

Joints

I. Introduction to joints

A. Definition

B. Functions

II. Classification of joints

A. Functional classification

1. Synarthroses

2. Amphiarthroses

3. Diarthroses

B. Structural classification

1. Fibrous joints

2. Cartilaginous joints

3. Synovial joints

III. Fibrous joints

A. Sutures

1. Definition

2. Examples

B. Syndesmoses

1. Definition

2. Examples

C. Gomphoses

1. Definition

2. Example

IV. Cartilaginous joints

A. Synchrondroses

1. Definition

2. Examples

B. Symphyses

1. Definition

2. Examples

V. Synovial joints

A. Synovial joint structure

- 1. Articular cartilage**
- 2. Joint cavity**
- 3. Articular capsule**
 - a. Fibrous capsule**
 - b. Synovial membrane**
- 4. Synovial fluid**
- 5. Reinforcing ligaments**
- 6. Articular discs**

B. Synovial joint movements

- 1. Gliding movements**
 - a. Definition**
 - b. Examples**
- 2. Angular movements**
 - a. Flexion, extension, and hyperextension**
 - i. Definitions**
 - ii. Examples**
 - b. Dorsiflexion and plantar flexion**
 - i. Definitions**
 - ii. Examples**
 - c. Abduction and adduction**
 - i. Definitions**
 - ii. Examples**
 - d. Circumduction**
 - i. Definition**
 - ii. Examples**
- 3. Rotation**
 - a. Definition**
 - b. Examples**

4. Other movements

a. Supination and pronation

i. Definitions

ii. Examples

b. Inversion and eversion

i. Definitions

ii. Examples

c. Protraction and retraction

i. Definitions

ii. Examples

d. Elevation and depression

i. Definitions

ii. Examples

e. Opposition

i. Definition

ii. Examples

C. Range of motion of synovial joints

1. Nonaxial movement

2. Uniaxial movement

3. Biaxial movement

4. Multiaxial movement

D. Types of synovial joints

1. Plane joints

a. Definition

b. Examples

2. Hinge joints

a. Definition

b. Examples

3. Pivot joints

a. Definition

b. Examples

4. Condylloid joints

a. Definition

b. Examples

5. Saddle joints

a. Definition

b. Examples

6. Ball-and-socket joints

a. Definition

b. Examples

E. Major synovial joints

1. Temporomandibular joint

a. Bones involved

b. Description

c. Reinforcing ligament

i. Lateral ligament

2. Glenohumeral joint

a. Bones involved

b. Description

c. Reinforcing ligaments

i. Glenohumeral ligaments

ii. Coracoacromial ligament

iii. Coracohumeral ligament

3. Elbow joint

a. Bones involved

b. Description

c. Reinforcing ligaments

i. Anular ligament

ii. Radial collateral ligament

iii. Ulnar collateral ligament

4. Coxal joint

- a. Bones involved**
- b. Description**
- c. Reinforcing ligaments**
 - i. Iliofemoral ligament**
 - ii. Ischiofemoral ligament**
 - iii. Pubofemoral ligament**
 - iv. Ligamentum teres**

5. Knee joint

- a. Bones involved**
- b. Description**
- c. Reinforcing ligaments**
 - i. Patellar ligament**
 - ii. Fibular and tibial collateral ligaments**
 - iii. Anterior and posterior cruciate ligaments**

VI. Review of joints