

Department of Rehabilitation Services

Hand Therapy Guidelines

Elbow Fracture

Post-Op Radial Head/Olecranon ORIF

The intent of this guideline is to provide the clinician with an outline of the post-operative rehabilitation course of a patient that has undergone an open reduction internal fixation (ORIF) of radial head and/or olecranon. It is by no means intended to be a substitute for one's clinical decision making regarding the progression of a patient's post-operative course based on their physical exam/findings, individual progress, and/or the presence of post-operative complications. If a clinician requires assistance in the progression of a post-operative patient, they should consult with the referring surgeon.

Progression to the next phase is based on clinical criteria and/or time frames as appropriate.

Phase I – Immediate Post Surgical Phase (Week 1-2):

Therapy Goals:

- Initiate early range of motion (ROM) of digits, wrist and shoulder
- Initiate active range of motion (AROM) exercises of elbow/forearm in the stable arc of motion as communicated by surgeon. (**Elbows are prone to stiffness quickly so make sure patient is moving early and doing exercises correctly at home i.e. stabilizing shoulder so motion is happening through elbow joint)
- Minimize edema

Precautions:

Non-weight bearing (NWB) to involved upper extremity

No lifting, pushing, pulling with involved upper extremity

THERAPY FOCUS DAY 2-3 THROUGH DAY 10-14:

- Fabricate a custom posterior elbow orthotic with elbow at 90 degrees flexion, forearm in neutral and wrist support for comfort; or patient may be fitted for hinged brace (Surgi-Care or Ortho Tech) – surgeon preference. (Pt may also be in a sling only.)
- Educate patient on AROM to shoulder, wrist and hand.
- Initiate elbow/forearm AROM in flexion/extension and pronation/supination. Gravity assist in elbow flexion/extension can be helpful if patient is experiencing a lot of pain or having difficulty with ROM exercises. AROM is as tolerated unless surgeon provides specific parameters.
- Edema management: May include compression garments (tubigrip sleeve, compression glove), cold/hot modalities, elevation above the heart

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Phase II – Protection Phase (Week 2-6):

Therapy Goals:

- Focus therapeutic exercise on increasing ROM to elbow and forearm.
- Orthotic/Brace: At 4 weeks out of orthotic at home but continue to wear in crowds and to bed at night.
- Patient to use hand for light ADLs while in splint (up to 3-4 weeks); Progression of light functional activities out of splint at 4 weeks post op.

Precautions:

NWB to involved upper extremity

No heavy lifting

Criteria for progression to the next phase:

Improving elbow/forearm motion with minimal pain; ROM measurements taken weekly to assess progression of ROM.

THERAPY FOCUS WEEK 2-3:

- A, AAROM to elbow and forearm
- Edema management: ongoing use of elevation, cold/hot modalities, compression garments
- Orthotic worn except for hygiene and exercises
- Light ADLs using hand of involved extremity with orthotic in place

THERAPY FOCUS WEEKS 3-6:

- A, AA and PROM to elbow and forearm – PROM can begin at week 4
- Start to wean from splint/brace at week 4; continue to wear when out of the house and to bed at night
- Initiate scar management: after sutures removed and incision well healed, begin scar mobilization, scar pad if indicated.
- Initiate functional activities as tolerated out of splint/brace at 3-4 weeks: start with lighter tasks such as dressing, bathing, grooming.
- Light lifting – pound/weight limit as per surgeon instruction.

Phase III – Intermediate phase (Week 6-12):

Therapy Goals:

- Regain full ROM elbow/forearm
- Regain functional strength of extremity as evidenced by ability to return to previous level of function; Functional Outcome Measure (e.g. QuickDASH)
- Return to previous level of function and independence in basic/instrumental activities of daily living (I/ADLs).

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Precautions:

Patient can start weight bearing on involved extremity: Begin with weightbearing on tabletop or countertop then progress to wall and quadruped as tolerated.

THERAPY FOCUS WEEKS 6-12:

- Orthotic can be discontinued by week 6
- Initiate use of static progressive orthotic (if indicated) per surgeon orders.
- Progress w/PROM
- Progress integration of involved extremity into functional activities without orthotic as tolerated according to comfort level with task; IADLs such as vacuuming, house cleaning, yard work.
- Initiate the following joint mobilizations to increase elbow/forearm ROM:
1) Humeral Ulnar joint: medial and lateral glides to promote both flexion and extension. 2) Humeral Radial joint: dorsal glide for extension, volar glide for flexion. 3) Proximal radio-ulnar joint: ventral glide of radius for supination; dorsal glide of radius for pronation.
- Begin progressive resistive exercises to elbow at week 6-8.
- Progress with weight bearing activities: wall pushups, quadruped, modified pushups against gravity.

Phase IV – Advanced strengthening phase (week 12-20):

Typically, formal outpatient therapy is completed by week 8-12 and patient continues to work on strengthening exercises independently or in a work conditioning program or with a trainer.

Therapy Goals:

- Return to work for patients whose jobs require heavier lifting/activities such as laborers.
- Return to sport for athletes.

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