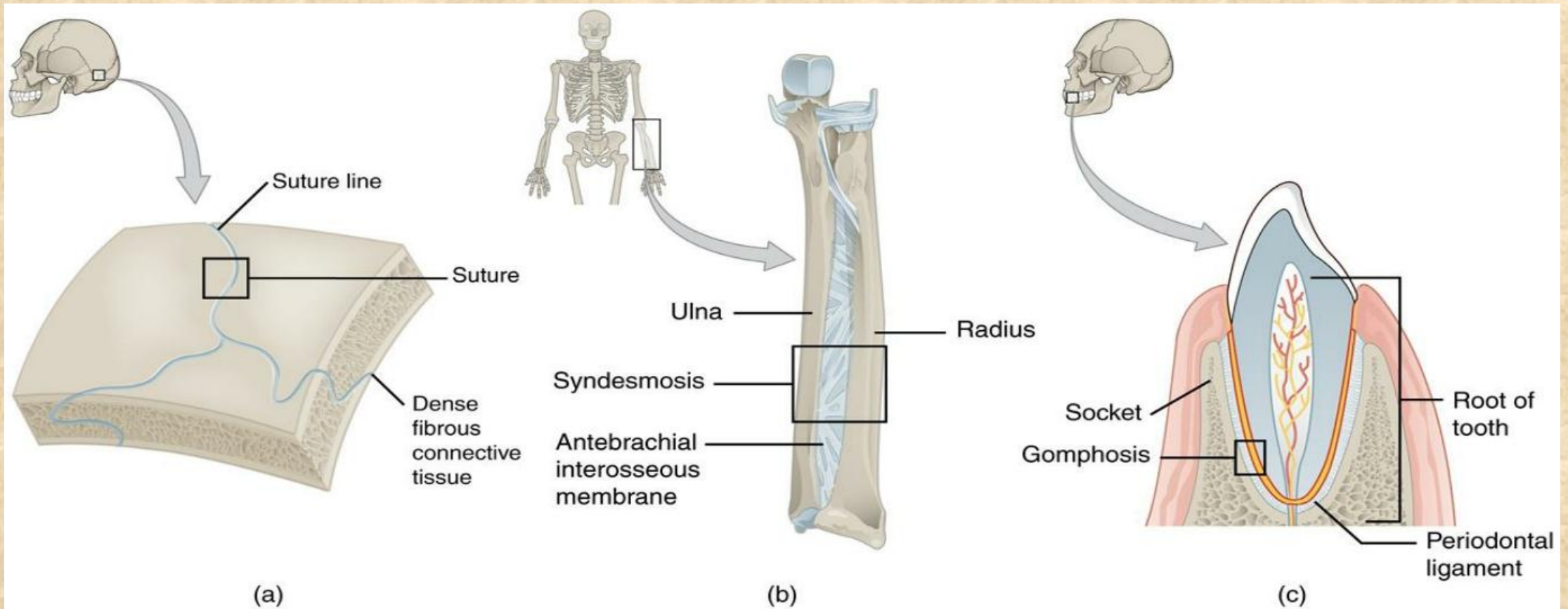
∞ Joints can be classified by either their( **structure** or **function**).



# **Structural classification**

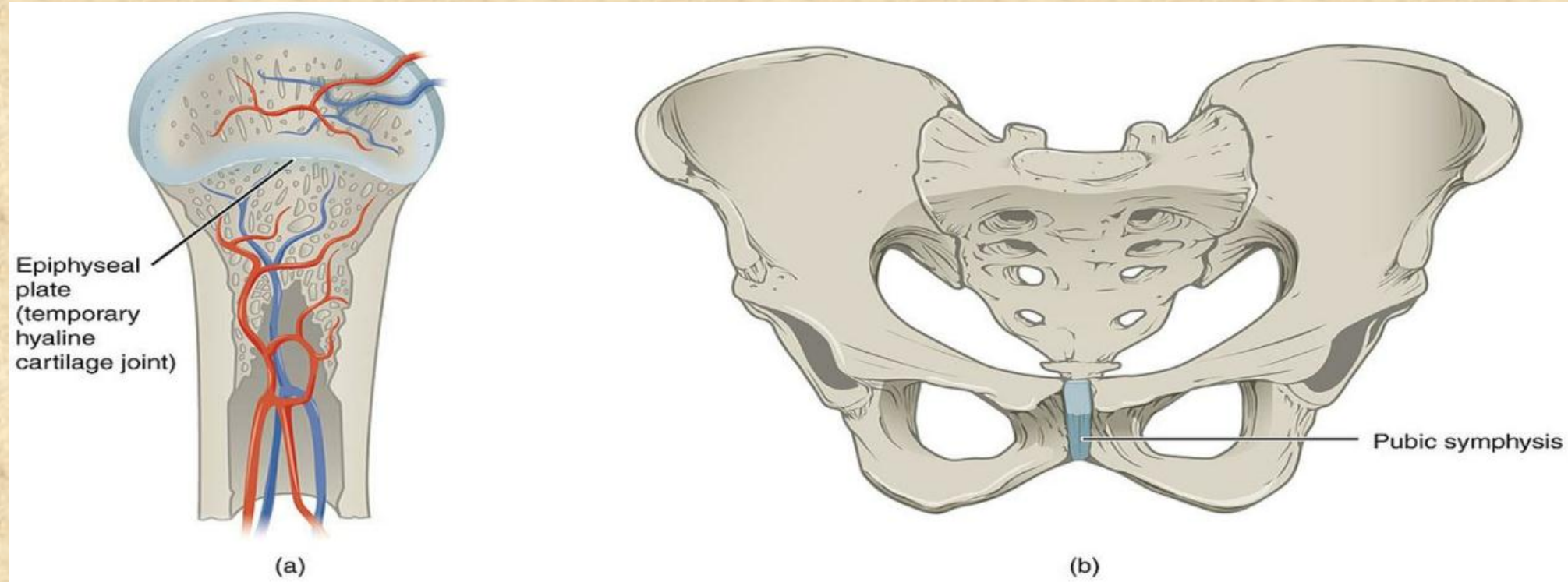
# 1- Fibrous joint

- Joined by dense regular connective tissue that is rich in collagen fibers.



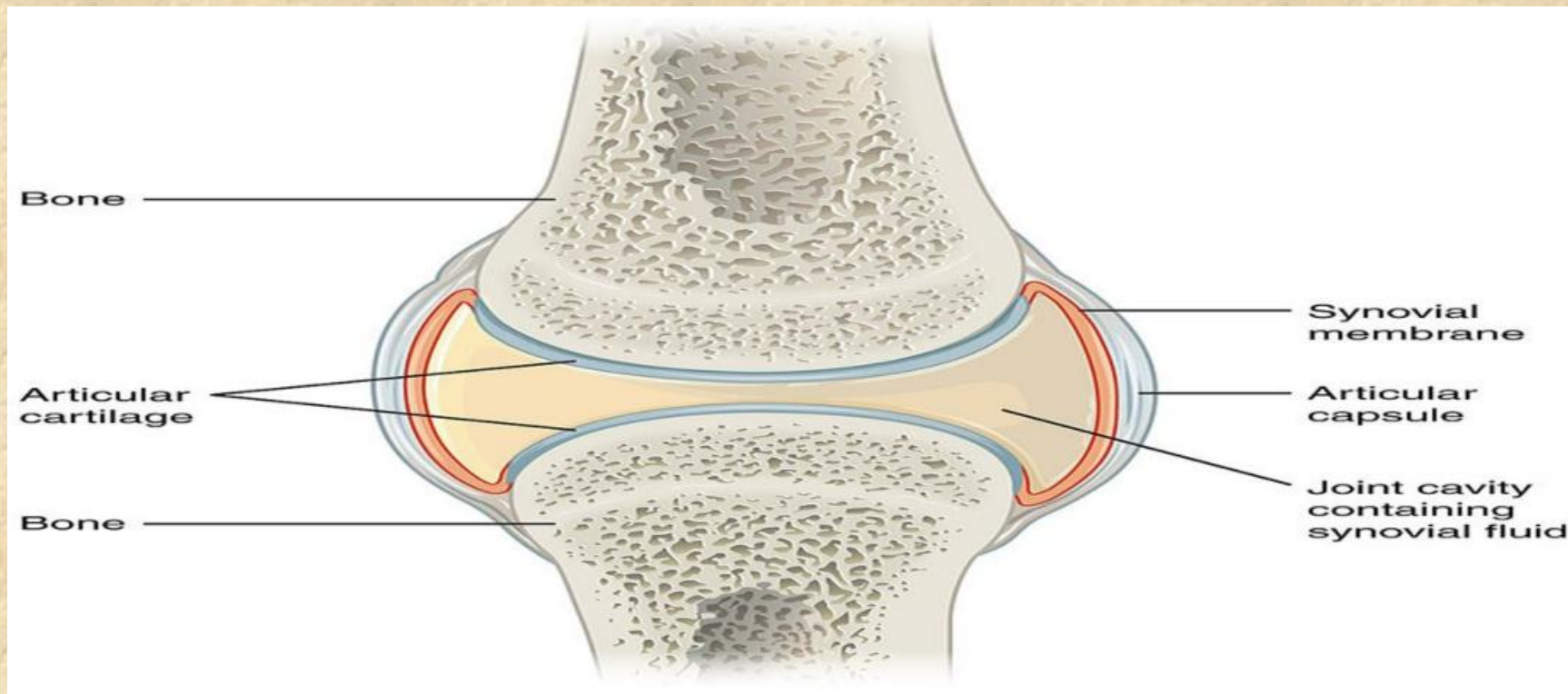
## 2- Cartilaginous joint

- Joined by cartilage. There are two types: primary cartilaginous joints composed of hyaline cartilage, and secondary cartilaginous joints composed of hyaline cartilage covering the articular surfaces of the involved bones with fibrocartilage connecting them.



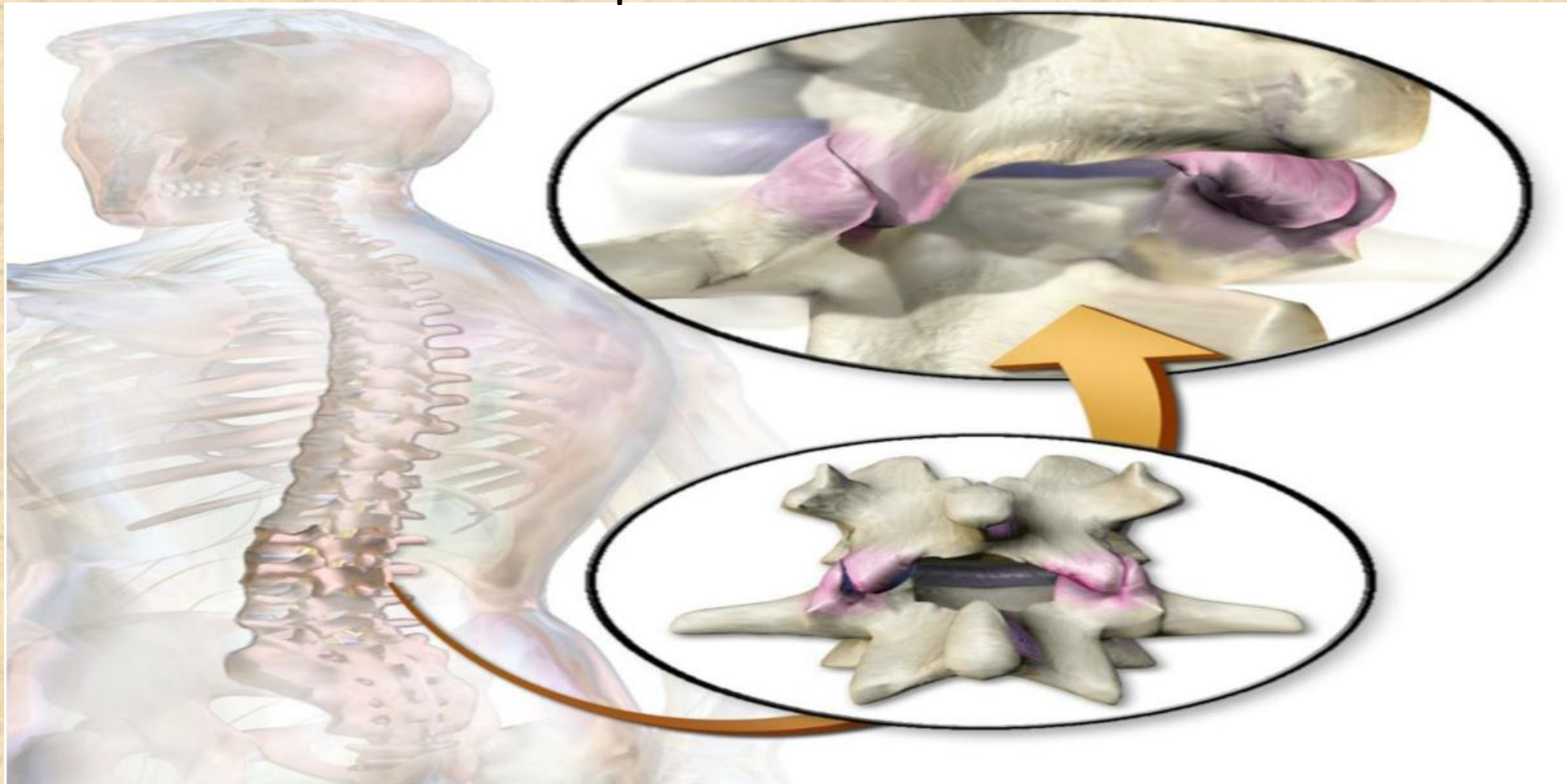
# 3- Synovial joint

- Not directly joined – the bones have a synovial cavity and are united by the dense irregular connective tissue that forms the articular capsule that is normally associated with accessory ligaments.



## 4- Facet joint

- Joint between two articular processes between two vertebrae





# **Functional classification (movement)**

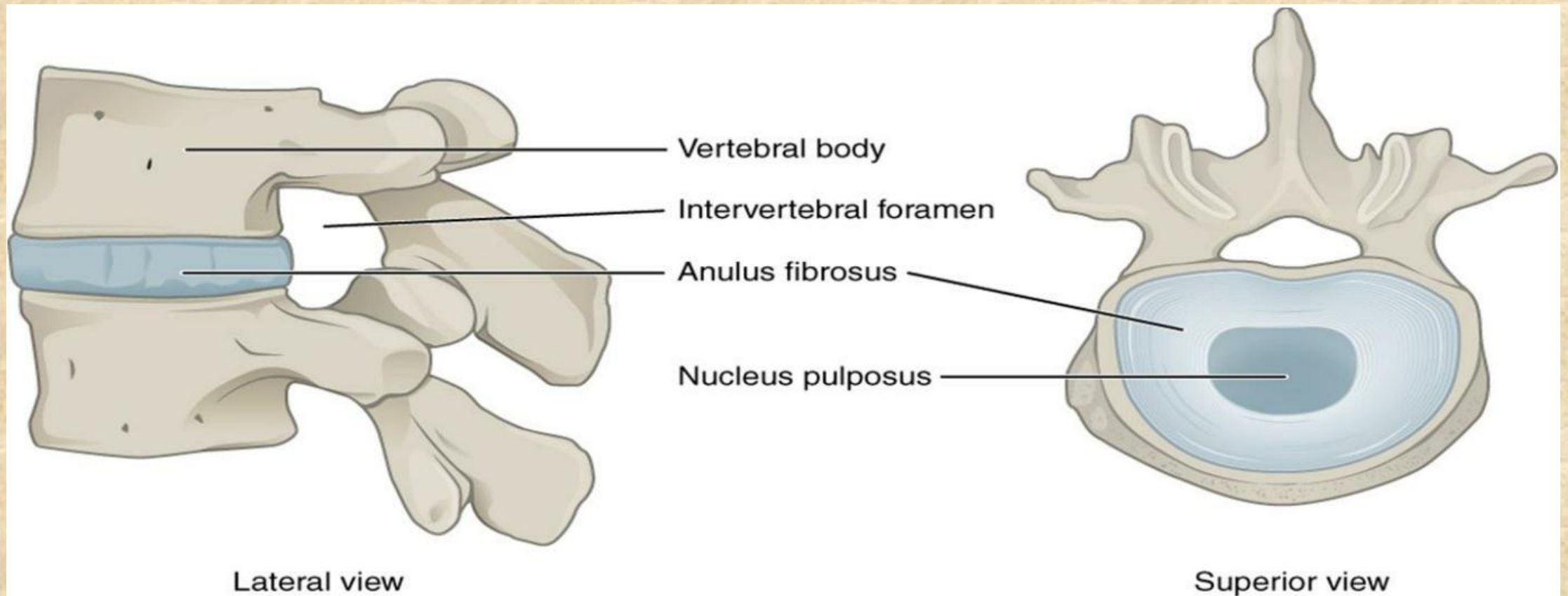
# 1-Immovable (synarthrosis).

These joints (called fibrous joints) are important for stability and protection. There are three types of immovable joints:

- **1-suture** :These narrow fibrous joints connect bones of the skull )(excluding the jaw bone).
- **2-syndesmosis** :This type of fibrous joint connects two bones that are relatively far apart) (ulna and radius).
- **3- Gomphosis** :This type of fibrous joint holds a tooth in place in its socket in the upper and lower jaw

## 2- Slightly Movable (**amphiarthrosis**) Joints

Amphiarthrosis : permits slight mobility. Most amphiarthrosis joints are cartilaginous joints (e.g., intervertebral discs).



## 3-Freely Movable (**Synovial**) Joints

**Freely movable joints** are classified structurally as synovial joints. Unlike fibrous and cartilaginous joints, synovial joints have a joint cavity (fluid-filled space) between connecting bones. Synovial joints allow for greater mobility but are less stable than fibrous and cartilaginous joints. Examples of synovial joints include joints in the( wrist, elbow, knees, shoulders, and hip).

**Thank you so much for your  
attention**