

POST-OPERATIVE REHABILITATION PROTOCOL

Elbow UCL Repair with Internal Brace

William McLaughlin, MD | Sports Medicine Surgery | Advanced Bone & Joint

Phase 1 | Immediate Post-Op | 0-2 Weeks

GOALS FOR THIS PHASE

- Protect the repair.
- Control pain and swelling.
- Begin gentle motion.

Immobilization

- Posterior splint at 90° elbow flexion for the first 5-7 days.
- Begin active-assisted ROM in a hinged brace by end of week 1 (initial setting 45°-100°).

Therapeutic Exercises

- Wrist and hand gripping exercises (putty, ball squeezes).
- Shoulder isometrics (no internal rotation against resistance).

Modalities

- Cryotherapy: ice 15-20 minutes, 4-6 times daily.

Precautions

- No valgus stress to the elbow.
- No lifting, carrying, or pushing with the operative arm.

Phase 2 | Early Motion & Protection | 2-6 Weeks

GOALS FOR THIS PHASE

- Restore full range of motion (target 0°-135° by weeks 4-6).
- Begin light strengthening.
- Unlock brace at approximately week 4 per surgeon discretion.
- Continue brace wear at all times including sleep.

Range of Motion (hinged brace)

- Week 2: 30°-110°.
- Week 3: 15°-120°.

- Week 4: 0°-135° (goal: full ROM by weeks 4-6).

Immobilization

- Unlock brace at approximately week 4 (per surgeon discretion).
- Continue wearing brace at all times, including sleep.

Strengthening

- Begin light isometric elbow flexion and extension.
- Forearm pronation and supination exercises.
- Scapular stabilization (scapular squeezes, rows).
- Rotator cuff strengthening (external rotation with tubing; avoid resisted internal rotation).

Precautions

- Continue to avoid valgus stress.

Phase 3 | Intermediate Strengthening | 6-12 Weeks

GOALS FOR THIS PHASE

- Discontinue hinged brace (typically week 6, per surgeon clearance).
- Build functional strength.
- Achieve full, pain-free ROM by end of phase.

Immobilization

- Discontinue hinged brace (typically week 6, per surgeon clearance).

Strengthening

- Isotonic: biceps curls, triceps extensions.
- Wrist curls and reverse wrist curls.
- Forearm pronation/supination with light weight.
- Progressive shoulder strengthening (internal/external rotation with tubing, overhead press).
- Core and lower-extremity conditioning program.
- Begin two-hand plyometric tosses (chest pass, side throw) toward end of phase.

Range of Motion

- Full, pain-free ROM should be achieved by end of this phase.

Phase 4 | Advanced Strengthening | 12-16 Weeks

GOALS FOR THIS PHASE

- Prepare for return to throwing and sport-specific activity.
- Begin interval throwing program when criteria are met.

Strengthening

- Advanced upper-extremity strengthening.
- One-arm plyometric drills and weighted ball exercises.
- Sport-specific conditioning and agility drills.

Criteria to Begin Interval Throwing Program

- Full, pain-free elbow ROM.
- No tenderness on the inner (medial) side of the elbow.
- Strength at least 85% of opposite arm.
- Surgeon clearance.

Interval Throwing Program | Beginning Weeks 12-16

GOALS FOR THIS PHASE

- Gradually progress throwing distance, volume, and intensity.
- Advance to mound work only after completing flat-ground program pain-free.
- Return to competitive throwing at MD-cleared milestones.

Program

- Start at 45 feet, 25 throws at 50% effort.
- Gradually increase distance and intensity over 6-8 weeks.
- Progress to mound throwing (pitchers) only after flat-ground program is completed pain-free.
- Advance to live batting practice and simulated games as tolerated.
- Full competitive return is expected around 6-7 months (practice) and 9 months (competition).

Key Precautions — All Phases

GOALS FOR THIS PHASE

- Adhere to valgus-stress and throwing restrictions throughout rehabilitation.
- Maintain brace, cryotherapy, and clearance protocols.

Precautions

- NO valgus stress to the elbow at any time during rehabilitation.

- NO throwing until cleared by your surgeon (typically no earlier than 12 weeks).
- Wear the hinged brace at all times during the first 6 weeks, including while sleeping.
- NO contact sports or heavy lifting until cleared (typically 5-6 months minimum).
- Ice the elbow for 15-20 minutes after every therapy session or exercise.
- Report any new numbness, tingling, or weakness in the ring or small fingers immediately — temporary nerve irritation occurs in about 1 in 20 patients.

When to Call Your Surgeon

- Increasing pain or swelling not relieved by rest and ice.
- New numbness or tingling in the hand or fingers.
- Fever, redness, or drainage from the incision site.
- A sudden pop or giving-way sensation in the elbow.

Expected Milestones

- Weeks 4-6: full, pain-free range of motion.
- Week 6: brace discontinued.
- Weeks 12-16: begin interval throwing program.
- Months 5-7: return to practice.
- Months 7-9: return to full competition.

This protocol is a general guideline. Progression is patient-specific and at the discretion of William McLaughlin, MD.