

## Articulations - Joints

EQ: Compare and contrast the different types of joints.

- I. Functions
  - a. Hold the bones together
  - b. Create flexibility for movement to occur
  - c. Union Between Bones
    - i. Joints may be freely moveable or completely fixed
    - ii. They can also fall somewhere in between
- II. Joints Classified
  - a. Functionally
    - i. Immovable Joints (synarthroses)
      1. *arthrose=joint,*
      2. *syn=together - bone stuck together*
    - ii. Slightly Movable Joints (amphiarthroses)
      1. *amphi=both - in between immovable and freely movable*
    - iii. Freely Movable Joints (diarthroses)
      1. *dia=apart - bone apart, can move easily*
  - b. Structurally
    - i. fibrous joints
      1. No Joint Cavity
      2. Most are immovable with a few slightly movable
      3. 3 Subtypes
        - a. Sutures
        - b. Syndesmosis
        - c. gomphosis
    - ii. cartilaginous joints
      1. No Joint Cavity
      2. Bones are connected with each other by cartilage
    - iii. synovial joints
      1. Freely moveable
      2. A closed space or joint cavity between the bones
      3. Think the "knee" here as a good example
      4. Lubricated by synovial fluid
      5. 6 Major Types
        - a. Hinge
        - b. Pivot
        - c. Ball and socket
        - d. Condylod (Ellipsoidal)
        - e. Gliding
        - f. Saddle
      6. Bursae
        - a. are small sacs filled with synovial fluid that reduce friction in the joint.
        - b. lined with synovial membrane
        - c. The knee joint contains 13 bursae
  - III. Disorders
    - a. Ankle sprains and fractures
      - i. Type 1

- ii. Type 2
  - iii. Type 3
- b. Gouty Arthritis
  - i. Uric crystals build up in joints—pain
  - ii. Bones fuse
- c. Rheumatoid Arthritis
  - i. Autoimmune disorder
  - ii. Cartilage attacked
  - iii. Inflammation, swelling & pain
  - iv. Final step is fusion in joint
- d. Tendinitis
  - i. Tendons become inflamed
  - ii. Tendinitis literally means inflammation of the tendon.
  - iii. The most common cause of tendonitis is overuse.