



Non-Operative Treatment of Ulnar Collateral Ligament Sprains of the Elbow

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- Phase I – Immediate Motion Phase
 - Goals
 - Re-establish non-painful ROM
 - Decrease pain and inflammation
 - Prevent muscular inhibition
 - Promote healing of UCL
 - Cryotherapy for pain/inflammation
 - Ice 15-20 minutes every hour
 - Brace
 - Dr. Hess discretion
 - ROM
 - Progress as tolerated
 - Non-painful ROM only
 - Isometrics- wrist and elbow
 - Shoulder strengthening (No IR strengthening due to stress on UCL)
 - Precautions
 - No heavy lifting
 - No jerky movements

- Phase II – Intermediate Phase
 - Goals
 - Regain and improve muscular strength
 - Normalize kinematics
 - Gradually restore full PROM
 - Decrease pain and inflammation
 - Criteria to progress to Phase II
 - Full ROM
 - Minimal pain/tenderness
 - Good MMT strength

- Continue use of ice as needed
- May use heat prior to ROM exercises
- ROM
 - Progress gradually to full PROM
- Use of modalities as needed
- Initiate isotonic exercises

- Phase III – Dynamic Strengthening Phase

- Goals
 - Improve strength/power/endurance
 - Improve neuromuscular control
 - Gradual return to functional activities
- Criteria to progress to Phase III
 - Full, non-painful ROM
 - No pain/tenderness
 - Strength 70% or better of contralateral side
- Eccentric exercises
- Continue dynamic stabilization
- Progress strengthening exercises
- Thrower's Ten program

- Phase IV – Return to Activity Phase

- Goals
 - Progressively increase activities to prepare for full functional return
- Criteria to progress to throwing
 - Full non-painful ROM
 - No pain/tenderness
 - Satisfactory clinical exam
- Initiate interval program
- Continue plyometrics
- Gradual return to recreational sports activities

EXERCISES INCLUDED IN THE THROWERS TEN EXERCISE PROGRAM

- Diagonal-pattern D2 extension
- Diagonal-pattern D2 flexion
- Shoulder external rotation at 0° of abduction
- Shoulder internal rotation at 0° of abduction
- Shoulder abduction to 90°
- Shoulder scapular abduction, external rotation (“full cans”)
- Sidelying shoulder external rotation
- Prone shoulder horizontal abduction
- Prone shoulder horizontal abduction (full external rotation, 100° of abduction)
- Prone rowing
- Prone rowing into external rotation
- Press-ups
- Push-ups
- Elbow flexion
- Elbow extension
- Wrist extension
- Wrist flexion
- Wrist supination
- Wrist pronation

All exercises are performed against resistance, with the goal to improve strength. Full description of the program is available.^{45,46}

EXERCISES INCLUDED IN THE ADVANCED THROWERS TEN EXERCISE PROGRAM

Elastic Tubing/Band Resistive Exercises

- Shoulder external rotation at 0° of abduction while seated on a stability ball*
- Shoulder internal rotation at 0° of abduction while seated on a stability ball*
- Shoulder extensions while seated on a stability ball†
- Lower trapezius isolation while seated on a stability ball†
- High row into shoulder external rotation while seated on a stability ball†
- Biceps curls/triceps extensions while seated on a stability ball†

Isotonic Dumbbell Resistive Exercises

- Full can while seated on a stability ball†
- Lateral raise to 90° while seated on a stability ball†
- Prone T's on stability ball†
- Prone Y's on stability ball†
- Prone row into external rotation on stability ball†
- Sidelying shoulder external rotation
- Wrist flexion/extension and supination/pronation

**Contralateral sustained hold performed during exercise.*

†Exercises are performed in 3 distinct continuous movements per exercise: bilateral active exercise, alternating reciprocal movement, and a sustained contralateral hold.

Ten to 15 repetitions are performed for each movement successively, without rest, to complete 1 set. The goal is the ability to perform 2 full cycles of the entire program without pain, using sound technique and no substitution. Full description of the program is available.⁵²