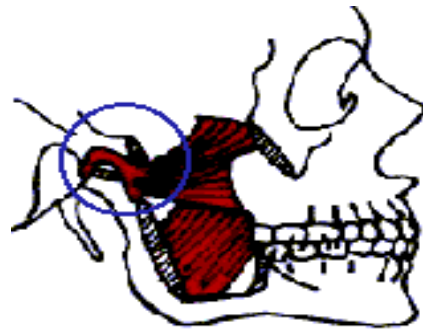


Articulations - Joints



EQ: How is the

Functions...

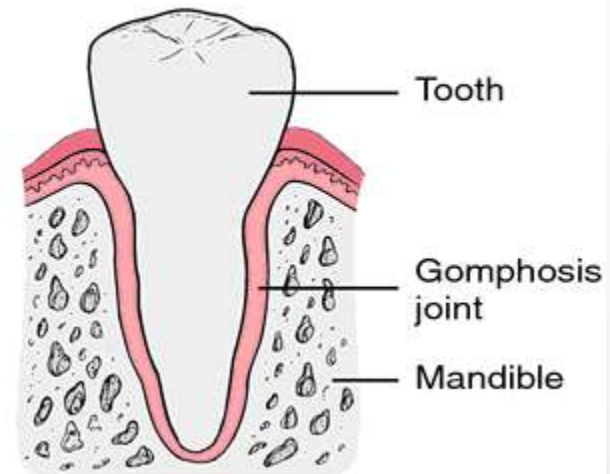
- Hold the bones together...
- Create flexibility for movement to occur



Union Between Bones



- Joints may be freely moveable or completely fixed
- They can also fall somewhere in between



Joints Classified

Functionally

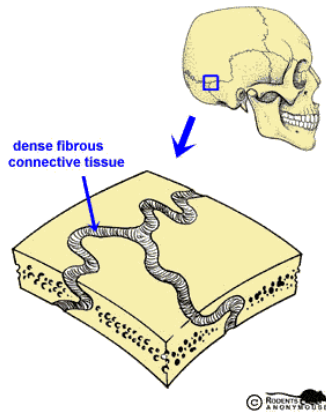
- **Immovable Joints** (synarthroses)
arthrose=joint,
syn=together - bone stuck together
- **Slightly Movable Joints** (amphiarthroses)
amphi=both - in between immovable
and freely movable
- **Freely Movable Joints** (diarthroses)
dia=apart - bone apart, can move easily

Joints Classified Structurally

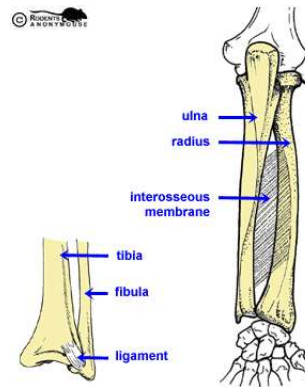
- fibrous joints
- cartilaginous joints
- synovial joints

Fibrous Joints

- No Joint Cavity
- Most are immovable with a few slightly movable
- 3 Subtypes
 1. Sutures
 2. Syndesmosis
 3. gomphosis



*Sutures – immovable



*Syndesmosis – little movement



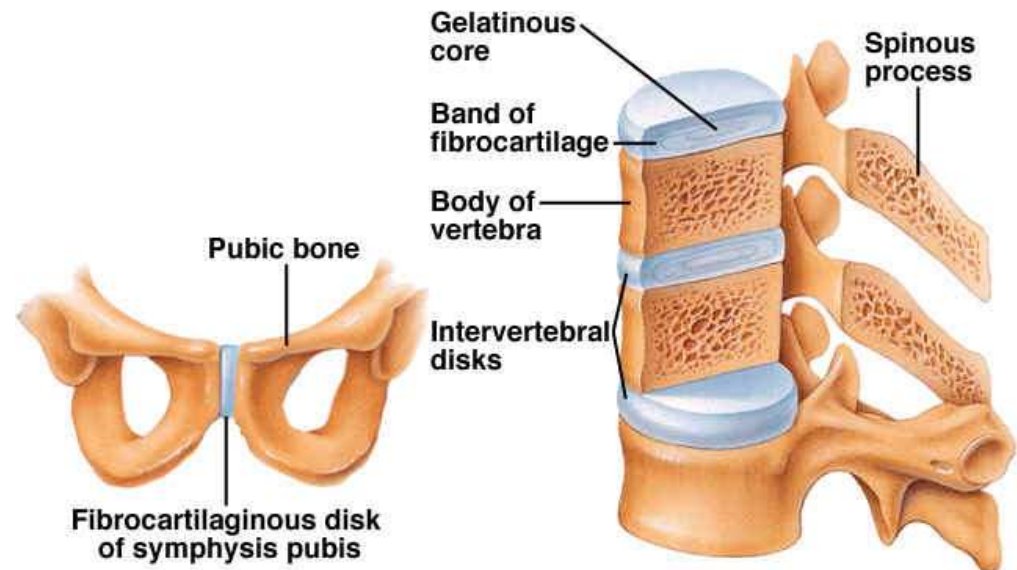
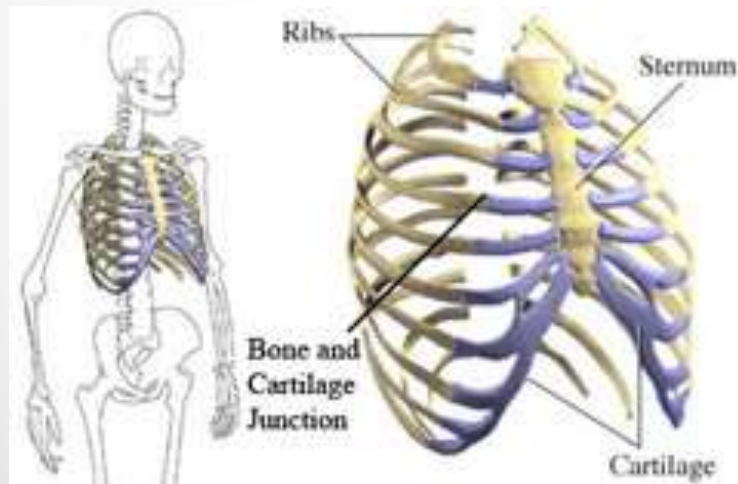
*Gomphosis - immovable

Cartilaginous Joints

- No Joint Cavity
- Bones are connected with each other by cartilage

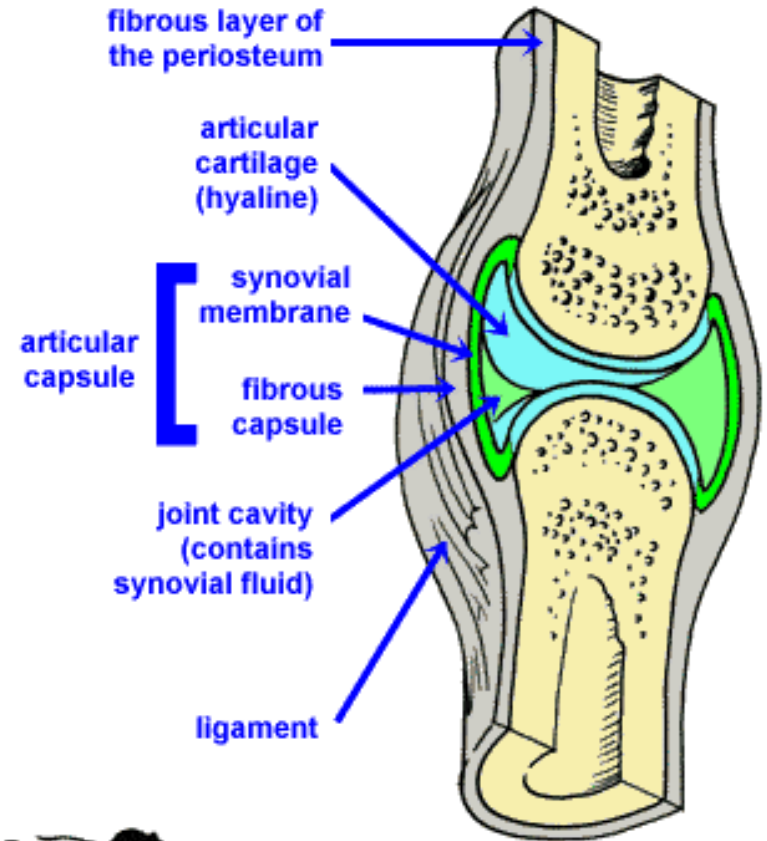
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Cartilaginous Joint — Symphysis



Synovial Joints

- Freely moveable
- A closed space or joint cavity between the bones
- Think the “knee” here as a good example
- Lubricated by **synovial fluid**



6 Major Types...

1. Hinge

2. Pivot

3. Ball and socket

hinge joint



pivot joint



ball-and-socket joint



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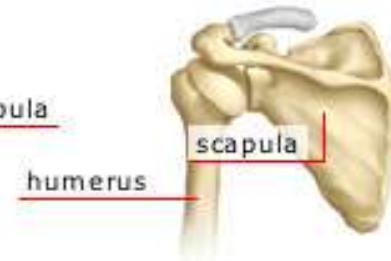
elbow



leg



shoulder



6 Major Types...

4. **Condyloid
(Ellipsoidal)**

condyloid joint



gliding joint



saddle joint



5. **Gliding**

+ wrist

www.visualdictionaryonline.com

+ tarsus

+ thumb

6. **Saddle**



radius +

lunate +

scaphoid +

+ 2nd cuneiform

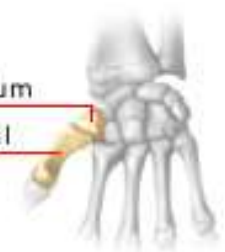


navicular +

1st cuneiform +

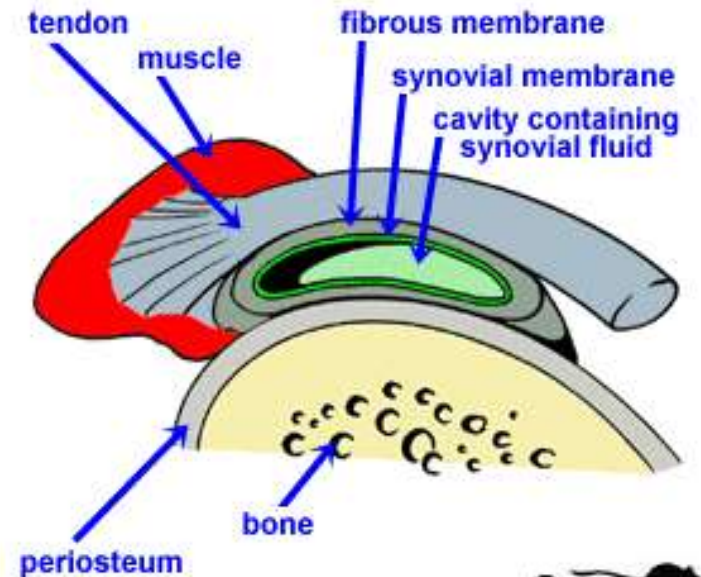
+ trapezium

+ metacarpal



Bursae

- are small sacs filled with synovial fluid that reduce friction in the joint.
- lined with synovial membrane
- The knee joint contains 13 bursae

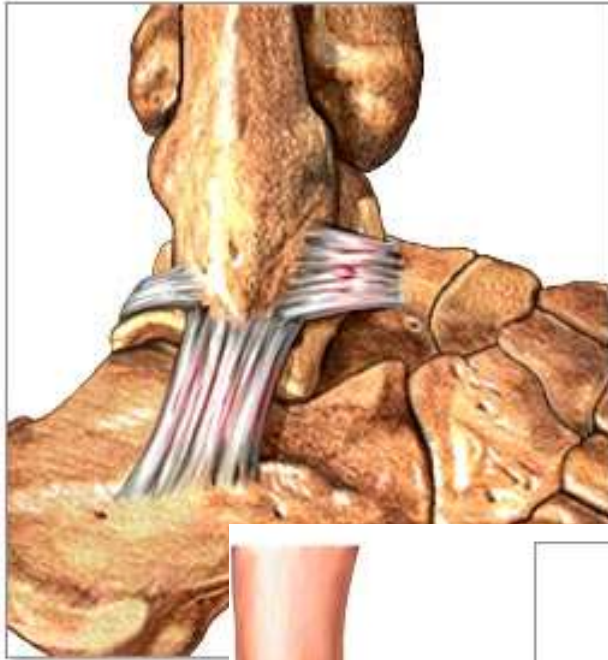


Disorders...

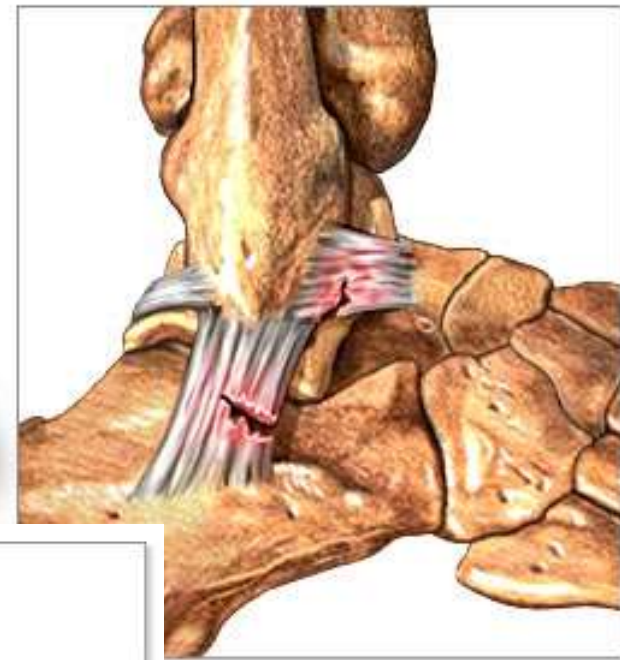
- Ankle sprains and fractures
- Gouty Arthritis
- Rheumatoid Arthritis
- Tendinitis

Ankle Sprain Type 1

Ankle Sprain Type 2



Type I Sprain
• ligaments stretched



ADAM.

Ankle Sprain Type 3

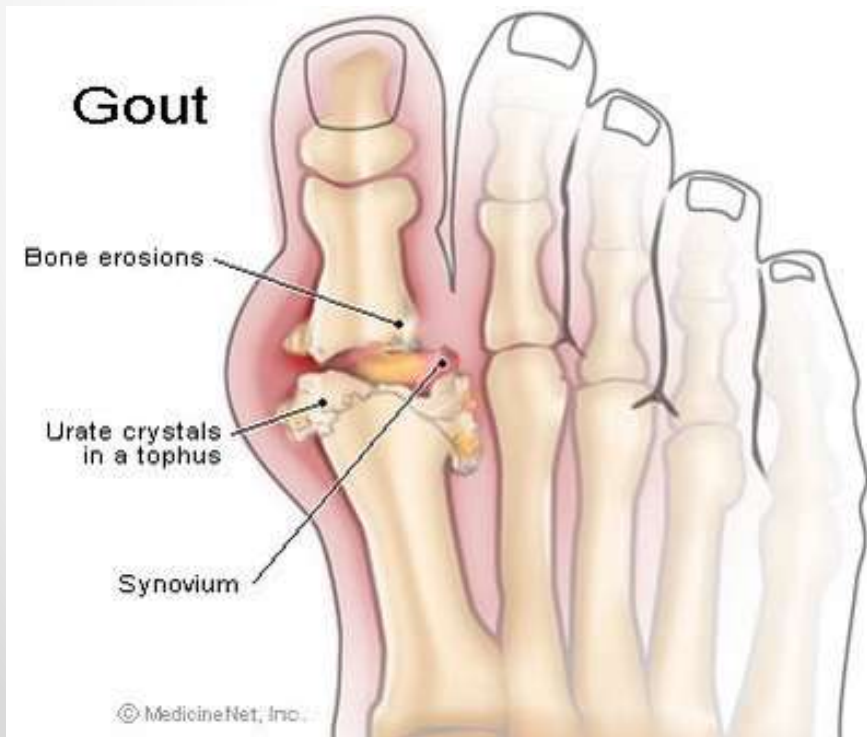


Type III Sprain
• ligaments torn completely

ADAM.

Gouty Arthritis

- Uric crystals build up in joints—pain
- Bones fuse

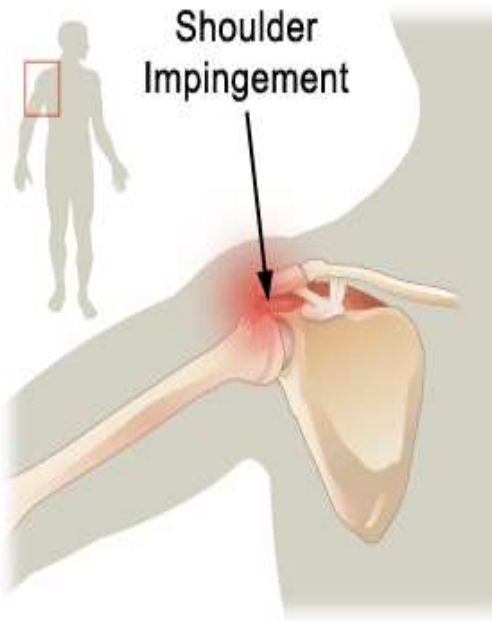


Rheumatoid Arthritis

- Autoimmune disorder
- Cartilage attacked
- Inflammation, swelling & pain
- Final step is fusion in joint



Tendonitis



Inflammation of
Achilles Tendon



- Tendons become
- **Tendonitis** literally means inflammation of the tendon.
- The most common cause of tendonitis is overuse.