

Proximal Humerus Fracture ORIF

Phase I: (Protective Phase)

Goals: Minimize pain and inflammatory response Achieve ROM goals Establish stable scapula

Weeks 0 to 6

- 1. Elbow, wrist and hand AROM (EWH)
- 2. Supine passive forward elevation in plane of scapula (PFE) to tolerance
 - a. 10 reps, 2 x day
- 3. Supine passive external rotation (PER) to tolerance
 - a. T-stick in 0-20 deg flexion and 20 deg abduction
 - b. 10 reps, 2 x day
- 4. C-spine AROM
- 5. Ice
- 6. Positioning full time in sling with abduction pillow
- 7. Shoulder shrugs and retractions (no weight)
- 8. ***Pain control modalities PRN
- 9. ***Aquatics PROM after sutures are out

10. Slowly progress PROM to full in all planes

- 11. Complications/Cautions:
 - a. If pain level is not dissipating, decrease intensity and volume of exercises.
 - b. Assure normal neurovascular status
 - c. No AAROM or AROM until 6 weeks
 - d. No pulley until 6 weeks

Weeks 6 to 12

- 1. Heat/ice PRN to help obtain motion
- 2. D/C sling as comfortable
- 3. Achieve PROM goals in FE (full)
- 4. Achieve PROM goals in ER at 20 deg and 90 deg abduction (full)
- 5. Initiate posterior capsule stretching
- 6. Isometrics, keeping elbow flexed to 90 degrees (Sub maximal, pain free)
- 7. Theraband scapula retractions
- 8. ***Aquatics
- 9. ***Mobilizations PRN

- 10.***Trunk stabilization/strengthening
- 11.Start AAFE and progress to AFE
- 12. Start periscapular strengthening
 - a. Very low weight and high repetitions

13. Cautions:

a. Do not initiate rotator cuff strengthening until 12 weeks

Phase II: (Progressive Strengthening)

Goals: Achieve staged ROM goals

Eliminate shoulder pain

Improve strength, endurance and power

Increase functional activities

Months 3 to 4

- 1. Continue as above
- 2. ROM should be full in all planes
- 3. Progress isometrics
- 4. Advance scapula strengthening
- 5. ***Mobilizations PRN
- 6. ***Aquatics for strengthening
- 7. ***CKC activities for dynamic stability of scapula deltoid and cuff
- 8. ***Trunk stabilization/strengthening
- 9. ***Light PNF D1, D2 and manual resistance for cuff/deltoid/scapula (rhythmic stabilization or slow reversal hold)
- 10.Initiate theraband ER and IR strengthening
- 11.Progressive serratus anterior strengthening (isolated pain free, elbow by side)
- 12. Progress to isotonic dumbbell exercises for deltoid, supraspinatus
 - a. Up to 3 lbs max

13.Cautions:

- a. Do not initiate AAFE or theraband rotator cuff strengthening until overall pain level is low
- b. Assure normal scapulohumeral rhythm with AAFE and AFE
- c. Strengthening program should progress only without signs of increasing inflammation
- d. Strengthening program should emphasize high repetitions, low weight and should be performed a maximum of 2x/day

Phase III: (Return to activity/advanced conditioning)

Goals: Normalize strength, endurance and power

Return to full ADL's and recreational activities

Month 4 to 6

- 1. Stretching PRN
- 2. Continue deltoid/cuff/and scapula strengthening as above (5lbs max for isotonic strengthening) with the following progressions:
 - a. Prone isotonic strengthening PRN
 - b. Decreasing amounts of external stabilization provided to shoulder girdle
 - c. Integrate functional patterns
 - d. Increase speed of movements
 - e. Integrate kinesthetic awareness drills into strengthening activities
 - f. Decrease in rest time to improve endurance
- 3. May begin tennis ground stroke/batting/return to golf after completing strengthening progression
- 4. ***Progressive CKC dynamic stability activities
- 5. ***Impulse
- 6. ***Initiate isokinetic strengthening
- 7. ***Mobilizations PRN
- 8. ***Trunk stabilization/strengthening

Month 6 to 8

- 1. Stretching PRN
- 2. Continue deltoid/cuff/scapula strengthening program
- 3. Initiate plyometric program (if needed)
 - a. Do not begin until 5/5 MMT for rotator cuff and scapula
 - b. QD at most
 - c. Begin with beach ball/tennis ball progressing to weighted balls
 - d. 2-handed tosses waist level
 - i. Overhead
 - ii. Diagonal
 - e. 1-handed stability drills
 - f. 1-handed tosses (vary amount of abduction, UE support, amount of protected ER)
- 4. May begin Interval Throwing Program after 3-6 weeks of plyometrics
- 5. Initiate progressive replication of demanding ADL/work activities

- 1. PROM WNL for ADL's/work/sports
- 2. MMT 5/5shoulder girdle and/or satisfactory isokinetic test
- 3. Complete plyometric program, if applicable
- 4. Complete interval return to sport program, if applicable