

Medial Epicondyle ORIF CLINICAL PRACTICE GUIDELINE

Background

- **Prevalent among adolescent:** Elbow fractures, both acute and chronic
- **Surgical Indication:** Fractures with significant displacement (typically >5 mm)
- **Rehabilitation post ORIF:** Initial 6 weeks to facilitate bone healing
- **Consultation:** Surgeon and review of the operative report before starting rehabilitation.

Disclaimer

- Progression is time and criterion-based, depending on soft tissue healing, patient demographics, and clinician evaluation.
- For questions, contact Dr. Sujan Gogu's clinic.

Risk Factors	Precautions
<ul style="list-style-type: none">➤ Subsequent surgeries➤ Lack of adherence to surgical precautions➤ Secondary comorbidities	<ul style="list-style-type: none">➤ Use brace with ROM limitations➤ Splint at 90 degrees elbow flexion for 10-14 days➤ Light soft tissue mobilization to improve blood flow and reduce edema➤ Avoid elbow joint mobilizations for 6 weeks➤ Avoid wrist flexor or pronator strengthening for 6 weeks➤ Avoid aggressive wrist flexor or pronator stretching for 6 weeks➤ Avoid valgus stress to medial elbow for 6 weeks➤ No lifting >5 lbs for 8 weeks (longer if other surgeries)

Potential Complications	Corrective Interventions
<ul style="list-style-type: none"> ➤ Nonunion ➤ Nerve palsy ➤ Joint stiffness 	<ul style="list-style-type: none"> ➤ Use cryotherapy for pain and inflammation ➤ Administer manual therapy

Functional Outcome Measures	Criteria for Discharge
<ul style="list-style-type: none"> ➤ Disability of Arm Shoulder and Hand ➤ Questionnaire: <ul style="list-style-type: none"> • DASH • KJOC 	<ul style="list-style-type: none"> ➤ Achieve >90% with patient-reported outcome ➤ Attain full AROM, strength, and demonstrate pain-free, sports-specific movements without compensatory movements

Phase I Immediate Post-Op (0-2 weeks)

- Protecting incision and promoting bone healing.
- Managing pain and inflammation.
- **Educating** the patient on bone healing, activity modification, and swelling management.
- Restricting elbow movement, ensuring clean incisions, and following immobilization instructions.
- Restoring passive shoulder and elbow range of motion gradually.
- Introducing shoulder strengthening **exercises** with precautions.
- Including scapular retraction, trunk ROM/core strengthening, and lower extremity exercises.
- Using **vaso** for pain and swelling control.
- Implementing a **home exercise program** for posture, scapular control, and avoiding active elbow/wrist movements.

Criteria for progressing to Phase II

- Protection of the repair site

- Minimal pain
- Minimal to no swelling

Phase II (2-6 weeks) post-op

- Gradually increasing elbow extension and flexion range of motion without aggressive pushing.
- Managing pain, inflammation, and promoting tissue healing.
- **Avoiding specific movements** like soft tissue mobilization on scars, elbow joint mobilizations, and certain wrist exercises for 6 weeks.
- Using **vaso** and **E-stim** for pain and swelling control.
- Implementing a hinged brace and gentle passive range of motion exercises.
- Progressing to active elbow movement by week 4.
- Including **shoulder strengthening** with precautions, light stabilizations near the elbow, and continuing core and lower extremity exercises.

Criteria for progressing to Phase III

Monitoring criteria such as:

- Achieving full elbow range of motion
- Normal shoulder motion
- pain-free exercises
- Absence of swelling

Phase III (6-12 weeks) of post-operative rehabilitation

- Gradually increase elbow and forearm range of motion.
- Ensure exercises are pain-free without swelling.
- Begin light strengthening of wrist and elbow muscles.
- Improve scapular control and mobility.
- Enhance overall conditioning and strength.

Key activities include:

- Gradual brace weaning by week 8.
- Focus on elbow AROM and pain-free strengthening.
- Continued lower extremity, core exercises, and shoulder strengthening without stressing the elbow.
- Introduce plyometric exercises and throwing mechanics if pain-free by week 10.

Criteria for progressing to Phase IV

- Pain-free shoulder and elbow movements.
- Adequate strength in shoulder and scapulothoracic muscles comparable to the uninvolved side.

Phase IV (12+ weeks)

- Returning to sport-level conditioning.
- Continuing lower extremity and core exercises as needed.
- Maintaining plyometrics and towel drills.

Criteria for starting a throwing program:

- Physician clearance 5/5 MMT
- Adequate shoulder strength, range of motion
- Pain-free performance of drills.
- Gradual initiation of throwing program, emphasizing mechanics and progression as per detailed protocol.
- Start with 50% effort, and when you reach a distance of 90 feet or more, incorporate a crow hop.