

Conservative Treatment Following Ulnar Collateral Ligament Sprains Of the Elbow

Phase I Immediate Motion Phase

Post-Injury days 0 - 7

Goals

1. Increase ROM
2. Promote healing of ulnar collateral ligament
3. Retard muscular atrophy
4. Decrease pain and inflammation
5. 1 week post-injury initiate cardiovascular conditioning program with modifications for injury per the Cleveland Indians Physical Development Program (start at Week 1 in manual)

Activities

1. Brace (optional) - non-painful ROM (20 → 90 degrees)
2. AAROM, PROM elbow, wrist and shoulder (non-painful ROM and no shoulder ER stretching)
3. Initiate Isometrics - wrist and elbow musculature, gripping exercises
4. Ice, compression
5. Initiate shoulder strengthening (**no internal rotation**)
 - CAUTION: avoid stressing medial elbow

Phase II Intermediate Phase

Post-Injury Weeks 2 - 4

Goals

1. Increase ROM
2. Improve strength and endurance
3. Decrease pain and inflammation
4. Promote stability
5. 2 weeks post-injury initiate upper/lower body strength program with modifications for injury per the Cleveland Indians Physical Development Program (start at Week 1 in manual)

Criteria to Progress to Phase II

1. No Swelling
2. Acute pain is diminished

Activities

1. ROM exercises - gradual increase in motion (0 → 135 degrees)
 - 5 degrees of extension, 10 degrees of flexion
2. Initiate isotonic exercises
 - wrist curls
 - wrist extension
 - pronation/supination
 - biceps/triceps
3. Advance shoulder strengthening
 - external rotation
 - internal rotation (Week 3)
 - supraspinatus
4. Ice, compression

Phase III Advanced Strengthening phase

Post-Injury Weeks 5 - 6

Criteria to progress to Phase III

1. Full AROM
2. No pain or tenderness
3. No increase in laxity
4. Strength 4/5 in the elbow flexors/extensors

Goals

1. Increase strength, power, and endurance
2. Improve neuromuscular control
3. Prepare athlete for gradual return to functional activities
4. Prepare athlete to begin to throw

Activities

1. Initiate PNF
2. Initiate isokinetics
3. Initiate Thrower's Ten to include 90/90 shoulder work
4. Initiate plyometrics
 - to include trunk rotation, and Plyoball with mini tramp

Phase IV Return to Activity Phase

7 - 10 Weeks post-injury

Criteria to progress to return to throwing

1. Full, non-painful ROM
2. No increase in laxity
3. Isokinetic test fulfills following criteria
 - pronation: 20% greater than non-dominant side
 - flexion : 15% greater than non-dominant side
 - extension: 5% greater than non-dominant side
4. Satisfactory clinic exam, Physician's approval
5. 2 successful weeks of pain-free plyometric / 90 - 90 shoulder work

Activities

1. Initiate Interval Throwing Program (ITP)
 - 6-8 weeks post-injury (check date on which week to throw)
2. Continue Thrower's Ten program
3. Continue plyometric progression
4. Initiate hitting progression program after successfully completing 90 foot phase of (ITP)

5. Continue all exercises in Phase III
 - Throw and train on the same day
 - ITP first, followed by rehab exercises, then strength/conditioning program
 - Lower extremity and ROM on opposite days
6. Emphasize elbow and wrist strengthening and flexibility exercises
7. Continue with strengthening program