

Elbow UCL Repair

Physical Therapy Post-op Protocol

Weeks 0-2

Primary goal: Allow incision healing

- Splint until first post-operative visit (7-10 days)
- Transition to hinged brace
- Elevate on pillows to heart level or above
- Ball squeezes and frequent grip with arm elevated, edema massage if needed

Weeks 2-4

Primary goal: Initial ROM, protect repair

- Brace set at 90 degrees with neutral rotation (thumb pointing up)
 - Brace set to allow 0-100 degree arc
- Frequent active and active-assist elbow flexion/extension
- Ball squeezes and grip training
- May incorporate Blood Flow Restriction
- Scapular stabilization (shoulder shrugs and shoulder blade pro/retraction)
 - Isometrics and manual exercises with proximal resistance
- Total Body Conditioning program begun once wound healed (3 weeks)

Weeks 4-8

Primary goal: Full elbow ROM, early strengthening

- Discontinue brace but avoid valgus stress at elbow
- Continue active and active-assisted elbow flexion/extension, pronation/supination
- Full UE flexibility program
- Isotonic strengthening of scapula, shoulder, elbow, forearm, wrist
- Begin IR/ER by 8-9 weeks
- Begin Thrower's ten program
- Neuromuscular drills
- PNF patters and eccentric strengthening once strength adequate
- Stationary bike without resistance to handles
- May incorporate Blood Flow Restriction

Weeks 8-12

Primary goal: increasing strength and endurance, prepare for throwing program

- IR/ER strengthening in 90/90 position
- Increase endurance and plyometric training
- Continue to emphasize core and lower body stability
- Continue Blood Flow Restriction (BFR)
- Emphasis on throwing mechanics and core/LE strength

THROWING PROGRAM

Program performed 3-4x per week and ice after each session

Soreness is to be expected but no medial elbow pain. If this is painful, please contact physician

Progression to advance to next level stage of program requires no medial elbow/pain/stiffness and maintenance of strength/form during final set

Stage 1

- 20 throws at 20 ft (warm up)
- 25-40 throws at 30-40 ft
- 10 throws at 20 ft (cool down)

Stage 2

May use an easy wind-up delivery on alternate days

- 10 throws at 20 ft (warmup)
- 10 throws at 30-40 ft
- 30-40 throws at 50 ft
- 10 throws at 20-30 ft (cool down)

Stage 3

Do not throw with more than 50% max effort and no more than 60 ft

- 10 throws at 30 ft (warm up)
- 10 throws at 40-45 ft
- 30-40 throws at 60-70 ft
- 10 throws at 30 ft (cool down)

Stage 4

Primary goal: Gradual increase to maximum of 150 ft toss

PHASE 1 of Ramp up

- 10 throws at 40 ft (warm up)
- 10 throws at 50-60 ft
- 15-20 throws at 70-80 ft
- 10 throws at 50-60 ft
- 10 throws at 40 ft (cool down)

PHASE 2 of Ramp pup

- 10 throws at 40 ft (warm up)
- 10 throws at 50-60 ft
- 20-30 throws at 80-90 ft
- 20 throws at 50-60 ft
- 10 throws at 40 ft (cool down)

PHASE 3 of Ramp up

- 10 throws at 40 ft (warm up)
- 10 throws at 60 ft
- 15-20 throws at 100-110 ft
- 20 throws at 60 ft
- 10 throws at 40 ft (cool down)

PHASE 4 of Ramp up

- 10 throws at 40 ft (warm up)
- 10 throws at 60 ft
- 15-20 throws at 120-150 ft
- 20 throws at 60 ft
- 10 throws at 40 ft (cool down)

Stage 5

Primary goal: Progress to throwing off mound with no more than 50-75% max effort.

Use proper mechanics: Stay on top of ball, throw over the top with elbow up, follow through with arm and trunk

PHASE 1

- 10 throws at 60 ft (warm up)
- 10 throws at 120-150 ft (lobs)
- 30 throws at 45 ft (off mound)
- 10 throws at 60 ft (off mound)
- 10 throws at 40 ft (cool down)

PHASE 2

- 10 throws at 50 ft (warm up)
- 10 throws at 120-150 ft (lobs)
- 20 throws at 45 ft (off mound)
- 30 throws at 60 ft (off mound)

- 10 throws at 40 ft (cool down)

PHASE 3

- 10 throws at 50 ft (warm up)
- 10 throws at 60 ft
- 10 throws at 120-150 ft (lobs)
- 10 throws at 45 ft (off mound)
- 30 throws at 60 ft (off mound)
- 10 throws at 40 ft (cool down)

PHASE 4

- 10 throws at 50 ft (warm up)
- 10 throws at 120-150 ft (lobs)
- 10 throws at 45 ft (off mound)
- 40-50 throws at 60 ft (off mound)
- 10 throws at 40 ft (cool down)

Stage 6

Primary goal: Simulation games at near maximum effort

At this time, if throwing without medial elbow pain at 75% effort, begin throwing simulation games at near max effort, every other day.

DAY 1

- 10 throws at 120-150 ft (lobs)
- 10 throws at 60 ft (off mound)
- 40 pitches at 60 ft (off mound)
- Rest period
- 20 pitches at 60 ft (off mound)

DAY 2 OFF

DAY 3

- 10 throws at 120-150 ft (lobs)
- 10 throws at 60 ft (warm ups off mound)
- 30 pitches at 60 ft (off mound)
- Rest period
- 10 throws at 60 ft (warm ups off mound)
- 20 pitches at 60 ft (off mound)
- Rest period
- 10 throws at 60 ft (warm ups off mound)
- 20 pitches at 60 ft (off mound)

DAY 4 OFF

DAY 5

- 10 throws at 120-150 ft (lobs)
- 10 throws at 60 ft (warm ups off mound)
- 30 pitches at 60 ft (off mound)
- Rest period
- 20 pitches at 60ft (off mound)
- Rest period
- 20 pitches at 60ft (off mound)
- Rest period
- 20 pitches at 60ft (off mound)

Stage 7

Primary goal: Throwing batting practice and bullpens.

**Begin normal routine of throwing batting practice to pitching in bullpen.
Program will be adjusted as needed by physician, ATC or physical therapist.**

Stage 8

Primary goal: full return to pitching

- Readiness for full return will be made by physician and therapist/ATC based on overall conditioning and throwing mechanics