

Tendon Injuries

Extensor Tendon Hand Injuries

- Determine position of hand during injury
- Complete hand exam
 - Must assess strength against resistance
- Hand divided into zones 1-8 for injury patterns
 - Zone 7-8: Wrist and Forearm
 - Hand surgery repair in one week
 - Zone 6: metacarpals
 - *May repair in ED if distal to juncture tendinae*
 - Zone 5: MCP joint
 - **“Fight bite” until proven otherwise**
 - Admit for IV antibiotics
 - Delayed closure in 5-10 days when passive ROM restored
 - No bite confirmed
 - Skin closure w/ hand surgery f/u in 1-2 days
 - *May repair in ED if no joint involvement or fracture*
 - Zone 4: proximal phalanx
 - High rate of complication
 - *Contact hand surgery for possible repair of lateral band in ED*
 - Central slip lacerations usually repaired by hand surgery
 - Primary or delayed repair
 - Zone 3: PIP joint
 - Frequently missed injuries
 - Central slip rupture causes boutonniere deformity
 - High rate of complications
 - Hand surgery repair
 - Zone 1-2: DIP and middle phalanx
 - Mallet finger deformity
 - **May progress to swan neck deformity if not diagnosed or treated!**
 - *Possible repair in ED*

Flexor Tendon Hand Injuries

- More difficult to diagnose and treat
- Also divided into zones
- No ED repair

Biceps Tendon Rupture

- Proximal tendon ruptures most common
- Usually occurs in older individuals with previous shoulder problems
- Loss of strength may be minimal due to brachialis and supinators

Quadriceps Tendon Rupture and Patellar Tendon Rupture

- Spontaneous or secondary to steroid injections, metabolic d/o, previous surgical procedures, FQ use
- Quadriceps
 - more common
 - >40 yo
 - Patella baja
- Patellar
 - Less common
 - <40 yo
 - Patella alata
- Difficult diagnosis
 - **Loss of active extension of the knee or inability to maintain the knee passively extended against gravity indicates a complete rupture**
 - Include contralateral leg in imaging for comparison
 - Needle technique may aid diagnosis
- Immediate surgical repair to prevent adhesions

Achilles Rupture

- 30-50 yo with no previous tendinopathy is most common
- Thompson test aids in diagnosis
- Posterior splint with orthopedic referral
- Surgical repair vs. conservative casting