

# Non-Operative UCL Elbow Treatment Protocol

**Daniel Sutton, MD**

Sports Medicine Specialist

danielsuttonmd.com

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## Purpose & Philosophy

This protocol outlines a structured, non-operative approach to ulnar collateral ligament (UCL) injuries of the elbow. Non-operative treatment is appropriate for many partial tears and sprains and is an active process focused on tissue healing, progressive loading, and safe return to sport. Timelines serve as guidelines; progression is symptom- and performance-based.

## Appropriate Candidates

Partial UCL tears or sprains with preserved valgus stability, absence of complete rupture, and athletes willing to adhere to rehabilitation and throwing restrictions. Platelet-rich plasma (PRP) may be considered as an adjunct in select cases.

## Phase 1: Protection & Early Healing (Weeks 0–3)

Goals include protecting the healing ligament, controlling pain and inflammation, and maintaining overall conditioning. Athletes avoid throwing and valgus stress. Elbow range of motion is allowed as tolerated. Rehabilitation focuses on wrist flexor–pronator isometrics, scapular stabilization, rotator cuff activation, and core and lower-body strength. Pain control includes acetaminophen and ice; NSAIDs are generally avoided, particularly following PRP.

## Phase 2: Strength Restoration & Load Tolerance (Weeks 3–6)

Goals include restoring elbow and forearm strength, improving dynamic valgus control, and normalizing kinetic chain mechanics. Progressive concentric and eccentric wrist flexor–pronator strengthening, elbow flexion and extension, shoulder endurance, scapular control, trunk rotation, and hip strength are emphasized. Throwing remains restricted.

## Phase 3: Advanced Strengthening & Throwing Preparation (Weeks 6–10)

The focus shifts to preparing the elbow for throwing-specific stresses. Advanced forearm strengthening, plyometric drills, perturbation training, and sport-specific movement patterns are introduced. A flat-ground interval throwing program may begin once the athlete is pain-free with daily activities and strengthening.

## Phase 4: Interval Throwing & Sport Integration (Weeks 10–16+)

A structured interval throwing program is followed, with gradual increases in distance, velocity, and volume. Progression is symptom-guided rather than time-driven. Mound work or positional throws are added only after successful completion of flat-ground progression.

### Return-to-Play Criteria

Athletes must demonstrate full, pain-free elbow range of motion; symmetric forearm, shoulder, and scapular strength; tolerance of full throwing workload without pain or instability; and confidence under sport-specific demands.

### Failure of Non-Operative Treatment

Persistent pain, recurrent symptoms during throwing progression, or inability to tolerate sport demands may indicate failure of non-operative care and should prompt discussion of surgical options.

### Key Principles

Non-operative UCL management is not passive rest. Success depends on disciplined rehabilitation, attention to mechanics, gradual workload progression, and open communication between athlete, therapist, and physician.

### Key References

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