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