

## Synovial Joints

Page 10-11 of the Course Manual

1

---

---

---

---

---

---

---

---

### Session Objectives

By the end of this presentation, you will be able to:

- Describe the structural features of a synovial joint
- Discuss the function of additional structures associated with synovial joints
- List the six types of synovial joints and give an example of each

2

---

---

---

---

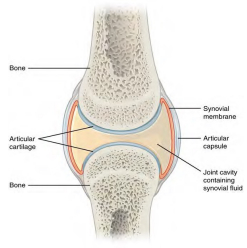
---

---

---

---

### Synovial Joints



- Synovial joints allow for smooth movements between the adjacent bones.
- The joint is surrounded by an articular capsule that defines a joint cavity filled with synovial fluid.
- The articulating surfaces of the bones are covered by a thin layer of articular cartilage.
- Ligaments support the joint by holding the bones together and resisting excess or abnormal joint motions.

3

---

---

---

---

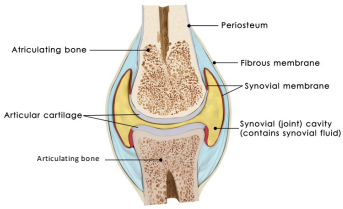
---

---

---

---

### Structural Features of Synovial Joints



- Friction between the bones at a synovial joint is prevented by the presence of the articular cartilage
- The cells of this membrane secrete synovial fluid (synovia = "a thick fluid").
- Ligaments allow for normal movements at a joint, but limit the range of these motions.

---

---

---

---

---

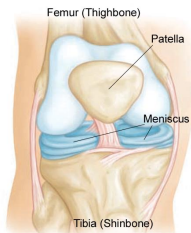
---

---

---

4

### Additional Structures Associated with Synovial Joints



- An articular disc, which is generally small and oval-shaped, or a meniscus, which is larger and C-shaped.
- the disc can provide shock absorption and cushioning between the bones, which is the function of each meniscus within the knee joint

---

---

---

---

---

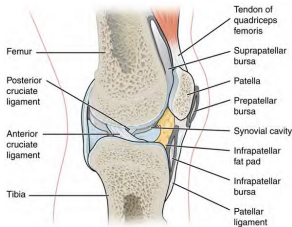
---

---

---

5

### Additional Structures Associated with Synovial Joints



- Bursae are fluid-filled sacs that serve to prevent friction between skin, muscle, or tendon and an underlying bone.
- Three major bursae and a fat pad are part of the complex joint that unites the femur and tibia of the leg.

---

---

---

---

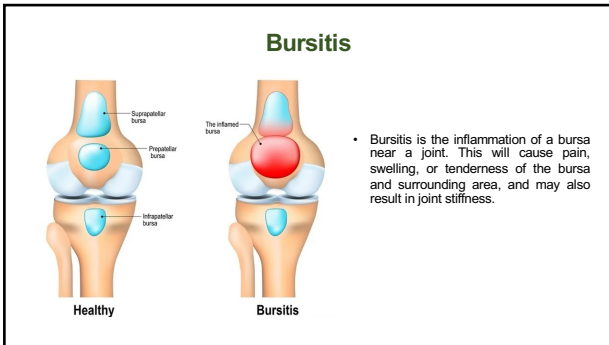
---

---

---

---

6



7

---

---

---

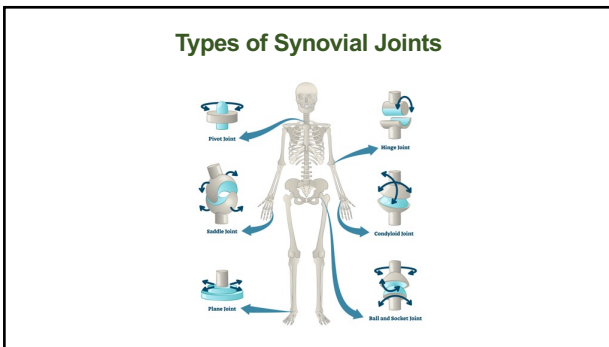
---

---

---

---

---



8

---

---

---

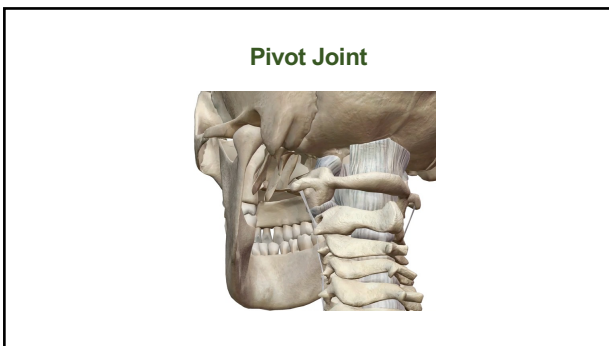
---

---

---

---

---



9

---

---

---

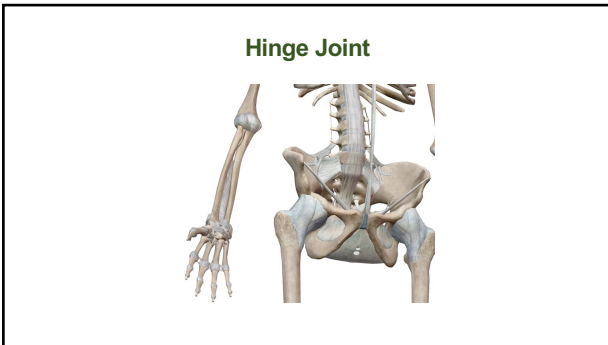
---

---

---

---

---



10

---

---

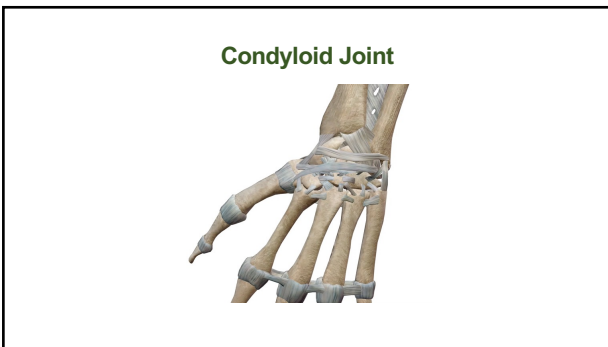
---

---

---

---

---



11

---

---

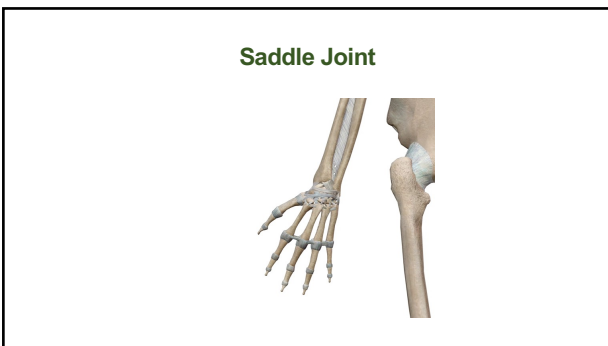
---

---

---

---

---



12

---

---

---

---

---

---

---

**Gliding/ Plane Joint**



13

---

---

---

---

---

---

---

---

**Ball-and-Socket Joint**



14

---

---

---

---

---

---

---

---

**End of Session**



15

---

---

---

---

---

---

---

---