

## **Proximal Humerus Fracture ORIF Rehabilitation Protocol**

### **Phase I (Weeks 0-6)**

- Goals:
  - Minimize pain and inflammatory response
  - Immobilize arm to allow for healing
  - Achieve ROM goals
  - Establish stable scapula
  - Control forearm, wrist, hand swelling
- Therapeutic exercise:
  - Elbow, wrist and hand AROM (EWH)
  - Supine/Sitting passive forward elevation (PFE) to tolerance
  - Supine/Sitting passive external rotation (PER) to tolerance
    - T-stick in 0-20 deg flexion and 20 deg abduction
  - C-spine AROM, stretching
  - Ice
  - Positioning full time in sling
  - Shoulder shrugs and retractions (no weight)
  - Pain control modalities PRN
  - Aquatics PROM after week 3
  - Slowly progress PROM to full in all planes

### **Phase II (Weeks 6-12 weeks)**

- Goals:
  - Discontinue sling use
  - Achieve ROM goals
  - Progress pain free activity
  - Protect healing
- Therapeutic Exercise
  - Heat/ice PRN to help obtain motion
  - D/C sling as comfortable
  - Achieve PROM goals in FE (full)
  - Achieve PROM goals in ER at 20 deg and 90 deg abduction (full)
  - Initiate posterior capsule stretching
  - Isometrics, keeping elbow flexed to 90 degrees (Sub maximal, pain free)
  - Theraband scapula retractions
  - Aquatics
  - Mobilizations PRN
  - Trunk stabilization/strengthening
  - Start AAFE and progress to AFE
  
  - Start periscapular strengthening
    - Very low weight and high repetitions
- Cautions: Do not initiate rotator cuff strengthening until 12 weeks

### **Phase III (Weeks 12-16 weeks)**

- Goals:
  - Achieve staged ROM goals
  - Eliminate shoulder pain
  - Improve strength, endurance and power
  - Increase functional activities
- Therapeutic Exercise
  - Continue as above
  - ROM should be full in all planes
  - Progress isometrics
  - Advance scapula strengthening
  - CKC activities for dynamic stability of scapula deltoid and cuff
  - Initiate ER and IR strengthening
  - Progressive serratus anterior strengthening (isolated pain free, elbow by side)
  - Progress to isotonic dumbbell exercises for deltoid, supraspinatus
    - Up to 3 lbs max
  - Cautions
    - Do not initiate AAFE or rotator cuff strengthening until overall pain level is low
    - Assure normal scapulohumeral rhythm with AAFE and AFE
    - Strengthening should progress only without signs of increasing inflammation
    - Strengthening program should emphasize high repetitions, low weight and should be performed a maximum of 2x/day

### **Phase IV (4-6 months) – Return to Activity/Advanced Conditioning Goals**

- Goals
  - Normalize strength, endurance and power
  - Return to full ADL's and recreational activities POST-OP MONTHS 4-6
- Therapeutic Exercise
  - Stretching PRN
  - Continue deltoid/cuff/and scapula strengthening as above (5lbs max for isotonic strengthening) with the following progressions:
    - Prone isotonic strengthening PRN
    - Decreasing amounts of external stabilization provided to shoulder girdle
    - Integrate functional patterns
      - Increase speed of movements
    - Integrate kinesthetic awareness drills into strengthening activities
    - Decrease in rest time to improve endurance
  - Progressive CKC dynamic stability activities
  - Initiate isokinetic strengthening