

Olecranon Fracture Surgery (ORIF)

Physical Therapy Protocol

Precautions

- Avoid aggressive elbow flexion ROM for 4–6 weeks.
- Avoid biceps strengthening for 6 weeks.
- Avoid closed kinetic chain exercises for 6–8 weeks.

Phase I – Immediate Post-Operative Phase (Weeks 0–4)

Goals:

- Protect healing site (4–6 weeks).
- Decrease pain/inflammation.
- Decrease muscular atrophy.
- Promote tissue healing.

Post-Operative Week 1

- **Brace:** Posterior splint at 90° elbow flexion for 10 days.
- **ROM:**
 - Wrist AROM (flexion/extension) immediately postoperative.
 - Elbow: Postoperative compression dressing for 5–7 days.
 - Wrist (graft site): Compression dressing 7–10 days as needed.
- **Exercises:**
 - Gripping exercises.
 - Wrist ROM.
 - Shoulder isometrics (No shoulder ER).
- **Cryotherapy:** Apply to elbow joint as needed.

Post-Operative Week 2

- **Brace:** Hinged elbow brace locked at 90° flexion when not in therapy.
- **Exercises:**

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- Continue prior exercises.
- Initiate PROM of elbow 30°–100° (greater extension acceptable).
- Initiate elbow extension isometrics (sub-painful).
- Continue wrist ROM exercises 4–5x daily.
- Initiate light scar mobilization over distal incision.
- **No biceps or active elbow flexion.**
- Continue wrist ROM exercises 6–8x daily.
- **Cryotherapy:** Continue ice to elbow.

Post-Operative Week 3

- **Brace:** Hinged elbow brace open to ROM as above.
- **Exercises:**
 - Continue prior exercises.
 - Elbow ROM 6–8x daily.
 - Initiate active ROM for wrist and elbow (no resistance).
 - Continue PROM/AAROM elbow motion.
 - Elbow ROM (minimal): 15°–105°, progress extension as tolerated.
 - Initiate shoulder rehab program:
 - Tubing IR/ER
 - Full can
 - Lateral raises
 - Elbow extension
 - Initiate light scapular strengthening.
 - May incorporate bicycle for lower extremity strength & endurance.

Post-Operative Week 4

- **Brace:** Unlock completely.
- **ROM:** Elbow 0°–125°.
- **Exercises:**
 - 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 if overhead athlete.

Phase II – Intermediate Phase (Weeks 5–8)

Goals:

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

Post-Operative Week 5

- **ROM:** Elbow 0°–135°.
- **Brace:** Discontinue hinged elbow brace.
- **Exercises:** Progress all shoulder and UE exercises (progress weight by 1 lb).

Post-Operative Week 6

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

Post-Operative Week 7

- **Exercises:**
 - Progress Thrower’s Ten Program (increase weights).
 - Initiate PNF diagonal patterns (light).

Phase III – Advanced Strengthening Phase (Weeks 9–14)

Goals:

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

Post-Operative Week 8

- **Exercises:**
 - Initiate eccentric elbow flexion/extension.
 - Continue isotonic forearm & wrist program.
 - Continue Thrower’s Ten Program.
 - Manual resistance diagonal patterns.
 - Initiate plyometric exercise program:
 - Chest pass.
 - Side throw close to body.
 - Continue stretching calf and hamstrings.

Post-Operative Week 10

- **Exercises:**
 - Continue all prior exercises.
 - Progress plyometrics:
 - Two-hand drills away from body:
 - Side-to-side throws.
 - Soccer throws.
 - Side throws.

Phase IV – Return to Activity Phase (Weeks 12–16)

Goals:

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

Post-Operative Week 12

- **Exercises:**
 - Continue strengthening program (emphasis on elbow & wrist).
 - Maintain full elbow ROM.
 - Initiate one-hand plyometric throwing (stationary throws).
 - Initiate one-hand wall dribble.
 - Initiate one-hand baseball throws into wall.

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- Begin interval throwing program Phase I.
- Initiate hitting program.

Post-Operative Weeks 14–16

- **Exercises:**
 - Continue interval throwing program.
 - Gradual return to sports.

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