

Chapter 8: Articulations and Movement

I. Naming Joints

A. Explain three different ways joints are named:

1. _____
2. _____
3. _____

II. Classes of Joints

A. The structural classification of joints is based on:

1. The major type of _____ that _____
2. Presence or absence of a _____

B. The functional classification of joints is based on the degree of _____

1. Synarthrosis means _____
2. Amphiarthrosis means _____
3. Diarthrosis means _____

C. Fibrous Joints

1. The two bones are united by _____
2. They have _____ cavity
3. They exhibit _____ movement
4. Sutures
 - a. What are sutures? _____
 - b. The tissue between the two bones is _____
 - c. What is a sutural ligament composed of? _____
 - d. What are fontanelles? _____
 1. Fontanelles make _____ & _____
 - e. What forms a synostosis? _____
5. Syndesmosis
 - a. The bones are _____ than in a suture
 - b. The bones are joined by _____
 - c. How much movement occurs at a syndesmosis? _____

6. Gomphosis

- a. Consist of _____ that fit into _____ and are held in place by _____
- b. Where would you find a gomphosis? _____
- c. What is a periodontal ligament? _____

D. Cartilaginous Joints

1. Synchondroses

- a. What holds the two bones together? _____
- b. How much movement occurs at a synchondrosis? _____
- c. Give an example of a synchondrosis? _____

2. Symphyses

- a. What holds the two bones together? _____
- b. How much movement occurs at a symphysis? _____
- c. Give an example of a symphysis? _____

E. Synovial Joints

- 1. Have a cavity that contains _____
- 2. How much movement occurs at a synovial joint? _____
- 3. The articulating surfaces of bones is covered with _____
 - a. This provides _____
- 4. Some joints contain fibrocartilage _____
 - a. These provide _____ & _____ to the joint
- 5. What is the joint capsule? _____
 - a. The outer layer of the joint capsule is called _____
 - 1. This layer is composed of _____
 - 2. This layer is continuous with _____
 - b. The inner layer of the joint capsule is called _____
 - 1. Describe the composition of this layer _____
 - 2. This layer produces _____
- 6. Synovial fluid is a mixture of _____, _____, _____, & _____
- 7. What is the major polysaccharide in synovial fluid? _____

- a. It provides _____
- 8. What is a bursa? _____
 - a. Functionally bursa _____
 - b. How is bursitis related to bursa? _____

F. Types of Synovial Joints

1. Define the following terms related to movement occurring at joints:
 - a. Monoaxial _____
 - b. Biaxial _____
 - c. Multiaxial _____
2. Describe the articular surfaces at a gliding joint: _____
 - a. What movement is allowed at a gliding joint? _____
3. Describe the articular surfaces at a saddle joint: _____
 - a. What movement is allowed at a saddle joint? _____
4. Describe the articular surfaces at a hinge joint: _____
 - a. What movement is allowed at a hinge joint? _____
5. Describe the articular surfaces at a pivot joint: _____
 - a. What movement is allowed at a pivot joint? _____
6. Describe the articular surfaces at a ball-and-socket joint: _____
 - a. What movement is allowed at a ball-and-socket joint? _____
7. Describe the articular surfaces at an ellipsoid joint: _____
 - a. What movement is allowed at an ellipsoid joint? _____

III. Types of Movement

A. Gliding Movements

1. This movement occurs at _____ joints

2. Describe the movement _____

B. Angular Movements

1. Flexion and Extension

- a. What direction does flexion move a body part? _____
- b. What direction does extension move a body part? _____
- c. What body part is an exception to these definitions? _____
 1. Define flexion and extension for this structure _____
- d. Describe foot movement in plantar flexion _____
- e. Describe foot movement in dorsiflexion _____

2. Abduction and Adduction

- a. Abduction is _____
- b. Adduction is _____
- c. Describe abduction of the fingers _____
- d. Describe adduction of the fingers _____
- e. What is lateral flexion? _____

C. Circular Movements

1. Rotation

- a. Describe rotation _____

2. Pronation and Supination

- a. Refer to unique rotation of _____
- b. Describe pronation _____
- c. Describe supination _____
- d. During which movement does the radius and ulna cross? _____

3. Circumduction

- a. Is a combination of _____, _____, _____, & _____
- b. Describe circumduction _____

D. Special Movements

1. Elevation and Depression

- a. Elevation moves _____
- b. Depression moves _____

2. Protraction and Retraction
 - a. Protraction moves _____
 - b. Retraction moves _____
3. Excursion
 - a. Describe lateral excursion _____
 - b. Describe medial excursion _____
4. Opposition and Reposition
 - a. Describe opposition _____
 - b. What is reposition? _____
5. Inversion and Eversion
 - a. Describe inversion _____
 - b. Describe eversion _____

E. Range of Motion

1. What is active range of motion? _____

2. What is passive range of motion? _____

3. The range of motion at a given joint is influenced by:
 - a. Shape of _____
 - b. Amount and shape _____
 - c. Strength and location _____
 - d. Strength and location _____
 - e. Amount of _____
 - f. Amount of _____
 - g. Amount of _____

IV. Description of Selected Joints

A. Temporomandibular Joint (TMJ)

1. This is a joint between the _____ & _____
2. What is located between the 2 bones? _____
3. The joint is strengthened by _____ & _____ ligaments

4. The joint is a combination _____ & _____ joint
5. Describe the motions allowed at this joint _____

B. Shoulder Joint

1. This is a _____ joint
2. The rounded _____ articulates with _____
3. What is the glenoid labrum? _____
4. The stability of the joint is due to 3 sets of _____ & 4 _____
5. What is the rotator cuff? _____

C. Elbow Joint

1. What is the humeroulnar joint? _____
2. What is the humeroradial joint? _____
3. Movement at the elbow is limited by _____
4. The rotation of the radial head allows _____ & _____
5. List the three ligaments that reinforce this joint:
 - a. _____
 - b. _____
 - c. _____

D. Hip Joint

1. The _____ articulates with _____
2. What is the acetabular labrum? _____
3. What is the transverse acetabular ligament? _____
4. What does the iliofemoral ligament do? _____
5. What does the ligamentum teres do? _____

E. Knee Joint

1. Located between _____ & _____
2. The femur has 2 _____ & _____
3. The tibia is _____ & _____ with a _____
4. What are menisci and what do they do? _____

5. Describe the attachment of the 2 cruciate ligaments _____

- a. The anterior cruciate ligament prevents _____
- b. The posterior cruciate ligament prevents _____
6. The joint is also strengthened by:
 - a. _____ ligaments
 - b. _____ ligaments
 - c. _____ muscles

F. Ankle Joint and Arches of the Foot

1. What three bones articulate to form the ankle (talocrural) joint?
 - a. _____
 - b. _____
 - c. _____
2. What forms the lateral and medial margins of this joint? _____
3. Functionally the ligaments of the arch:
 - a. Hold _____
 - b. Provide _____

V. Effects of Aging on the Joints

- A. What causes thinning of articular cartilage? _____
- B. How is range of motion decreased?
 1. Ligaments and tendons _____
 2. Muscles _____
 3. General decrease in _____