

Elbow Ulnar Collateral Ligament Repair Rehabilitation Protocol

- I. Phase I
 - a. **Week 1**
 - i. Goals:
 - 1. Protect healing tissue;
 - 2. reduce pain and inflammation;
 - 3. Slow muscle atrophy;
 - 4. Full wrist (range of motion) ROM
 - ii. ROM
 - 1. Elbow: ROM Splint x 1 week
 - 2. Passive ROM: (PROM) wrist and hand
 - iii. **POD Day 1 and 2:** Add (all performed in locked elbow brace)
 - 1. Shoulder PROM: flexion, ER, and IR to tolerance
 - 2. Pendulum exercises
 - 3. Wrist flexor/extensor stretching
 - 4. Putty/gripping exercises
 - iv. **Post-op Day 3 through 7**
 - 1. All exercises performed in splint
 - 2. Continue previous exercises, advancing PROM as tolerated
 - 3. Add the following exercises
 - a. a. Shoulder isometrics: ER, IR, abduction, flexion, and extension
 - b. b. Scapular strengthening (seated neuromuscular control drills with manual resistance)
 - b. **Weeks 2-4: Controlled Mobility**
 - i. Goals:
 - 1. Gradually restore elbow joint ROM
 - 2. Improve muscular strength and endurance
 - 3. Normalize joint arthrokinematics
 - ii. **Week 2**
 - 1. Move from Splint to Elbow ROM Brace (30-110 deg)
 - 2. Begin Elbow PROM and AAROM 30-110 deg
 - 3. Initiate AROM elbow
 - 4. Initiate AROM shoulder joint
 - 5. Scapular Strengthening exercises
 - 6. Progress to light isotonic strengthening at day 10
 - iii. **Week 3-4**
 - 1. ROM: 10-125 deg
 - 2. Initiate Thrower's Ten Exercise Program (for overhead athletes)
- II. Phase II (Weeks 4-8)
 - a. Goals:
 - i. Restore Full Elbow ROM
 - ii. Progress Upper Extremity Strength
 - iii. Continue with functional Progression
 - b. **Week 4**
 - i. ROM: 0-145°

- ii. Progress to Advanced Thrower's Ten Program
- iii. Progress elbow and wrist strengthening exercises
- iv. Wrist flexion and elbow flexion movements against manual resistance

c. Week 6:

- i. Initiate 2 hand plyometrics
- ii. Discontinue brace at week 6
- iii. Prone planks

d. Week 8:

- i. Progress to 1 hand plyometrics
- ii. Continue with Advanced Thrower's Ten
- iii. Side planks with ER strengthening

e. Criteria for Advancement:

- i. Full non-painful ROM
- ii. No pain or tenderness
- iii. Isokinetic test that fulfills criteria to throw (Overhead athletes)
- iv. Satisfactory clinical exam
- v. Completion of rehab phases without difficulty

III. Phase III (Weeks 9-14)

a. Goals:

- i. Advanced strengthening exercises
- ii. Initiate interval throwing program
- iii. Gradual return to throwing

b. Week 9

- i. Continue all strengthening exercises
- ii. Advanced Thrower's Ten program
- iii. Plyometrics program (1 and 2 hand program)

c. Week 10

- i. Seated chest press machine
- ii. Initiate interval hitting program (baseball players)
- iii. Seated rowing
- iv. Biceps/Triceps strengthening

d. Weeks 11-16

- i. Initiate Interval Throwing Program Phase 1- Long Toss (week 12)
- ii. Continue all exercises as in week 9-10

e. Weeks 16-20

- i. Initiate Interval Throwing Phase 2 (Off the mound) when Phase 1 is complete and athlete is ready
- ii. Continue Advanced Thrower's Ten program
- iii. Continue Plyometrics
- iv. Continue ROM and Stretching Programs

IV. Phase IV (Return to Play)

a. Goals:

- i. Gradual return to competitive throwing
- ii. Continue all exercises and stretches

b. Week 20+

- i. Initiate gradual return to competitive throwing
- ii. Perform dynamic warm-ups and stretches

- iii. Continue thrower's ten program
- iv. Note: ** Each athlete may progress through ITP at different rates/pace Should complete 0-90 ft within 3 weeks of starting ITP and complete 120 ft within 8 weeks
- c. Functional Testing
 - i. FMS with Goal >15
 - ii. CKCUEST
 - iii. Upper Quarter Y-Balance Test
 - iv. Strength Testing:
 - 1. Single Arm Dumbbell Press
 - 2. Single Arm Overhead Press

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