

- ball and socket - triaxial (shoulder and hip)
- saddle- biaxial with no rotation (located between first metacarpal and trapezium)
- condyloid- biaxial (metacarpal)

10.) The Glenohumeral joint is a ball and socket joint, which is one type of synovial joint. This joint has a lot of mobility thus allowing us to have a great range of motion for plenty of activities. This joint has a shallow glenoid fossa; therefore, the joint capsule is very important to maintain the stability of this joint.

11.) Labrum is a fibrocartilage protector. It deepens the glenoid fossa and protects the joint with stability.

12.) The ligaments of this joint are the coracohumeral ligament and the glenohumeral (Z) ligament. This ligament has three sections that runs in different directions over this joint. There is the superior, middle and inferior. Lastly, the transverse humeral ligament.

- diarthrotic joints otherwise known as "freely movable joints" (i.e. knee, shoulder, etc.)

4. Fibrous joints are made up of fibrous connective tissue. Unlike synovial joints, there is no joint cavity present and overall the joint is immovable or slightly movable. A fibrous joint can be one of three types. These three types are as followed:

- sutures (located in the cranium)

- syndesmoses (located in the interosseous membrane)

- gomphoses (located in the placement of teeth)

5.) Cartilagenous joints are joints that are united by cartilage. Similar to fibrous joints, cartilagenous joints do not have a joint cavity and are labeled as immovable or slightly movable. The two types of cartilagenous joints are:

- synchondroses (located in the epiphyseal place of bone)

- symphyses (located in the pubic symphysis)

6.) Synovial joints are the most common joints in the body. They are highly movable and do consist of a synovial fluid filled joint cavity. Such features that make this joint unique and important include:

- articular cartilage to protect the bone

- a joint cavity surrounding the joint

- a joint capsule that contains two layers: a fibrous capsule and a synovial membrane

- synovial fluid in the synovial membrane

- ligaments that hold the joint capsule

- nerves and vessels that supply the capsule

7.) The two types of ligaments of a synovial joint are capsular and distinct. A capsular ligament is the thickening of the joint capsule. It is part of the capsule itself. On the contrary, a distinct ligament is not part of the joint capsule.

8.)

Meniscus: a fibrocartilagenous disc that protects a joint such as in the knee or shoulder.

Bursae: flattened bags of synovial fluid (resembles a fluid filled jelly bean) that prevents ligaments, muscle, skin, tendons, and bones from rubbing together and causing irritation and pain.

Tendon sheath: an elongated bursa that surrounds tendons

9.) Synovial Joints classified by shape:

- plane (facets or in between carpal bones)

- hinge- uniaxial- located in the phalanges

- pivot - long axis rotation of one bone on another (radial head on the ulna)

Review: Joints

Questions:

- 1.) Define "Joints."
- 2.) What are the three types of joints in regards to structure? Give an example of each.
- 3.) What are the three types of joints in regards to function? Give an example of each.
- 4.) Write your own description of fibrous joints. Include the three types and an example of each.
- 5.) Write your own description on cartilagenous joints. Include the two types and give an example of each.
- 6.) Write your own description of synovial joints. Try to list the six unique features of this type of joint.
- 7.) What are the two types of ligaments in a synovial joint? Describe both.
- 8.) Define or describe the following:
 - meniscus
 - bursae
 - tendon sheath
- 9.) List the synovial joints classified by their shape. Give a one word description of their movement and an example of one in the human body.
- 10.) Describe the glenohumeral joint.
- 11.) What is the labrum?
- 12.) What are the ligaments of the glenohumeral joint?

Answers:

- 1.) Joints are the structure that connects bone to bone or bone to cartilage.
- 2.) The three types of joints in regards to structure are:
 - fibrous joints (i.e the sutures of the skull_
 - cartilagenous joints (i.e the intervertebral disks of our vertebra)
 - synovial joints (i.e the knee or shoulder joint)
- 3.) The three types of joints in regards to function are:
 - synarthrotic joints otherwise known as "immovable joints" (i.e sutures of the skull)
 - amphiarthrotic joints otherwise known as "slightly moveable joints" (i.e intervertebral disks as well as the tibia-fibula joint).