Elbow Fracture (Distal Humerus and/or Ulna) Repair Protocol

Mark Ayzenberg, MD, FAAOS

Phase I (Post-op until week 2) Protective Phase

- Postoperative splint or hinged elbow brace maintained as directed
- Emphasis on edema control with elevation and compression as appropriate
- Active range of motion of fingers, wrist, and shoulder encouraged immediately
- Typical early ROM focus on flexion and extension within protected arc 0-40
- Forearm pronation and supination as tolerated
- No lifting, pushing, pulling, or weight bearing through the involved upper extremity
- Pain and inflammation control emphasized

Phase II (Weeks 2–6) Early Motion Phase

- Gradual ROM advancement as tolerated with goal of 0-90 by week 6
- Progress elbow flexion, extension and pronosupination range of motion as tolerated
- Scar management and soft tissue mobilization as indicated
- No lifting or weight bearing
- Maintain cardiovascular conditioning with walking or stationary bike

Phase III (Weeks 6–10) Progressive Strengthening Phase

- Progress toward full elbow ROM
- Initiate gentle strengthening of elbow flexors and extensors
- Begin forearm pronator and supinator strengthening
- Grip and wrist strengthening exercises
- No impact, less than 2lb weight bearing

Phase IV (Weeks 10–16) Advanced Strengthening and Function

- Progress strengthening and endurance of elbow, forearm, and wrist musculature
- Advance closed-chain and functional upper-extremity strengthening
- Increase lifting and load-bearing activities gradually as tolerated at week 12
- Task-specific, occupational, or work-conditioning exercises as indicated
- Emphasis on restoring coordination, endurance, and neuromuscular control

Phase V (Weeks 16+) Return to Activity

- Return to unrestricted activities as tolerated once cleared by physician
- Sport-specific or work-specific progression as indicated
- Progression based on pain-free motion, strength symmetry, fracture healing, and functional confidence

Special Considerations:
• Progression may vary based on fracture type (olecranon, distal humerus, radial head/neck), fixation stability, and associated ligamentous injury.
• Some fracture patterns may require delayed motion or restricted forearm rotation.
• Return to activities and sport is variable, may take up to 1 year and may not be achievable in complex injuries.

Progression Criteria: Advancement through phases is criteria-based and dependent on pain control, restoration of motion, fracture healing, strength, stability, and patient compliance.