

Joints of the Skeletal System

- Type of binding tissue (structural)

Big Three

- Fibrous
- Cartilaginous
- Synovial

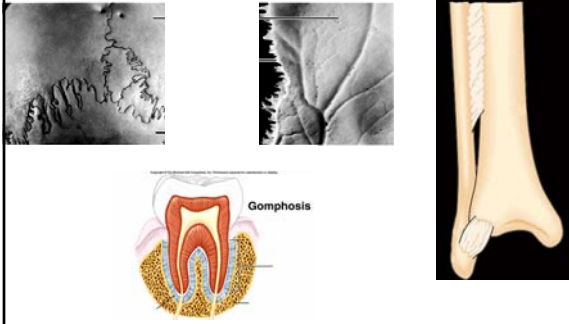
- Degree of movement (functional)

- Immovable = synarthrotic
- Slightly movable = amphiarthrotic
- Freely movable = diarthrotic

Joints

- functional junctions between bones
- bind elements of the skeleton together
- enable body movement
- enable bone growth
- permit the skull to change shape during childbirth

Fibrous Joints



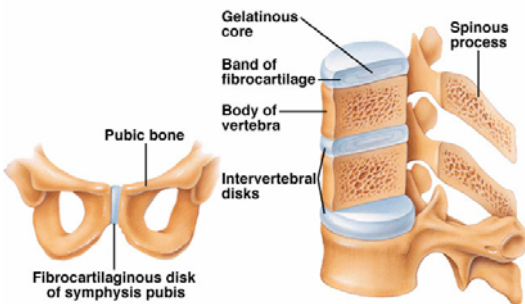
Cartilaginous Joints

- Hyaline or fibrocartilage connects bones

Types

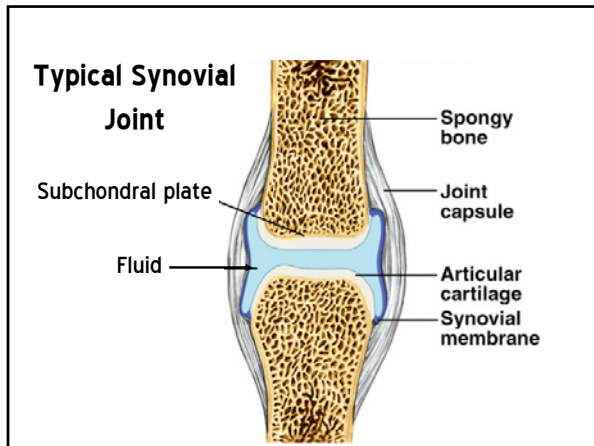
- **Synchondrosis**
 - hyaline cartilage unite bones
 - joins the **epiphyses to the diaphysis** at the epiphyseal disc for bone growth (synarthrotic joint)
- **Symphysis**
 - thin layer of hyaline cartilage with a pad of fibrocartilage in an amphiarthrotic joint
 - Ex: Intervertebral disk and pubic symphysis

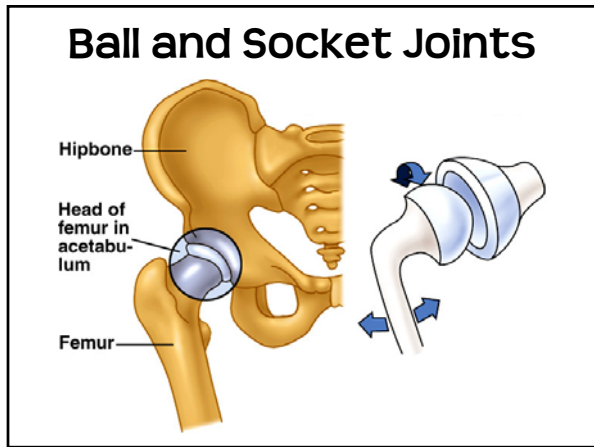
Cartilaginous Joints

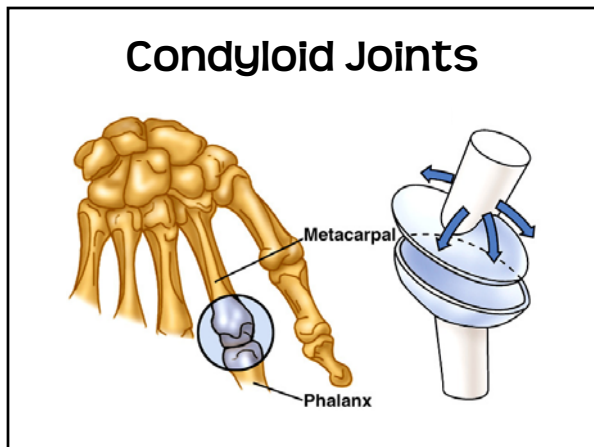


Synovial Joints

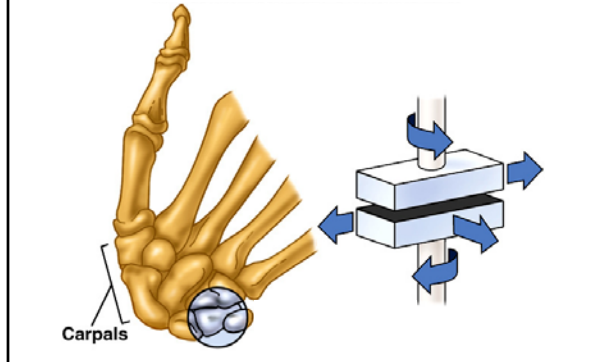
- Six major groups
- Based on shape of joint and movement
 - Ball-and-socket (femur/caxae)
 - Condylloid (Metacarpal/phalynx)
 - Gliding joints (Carpals)
 - Hinge joints (Ulna/Humerus)
 - Pivot joints (Axis/Atlas)
 - Saddle joints ("Thumb joint)



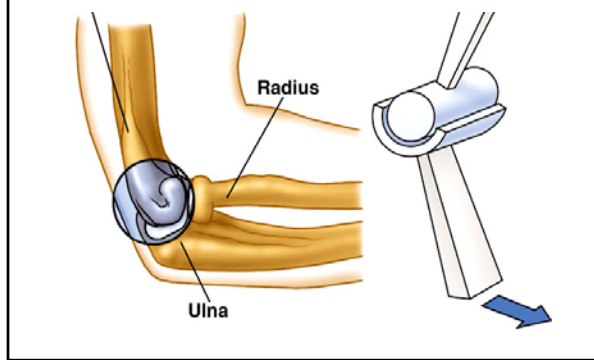




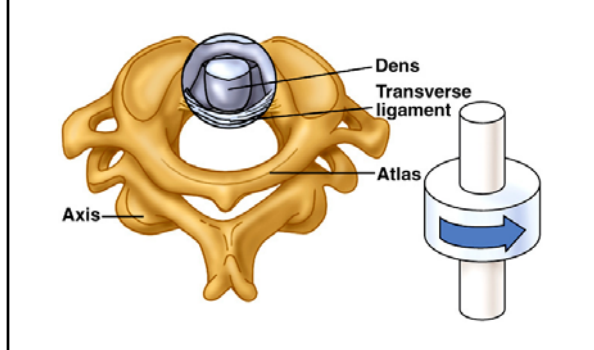
Gliding Joints



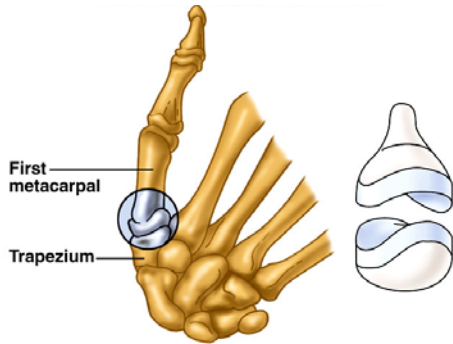
Hinge Joints



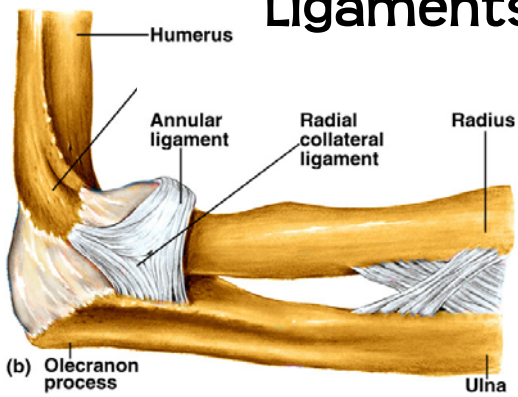
Pivot Joints

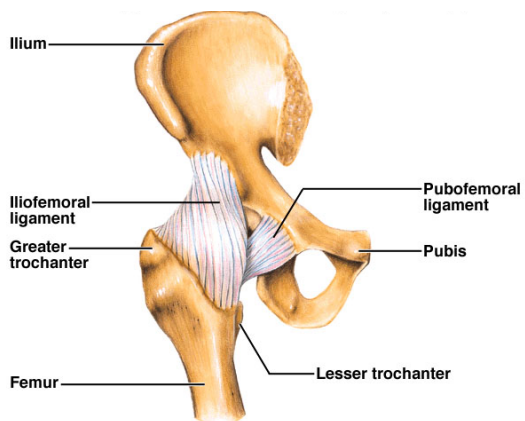


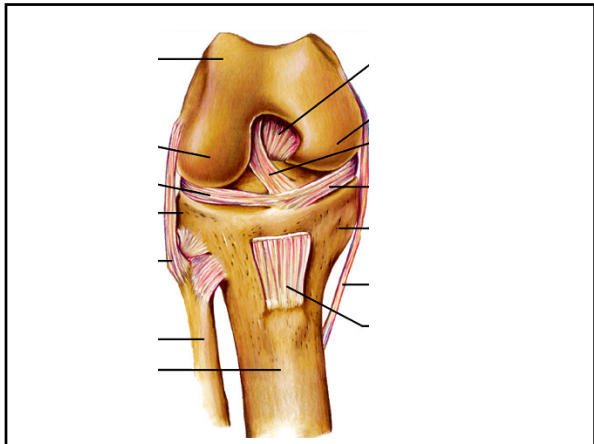
Saddle Joints



Ligaments







Types of Movements

- Produced by muscle contraction
- Pull non-fixed parts towards fixed parts
- 7 sets of opposing movements

Joint Movements

