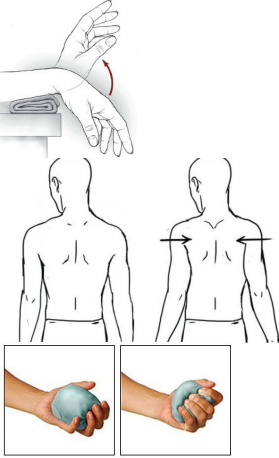





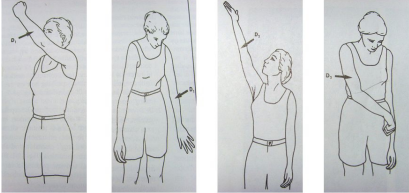
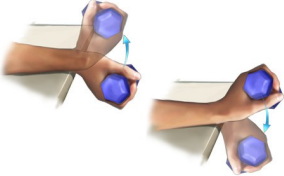
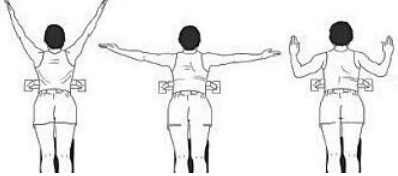


Ulnar Collateral Ligament (UCL) Non-Operative Rehabilitation Protocol

Stephanie A. Boden, MD

Sprains or Partial UCL Tears

Hinged elbow brace for first 6 weeks to protect healing tissue. Restore ROM while wearing brace during this time.

<p>Week 0-3</p>	<p>NSAIDs, Ice, Compression, E-stim for pain modulation and inflammation</p> <p>ROM- Limit between 10-100° (pain free ROM)</p> <ul style="list-style-type: none"> • Elbow PROM, AROM and AAROM in brace • Shoulder ROM <ul style="list-style-type: none"> ○ NO ER stretching • Wrist flexion/extension <p>Strengthening</p> <ul style="list-style-type: none"> • Lower extremity & core • Periscapular activation • Shoulder isometrics – NO IR strengthening to limit stress on medial elbow (load above elbow) • Wrist isometrics • Grip strengthening 	
<p>Week 3-4</p>	<p>Use NSAIDs, Ice, Compression and E-stim as necessary for pain modulation</p> <p>Begin to increase elbow ROM 5-10° per week in brace within a pain free range (10-115°)</p> <ul style="list-style-type: none"> • Active shoulder and elbow ROM (table slides) • Pronation/supination – no pain • Wrist stretching <p>Strengthening</p> <ul style="list-style-type: none"> • Lower extremity, core, scapula control and stabilization 	

	<ul style="list-style-type: none"> • Shoulder rotator cuff isometrics • Isometric elbow and wrist flexion/extension • Continue grip strength 	
<p>Week 4-5</p>	<p>Goal: Gradually continue increasing elbow ROM (5-125°)</p> <p>Stretching</p> <ul style="list-style-type: none"> • Restore ulnar deviation • Shoulder and wrist stretching • Low-load, long-duration stretch into elbow extension with light resistance. <p>Strengthening (must resolve pain and inflammation prior to elbow strengthening)</p> <ul style="list-style-type: none"> • Lower extremity, core and balance • Scapular control with low level arm elevation • Shoulder strengthening progression <ul style="list-style-type: none"> ○ D1/D2 patterns • Initiate isotonic exercises concentrically and eccentrically <ul style="list-style-type: none"> ○ Wrist curls ○ Pronation/supination ○ Biceps/triceps <p>Shoulder rhythmic stabilization</p>	 <p>Sleeper Stretch</p>   
<p>Week 5-6</p>	<p>Goal: Achieve full ROM by end of week 6 (0°-135/145°)</p> <p>Full shoulder and elbow ROM</p> <p>Continue strengthening lower extremity, core and scapular muscles.</p> <p>Work on single leg balance</p> <p>Plyometrics</p> <ul style="list-style-type: none"> • Two handed below chest plyoball toss • Double and single leg balance 	 

Week 6-7

Goal: Actively stressing the UCL

Maintain ROM with continual stretching, no varus or valgus stress on the elbow

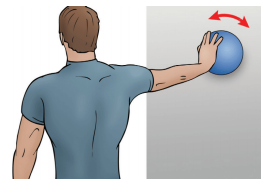
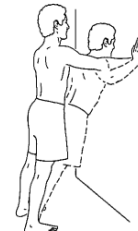
Lower extremity and core strengthening

Continue to work on balance

Early Closed Kinetic Chain exercises against wall

Scapular strengthening with longer lever arm

- Supine serratus anterior punches
- Upright wall push up
- Wall ball rolls



Week 7-8

Goal: Initiate Thrower's Ten Program

Strengthening

- Lower extremity, core, and scapula
- Shoulder advanced exercises
 - 90/90 activation
 - PNF - D1/D2 resistance
- Wrist and forearm

Plyometrics

- Side toss seated with truck rotation
- Continuous ball drops at 90° ABD for pronator mass endurance

Rhythmic stabilizations at 90/90

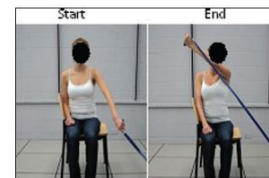


Figure 1. D1 Flexion with Elastic Resistance.

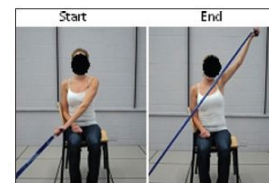
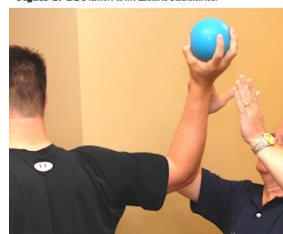
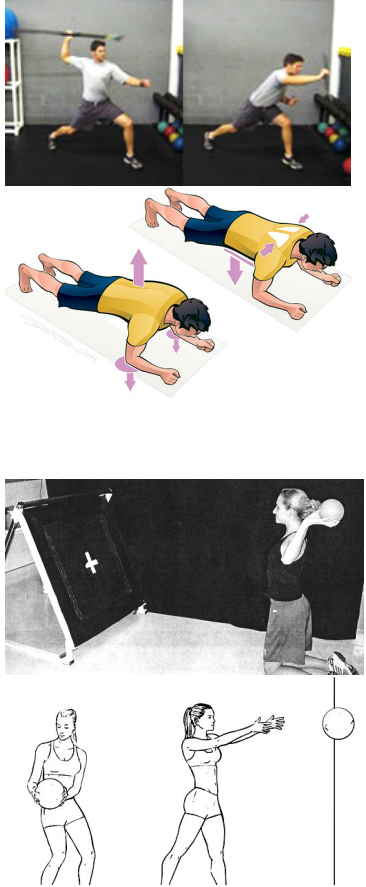


Figure 2. D2 Flexion with Elastic Resistance.



<p>Week 9-12</p>	<p>Goal: Strengthen most muscle groups by week 12</p> <p>Strengthening</p> <ul style="list-style-type: none"> • Continue to strengthen kinetic chain <ul style="list-style-type: none"> ○ Core and scapula • Elbow strengthening <ul style="list-style-type: none"> ○ flexion/extension ○ pronation/supination <p>PNF patterns with body blade</p> <p>Progressing CKC – elbow to hand push-ups</p> <p>Plyometrics</p> <ul style="list-style-type: none"> • Plyoball with mini tramp <ul style="list-style-type: none"> ○ Begin with two-hand plyos ○ Progress to one-hand <ul style="list-style-type: none"> ■ Start 0° abduction, progress to 90° over time • Plyometric wall throws with trunk rotation <ul style="list-style-type: none"> ○ Emphasize core control and strength 	
<p>CRITERIA FOR RETURN TO PLAY</p>	<ul style="list-style-type: none"> • Full pain free elbow ROM and strength <ul style="list-style-type: none"> ○ Pronation (flexor pronator mass), supination, extension, and flexion • Can demonstrate good throwing mechanics for particular sport 	
<p>Week 12+</p>	<p>Initiate Interval Throwing Program</p> <p>Continue throwers 10 exercise and Plyometrics</p>	

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