

# Hays Medical Center

## Ulnar Collateral Ligament Reconstruction

### General Principles:

This protocol was designed to provide the rehabilitation professional with a guideline of postoperative care. It should be stressed that this is only a protocol and should not be a substitute for clinical decision making regarding a patient's progression. Actual progression should be individualized based upon your patient's physical examination, progress, and presence of any complications.

**NOTE: Ligament testing should only be performed by the physician throughout the protocol.**

### PHASE I: (Immediate)

#### Week 1

##### Orthotics-

1. Posterior splint at 90° of elbow flexion at all times

##### Modalities (PRN)-

1. Ice, compression, and elevation as needed
2. Electrical stimulation for pain or muscle re-education
3. Ice for 20 minutes following exercises throughout the protocol

##### ROM-

1. Shoulder and Wrist Active and Passive ROM as tolerated
2. NO Elbow ROM at this time.

##### Exercises-

1. Hand gripping
2. Wrist AROM into all planes
3. Shoulder AROM and PROM as tolerated
  - a. NO Shoulder External Rotation
4. Shoulder Isometrics
  - a. Sub-maximal, sub-painful initially, progress as tolerated
  - b. Flexion, Extension, Abduction, Adduction only
  - c. NO Internal Rotation or External Rotation
5. Biceps Isometrics

#### Week 2

##### Orthotics-

1. Application of functional elbow brace with ROM set from 30° to 100° at all times

##### Modalities (PRN)-

1. Continue Phase I modalities

##### ROM-

1. Wrist and Shoulder ROM to full as tolerated
  - a. NO Shoulder External Rotation
2. Elbow active and passive ROM from 30° to 100°

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## Exercises-

1. Continue Week 1 exercises
2. Wrist Isometrics
3. Elbow extension Isometrics
4. Scapular Isometrics

## **Week 3**

### Orthotics-

1. Functional elbow brace with ROM set from 15° to 110° at all times

### Modalities (PRN)-

1. Continue Phase I modalities

### ROM-

1. Wrist and Shoulder ROM to full as tolerated
  - a. May Initiate GENTLE Shoulder External Rotation in brace
2. Elbow active and passive ROM from 15° to 110°

### Exercises-

1. Isotonic Wrist strengthening, all planes
2. Isotonic Elbow flexion and extension
  - a. Light resistance only (1 lb.)
3. Active shoulder Isotonics
  - a. flexion, abduction, elevation
  - b. Light resistance only (1 lb.)
4. Scapulo-Thoracic strengthening
  - a. Progress resistance as tolerated

## **PHASE II: (Intermediate)**

## **Week 4 – 5**

### Orthotics-

1. Functional elbow brace with ROM set from 10° to 120° at all times

### Modalities (PRN)-

1. Continue Phase I modalities as needed

### ROM-

1. Shoulder and Active and Passive ROM progressing to full as tolerated
2. Elbow active and passive ROM from 10° to 120°

### Exercises-

1. Continue light shoulder and elbow strengthening exercises (1 lb.)
2. Internal Rotation / External Rotation Isometrics (Sub-maximal, Sub-painful)

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## PHASE III: (Strengthening)

### Week 6 – 8

#### Orthotics-

1. Functional elbow brace with ROM set from 0° to 130° at all times

#### Modalities (PRN)-

1. Continue modalities as needed

#### ROM-

1. Shoulder and Elbow Active and Passive ROM progressing to full as tolerated
2. May progress out of functional brace for exercises to full ROM

#### Exercises-

1. Continue Phase II exercises as tolerated
2. Isotonic rotator cuff strengthening
3. May initiate Throwing Athlete exercise program
4. Progress to more resistance on shoulder and elbow strengthening

### Week 9 – 10

#### Orthotics-

1. May discontinue use of functional elbow brace for daily activities
2. Continue to use brace for exercises

#### Modalities (PRN)-

1. Continue only as needed

#### ROM-

1. Maintain full active and passive shoulder and elbow ROM

#### Exercises-

1. Initiate resisted Diagonal patterns
2. May progress to rotator cuff strengthening at 90/90 position
3. Isokinetic elbow and rotator cuff strengthening
  - a. 180 to 300 degrees per second
4. Resisted shoulder diagonal patterns

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## PHASE IV: (Advanced Strengthening)

### Week 11- 15

#### Exercises-

1. Continue Phase III exercises as tolerated
2. Plyometrics
  - a. 2 arm activities only
  - b. Overhead toss, diagonal chops, chest pass, etc
  - c. Progress to 1 arm Plyometrics at **Week 14**
3. May initiate light sports activities
  - a. Interval Golf program, swimming, etc

### Week 16 – 22

#### Exercises-

1. Continue aggressive strengthening program
2. Initiate Interval Throwing Program (Phase I)
  - a. Emphasis on proper throwing mechanics
3. Elbow, Wrist, and Shoulder flexibility exercises with return to throwing

### Weeks 23 – 27

#### Exercises-

1. Progress to Interval Throwing Program (Phase II)

### Weeks 28+

1. Isokinetic Test at 180, 240, and 300 degrees per second for MD review and full release to sport activity. General goal for full release to sport activity is 85% strength compared to uninvolved limb.
2. No throwing in competition until 10 months post-op