
Proximal Humerus Fracture – Non-op

Phase I: (Protective Phase)

Goals: Minimize pain and inflammatory response

Achieve ROM goals

Establish stable scapula

Weeks 0 to 4

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. Slowly progress PROM to full in all planes**
10. 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 4 weeks (6 weeks for delayed healing)**
 - d. No pulley until 4 weeks (6 weeks for delayed healing).**

Weeks 4 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. ***Mobilizations PRN
9. ***Trunk stabilization/strengthening
10. Start AAFE and progress to AFE
11. Start periscapular strengthening
 - a. Very low weight and high repetitions
12. 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

Discharge/Return to sport criteria

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