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## **Non-operative Rehabilitation Protocol for Elbow UCL Injury**

**NOTE:** Rest from throwing typically lasts from 6 – 12 weeks

### **INITIAL PHASE:**

#### **If elbow is painful:**

- Rest of the elbow from valgus (throwing motion) forces
- PO NSAID medication PRN
- Ice 10 minutes 4 times per day
- If pain is in elbow during the day, use of elbow brace is recommended within a non-painful arc of motion. Resting splint may also be used
- Can perform isometric exercise of the shoulder, elbow, hand within pain free level to prevent muscle atrophy.

#### **Once elbow pain resolves:**

- Begin to progress with gentle ROM of the elbow without causing pain
- Can begin rhythmic stabilization exercises of the upper extremity
- Once elbow motion improves and elbow not painful, progress to elbow isotonic / eccentric strengthening of the medial elbow stabilizers with emphasis on pronator teres, FCU, FDS. Should be done within non-painful range.

#### **Overall Conditioning:**

- Start shoulder isometrics – AVOID shoulder strengthening that causes valgus load on the elbow. If patient has pain with internal rotation – use of brace may help. Be sure to include scapula/posture. Begin to address any scapular dyskinesis.
- Start core and lower extremity strengthening as tolerated. Avoid use of heavy weights through the injured elbow/arm.
- Start stretching/flexibility training of shoulder (avoid valgus stress), lower extremity (emphasize hips) and core.

### **INTERMEDIATE PHASE: No sooner than 6 weeks**

- Start shoulder isotonic exercises, again avoiding valgus stress. Be sure to include scapula/posture. Address any scapular dyskinesis and rotation deficits.
- Start “Thrower’s Ten” isotonic strengthening program as described by Wilk K, Reinold M, and Andrews J. Clin Sport Med. 2004
  - Rehabilitation of the Thrower’s Elbow. Wilk KE, Reinold MM, Andrews JR. Clin Sports Med. 2004 Oct;23(4):765-801

- Progress with trunk and lower extremity strengthening, flexibility, dynamic stability
- Slowly initiate plyometrics not involving the elbow
- Progress with dynamic stability of the upper extremity
- Can begin to work on throwing mechanics but should be done slowly and without any rapid/fast motion.

**ADVANCED PHASE: Typically week 7 - 12**

Ok to advance to this phase once, symmetrical / maximum motion achieved, no elbow pain with intermediate phase.

- Start plyometric throwing drills
- Progress with upper and lower extremity strengthening

**RETURN TO THROWING/ACTIVITY:**

Ok to advance to this phase with non-painful ROM, able to complete Advanced Phase without pain, demonstrates good dynamic stability, and satisfactory clinical exam.

- Initiate interval throwing program

Adapted from:

Wilk et al Clin Sports Med 2004

Patel et al Orthop Clin N Am 2014

Rettig et al AJSM 2001