

## Post-Operative Rehabilitation Protocol Following Olecranon ORIF

### Precautions:

- Aggressive elbow flexion ROM for 4-6 weeks
- Biceps strengthening for 6 weeks
- Closed kinetic chain exercises for 6-8 weeks

### I. IMMEDIATE POST-OPERATIVE PHASE (0-4 weeks)

Goals: Protect healing site for 4-6 weeks  
Decrease pain/inflammation  
Retard muscular atrophy  
Promote tissue healing

#### Post-Operative Week 1

**Brace:** Posterior splint at 90 degrees elbow flexion for 4 weeks

**Range of Motion:** Wrist AROM ext/flexion immediately postoperative

Elbow postoperative compression dressing (5-7 days)  
Wrist (graft site) compression dressing 7-10 days as needed

**Exercises:** Gripping exercises  
Wrist ROM  
Shoulder isometrics (No Shoulder ER)

**Cryotherapy:** To elbow joint as needed

#### Post-Operative Week 2

**Brace:** Posterior splint at 90 degrees flexion

**Exercises:** Continue all exercises listed above  
Initiate PROM of elbow 30-100 (greater extension is acceptable)  
Initiate elbow extension isometrics (sub-painful)  
Continue wrist ROM exercises 4-5 x daily  
Initiate light scar mobilization over distal incision  
No biceps or active elbow flexion  
Continue wrist ROM exercises 6-8 x daily

**Cryotherapy:** Continue ice to elbow

#### Post-Operative Week 3

**Brace:** Posterior splint for comfort

**Exercises:** Continue all exercises listed above  
Elbow ROM 6-8 x daily  
Initiate active ROM 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 exercises  
 May incorporate bicycle for lower extremity strength & endurance

**Week 4**

**Brace:** Posterior splint for comfort  
 Elbow ROM 0 to 125 degrees

**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 Throwers Ten

**II. INTERMEDIATE PHASE (Week 5-8)**

**Goals:** Gradual increase to full ROM  
 Promote healing of repaired tissue  
 Regain and improve muscular strength  
 Restore full function of graft site

**Week 5**

**ROM:** Elbow ROM 0-135 degrees  
 Discontinue brace

**Continue all Exercises:** Progress all shoulder and UE exercises (progress weight 1 lb.)

**Week 6**

**AROM:** 0-145 degrees without brace or full ROM

**Exercises:** Continue Thrower's Ten Program  
 Progress elbow strengthening exercises  
 Initiate shoulder external rotation strengthening  
 Progress shoulder program  
 Able to initiate more aggressive elbow flexion  
 Initiate biceps strengthening

**Week 7**

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

**III. ADVANCED STRENGTHENING PHASE (Week 9-14)**

**Goals:** Increase strength, power, endurance  
 Maintain full elbow ROM  
 Gradually initiate sporting activities

**Week 8**

**Exercises:** Initiate eccentric elbow flexion/extension  
Continue isotonic program: forearm & wrist  
Continue shoulder program – Thrower's Ten Program  
Manual resistance diagonal patterns  
Initiate plyometric exercise program  
(2 hand plyos close to body only)  
-Chest pass  
-Side throw close to body  
Continue stretching calf and hamstrings

**Week 10**

**Exercises:** Continue all exercises listed above  
Program plyometrics to 2 hand drills away from body  
-Side to side throws  
-Soccer throws  
-Side throws  
- Increase plyometrics as tolerated

**IV. RETURN TO ACTIVITY PHASE (Week 12-16)**

**Goals:** Continue to increase strength, power, and endurance of upper extremity musculature  
Gradual return to sport activities

**Week 12**

**Exercises:** Continue strengthening program  
Emphasis on elbow and wrist strengthening and flexibility exercises  
Maintain full elbow ROM  
Initiate one hand plyometric throwing (stationary throws)  
Initiate one hand wall dribble  
Initiate one hand baseball throws into wall  
Initiate interval throwing program phase I  
Initiate hitting program

**Week 14-16**

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