

Elbow LUCL Reconstruction

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, locked at 90 degrees
- Elevate on pillows to heart level or above
- Ball squeezes and frequent grip
- Shoulder wrist and hand modalities allowed

Weeks 2-6

Primary goal: Initial light ROM, protect graft by avoiding supination

- 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, grip training, wrist curls
- Lifting no more than a coffee cup
- 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)
 - Lower body stationary equipment

Weeks 6-12

Primary goal: Full elbow ROM, early strengthening

- Discontinue brace and avoid VARUS stress at elbow
- Continue active and active-assisted elbow flexion/extension, pronation/supination
- Isotonic strengthening of scapula, shoulder, elbow, forearm, wrist
- Begin IR/ER by 8-9 weeks
- Neuromuscular drills
- Thrower's Ten exercises
- PNF patters and eccentric strengthening once strength adequate
- Stationary bike with low resistance
- May incorporate Blood Flow Restriction

Weeks 12-16

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

- Full UE flexibility 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)

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

Weeks 16-20

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

Weeks 21-24

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)

Weeks 25-28 (5-6 months)

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)

Weeks 29-32 (7-8 months)

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)

Weeks 33-36 (8-9 months)

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)

Weeks 37-42 (9-10 months)

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)

Weeks 43-52 (10-12 months)

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.**

Weeks 53+ (12-14 months)

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