

Anatomy and Physiology 121: Joints and Articulations

Classification of Joints

1. Type of Connective Tissue
 - a) Fibrous
 - b) Cartilaginous
 - c) Synovial
2. Degree of Movement
 - a) Synarthrotic (non-movable, limited)
 - b) Amphiarthrotic (movement good in one plane)
 - c) Diarthrotic (highly moveable in all directions)

Tissue Classification:

Fibrous joints

- dense connective, little movement
- types
 - a) Syndesmosis = interosseous ligament, amphiarthrotic
 - b) Suture = sutural ligament, synarthrotic
 - c) Gomphosis = periodontal ligament

Cartilaginous joints

- hyaline and fibrocartilage
- types
 - a) Synchondrosis = epiphyseal disk
 - b) Symphysis

Synovial joints

- most joints in body
- diarthrotic
- fluid filled capsule

Structure of a Synovial Joint

1. Joint Capsule (two layers)
 - a) Outer Dense Fibrous Connective (ligaments)
 - b) Inner *Synovial Membrane*
3. Articular Cartilage
4. Synovial Cavity and Synovial Fluid
5. Menisci
6. Bursa

Types of Synovial Joints:

- Ball and socket
- Condylloid
- Gliding
- Hinge
- Pivot
- Saddle

Types of Joint Movements:

- Flexion
- Extension
- Abduction
- Adduction
- Circumduction
- Rotation
- Supination
- Pronation

Other Movements:

- Hyperextension
- Dorsiflexion
- Plantar flexion
- Eversion
- Inversion
- Protraction
- Retraction
- Elevation
- Depression