

## **Physical Therapy Protocol: Nonoperative Treatment of High Grade UCL Sprain**

### **Phase 1: Weeks 0 through 4 – Pain Control and Motion Recovery**

**Physician Goals:** Decrease pain and inflammation, regain normal range of motion, protect medial elbow, strengthen posterior superior rotator cuff and wrist flexor/pronator

**Exercises:** Passive elbow flexion/extension and forearm pronation/supination stretching with goal of painless normal motion, posterior inferior shoulder capsule stretching (sleeper + cross body), periscapular stabilizer strengthening, infraspinatus strengthening, supraspinatus strengthening with palm facing floor, grip strength, wrist flexor/extensor strengthening; no elbow valgus stress (resisted IR, chest flies, planks with hands on ground, etc), aggressive core and lower body strengthening, OK for lower body cardio

**Comments:** Hinged elbow brace worn at all times for first 6 weeks except for hygiene, unlocked.

**Total Visits:** 8 – Once to twice per week with home stretching and strengthening 3-4x per week

### **Phase 2: Weeks 4 through 8 – Early Strength Recovery + Elbow Protection**

**Physician Goals:** Continue to emphasize shoulder mobility, strengthening the entire kinetic chain, gradually increase whole body strength in anticipation of throwing program beginning at 3 months

**Exercises:** Continue working on grip strength, scapular stabilizers, wrist extension/flexion strength, serratus anterior strengthening with prone serratus punches, add weights as tolerated; start blood flow restriction (BFR) with 50% arterial occlusion pressure 30-15-15-15 rep scheme with 60s rest, 20-30% contralateral arm 1 rep max, wrist flexion, wrist ulnar deviation, finger flexion, forearm pronation, eccentric forearm pronation

**Comments:** Discontinue hinged elbow brace after week 6

**Total Visits:** 8 – One to two times per week strengthening 4x per week including PT

### **Phase 3: Weeks 8 through 12 – Strength Recovery, Preparing to Throw**

**Physician Goals:** Begin upper body plyometric program and start throwing program at the end of phase 3 (at least 12 weeks from injury) as long as elbow motion is full, no pain with plyometrics, negative milking maneuver and moving valgus stress test

**Exercises:** Continue strengthening scapular stabilizers, body blade, kinetic chain strengthening, shoulder capsule stretching, continue BFR with phase 2 protocol, resisted shoulder internal rotation, 2 hand chest level plyometrics, transition to one hand and advance to 90°/90° position as tolerated, NIMSAT ARM care program or Advance Throwers Ten (see website for PDF)

**Comments:** Throwing program begins at the END of phase 3 (13+ weeks from beginning of PT protocol)

**Total Visits:** 8 – One to two times per week with strengthening 4x per week including PT