

POST-OPERATIVE REHABILITATION PROTOCOL

Olecranon Open Reduction & Internal Fixation

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

Precautions: aggressive elbow flexion ROM for 4-6 weeks; biceps strengthening for 6 weeks; closed-kinetic-chain exercises for 6-8 weeks.

Phase 1 | Immediate Post-Op | 0-4 Weeks

GOALS FOR THIS PHASE

- Protect the healing site for 4-6 weeks.
- Decrease pain and inflammation.
- Retard muscular atrophy.
- Promote tissue healing.

Week 1

- Brace: posterior splint at 90° elbow flexion for 4 weeks.
- Wrist AROM ext/flexion immediately post-op.
- Elbow post-op compression dressing (5-7 days).
- Wrist (graft site) compression dressing 7-10 days as needed.
- Gripping exercises, wrist ROM, shoulder isometrics (no shoulder ER).
- Cryotherapy to elbow joint as needed.

Week 2

- Brace: posterior splint at 90° flexion.
- Continue all exercises listed above.
- Initiate PROM of elbow 30-100° (greater extension acceptable).
- Initiate sub-painful elbow extension isometrics.
- Continue wrist ROM 4-5x/day.
- Initiate light scar mobilization over distal incision.
- No biceps or active elbow flexion.
- Continue ice to elbow.

Week 3

- Brace: posterior splint for comfort.
- Continue all exercises listed above.
- Elbow ROM 6-8x/day.

- Initiate active ROM of wrist and elbow (no resistance).
- Continue PROM/AAROM elbow motion.
- Elbow ROM (minimal) 15-105°, progress extension as tolerated.

Week 4

- Brace: posterior splint for comfort.
- Elbow ROM 0-125°.
- Begin light resistance exercises for arm (wrist curls, extensions, pronation, supination, elbow extension).
- Progress shoulder program emphasizing rotator cuff and scapular strengthening.
- Initiate shoulder strengthening with light dumbbells.
- Initiate Thrower's Ten.

Phase 2 | Intermediate | Weeks 5-8

GOALS FOR THIS PHASE

- Gradual increase to full ROM.
- Promote healing of repaired tissue.
- Regain muscular strength.
- Restore full function of graft site.

Week 5

- Elbow ROM 0-135°.
- Discontinue brace.
- Continue all exercises; progress all shoulder/UE exercises (progress weight by 1 lb).

Week 6

- AROM: 0-145° without brace or full ROM.
- Continue Thrower's Ten Program.
- Progress elbow strengthening.
- Initiate shoulder external rotation strengthening.
- Progress shoulder program.
- Initiate biceps strengthening.

Week 7

- Progress Thrower's Ten Program (progress weights).
- Initiate PNF diagonal patterns (light).

Phase 3 | Advanced Strengthening | Weeks 9-14

GOALS FOR THIS PHASE

- Increase strength, power, and endurance.
- Maintain full elbow ROM.
- Gradually initiate sporting activities.

Week 8

- Initiate eccentric elbow flexion/extension.
- Continue isotonic program for forearm and wrist.
- Continue shoulder program — Thrower's Ten.
- Manual resistance diagonal patterns.
- Initiate plyometric exercise program (two-hand plyos close to body only: chest pass, side throw close to body).

Week 10

- Continue all exercises listed above.
- Progress plyometrics to two-hand drills away from body (side-to-side throws, soccer throws, side throws).
- Increase plyometrics as tolerated.

Phase 4 | Return to Activity | Weeks 12-16

GOALS FOR THIS PHASE

- Continue to increase strength, power, and endurance of upper-extremity musculature.
- Gradual return to sport activities.

Week 12

- Continue strengthening program with emphasis on elbow and wrist strengthening and flexibility.
- Maintain full elbow ROM.
- Initiate one-hand plyometric throwing (stationary throws, wall dribble, baseball throws into wall).
- Initiate interval throwing program Phase I.
- Initiate hitting program.

Weeks 14-16

- Continue interval throwing program.
- Gradual return to sports.

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