

Ch. 8 : Joints

A synonym for "joint" is _____

The **structural** classifications of joints are. . .

1. _____ - bone ends are united by collagen fibers
2. _____ – bone ends are united by cartilage
3. _____ – bone ends are covered in cartilage & enclosed in a fluid-filled capsule lined w/ synovial membrane

→ These are summarized well on table 8.1, p. 252

The **functional** classifications of joints are. . .

1. _____ – immovable joints
2. _____ – slightly movable joints
3. _____ – freely movable joints

Types of Fibrous Joints (Fig. 8.1, p. 249)

- _____ – “seams” such as those found between the skull bones
- _____ – “ligamental” attachments such as those found between tibia and fibula
- _____ – “peg-in-socket” joints like periodontal ligaments holding teeth in place

Types of Cartilaginous Joints (Fig. 8.2, p. 250)

- _____ – bones united by hyaline cartilage; immovable (ex: epiphyseal plates)
- _____ – bones united by hyaline and fibrocartilage; slightly movable (ex: pubic symphysis)

Synovial Joints

- Are synovial joints *common* or *uncommon* in the body? (circle one)
- Are they *freely movable*, *slightly movable*, or *immovable*? (circle one)

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- **Six characteristics** of synovial joints:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

- Bursae and Tendon Sheaths – extra synovial padding

- **Stability** of Synovial Joints influenced by: . . .

- Articular surfaces
- Ligaments
- Muscle tone
- Elevation , depression
- Protraction, retraction
- Opposition

- **Movements** allowed by synovial joints include. . .

- Gliding
- Angular (Flexion and Extension)
- Abduction
- Adduction
- Circumduction
- Rotation
- Supination
- Pronation
- Dorsiflexion of foot
- Plantar flexion of foot
- Inversion of foot
- Eversion of foot

Types of Synovial Joints:

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

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Homeostatic Imbalances

Injuries

- Anterior Cruciate Ligament (ACL) and other “3C’s” Injuries to the knee (p.264)

- Temporomandibular Joint (TMJ) dislocation and disorders

- Cartilage Injuries (tears, usually in the menisci of the knees)

- Sprains

- Dislocations

Inflammatory and Degenerative Conditions

- Bursitis

- Tendonitis

- Arthritis
 - Osteoarthritis (OA)

 - Rheumatoid Arthritis (RA)

 - Gouty Arthritis

- Lyme Disease

Developmental Aspects of Joints

_____ : Joints form alongside bones (from mesenchyme)

_____ : Joints grow and strengthen along with bones and as a result of use

_____ : aside from injuries, joints change little

_____ : Onset of joint stiffening and osteoarthritis for
most people by their 70s

→ _____ throughout life can delay or prevent joint problems altogether

→ _____ promotes early onset of osteoarthritis

→ Which one is easier, *treatment* or *prevention* of joint problems? (circle one)