Elbow Exam 101

- Visual Inspection
- Palpation
- Motion
- Motor Exam
- Sensory Exam
- Special Tests...

Ulnar Nerve Entrapment at the Elbow (Cubital Tunnel Syndrome)
- Abnormal sensation in the ring and small fingers
- +/- grip or pinch weakness
- Tinel’s sign over ulnar nerve at elbow
- Elbow flexion test (>90 degrees flexion=nerve sx ulnar distribution hand)

Severe Cubital Tunnel Syndrome – Good Virtual Visit Diagnosis
- Atrophy of interossei/hypothenar eminence
- Positive Froment’s test
- Wartenberg sign
- Clawing of ring and small fingers

Subluxing Ulnar Nerve – Good Virtual Visit Diagnosis
- Palpable and sometimes visible anterior subluxation of the ulnar nerve in flexion
- Can be normal variant

Distal Biceps Rupture – Good Virtual Visit Diagnosis
- Partial vs full
- “Popeye” deformity
- Ecchymosis
- Hook test
- May have elbow flexion weakness/pain
- Supination weakness/pain
- Urgent referral for acute full tear

Olecranon Bursitis – Good Virtual Visit Diagnosis
- Swollen/boggy olecranon bursa
- Often tender to palpation
- If red and hot, may be septic bursitis
- Treatment usually non-surgical
Physical Examination of the Elbow

Lateral Epicondylitis – Good Virtual Visit Diagnosis

- “Tennis elbow”
- Tenderness over ECRB tendon insertion - (few mm distal to lateral epicondyle)
- Pain with resisted wrist extension – worsened with elbow held extended
- Decreased grip strength – worse with elbow extended

Radial Tunnel/PIN Syndrome

- Tenderness 3-5 cm distal to lateral epicondyle (much more distal than epicondylitis).
- Resisted long finger extension can reproduce pain
- Resisted supination can reproduce pain
- No motor or sensory involvement
- Uncommon

Medial Epicondylitis

- “Golfer’s elbow”
- Tenderness just distal and anterior to tendon insertion on medial epicondyle
- Pain with resisted forearm pronation and wrist flexion

Triceps Rupture

- Often present with painful pop after resisted extension
- Pain, swelling, ecchymosis over elbow
- May have palpable defect
- Inability to extend elbow against resistance (sometimes)
- Xrays may show avulsion (snowflake sign), MRI if unsure
- Refer to ortho if high suspicion for acute tear

OCD of the Elbow

- Often occurs in adolescents - gymnasts and throwers
- Cartilage/bone separates off capitellum
- Lateral elbow tenderness
- Mild loss of extension
- May have crepitus with motion
- May have elbow effusion
- Get xray if suspicious
Physical Examination of the Elbow

Elbow Arthritis
- Progressive elbow pain
- Loss of terminal extension +/- flexion
- Painful locking/catching
- May have diffuse elbow tenderness
- May have elbow effusion

Ligament Injury – MCL Tear
- Medial (ulnar) collateral ligament tear
- Can be acute or due to overuse (overhead athletes)
- Tenderness over medial elbow around MCL origin
- **Valgus stress test** – with elbow held at 30 degrees, apply valgus stress
- **Moving valgus stress test** – 100% sensitive, 75% specific

Ligament Injury – LCL Tear
- Most commonly due to elbow dislocation
- Can cause PLRI – radial head subluxes or dislocates
- Lateral elbow tenderness over LCL insertion
- **Varus stress test** with elbow at 30 degrees
- **Chair rise test:** Pain or clicking/catching with push off from chair

Ligament Injury – Nursemaid’s
- Subluxation of the annular ligament
- Pain and tenderness over lateral elbow
- Elbow held in slight flexion and pronation
- Patient often refuses to move it
- Reduction can often by done by PCP
- Make sure you have correct diagnosis...not a fracture!

Elbow Fracture
- Elbow swelling, tenderness and limited range of motion after an injury
- Get an xray if suspicious
- Know fat pad sign – lucency on posterior elbow on lateral xray is highly suggestive of fracture