

Dr. Larry “Chip” Bankston

## **Hemiarthroplasty Protocol after Proximal Humerus Fracture**

### **Recommendations**

- Wear sling for 4 - 6 weeks.
- No driving until 6 weeks post-op.
- Encourage PROM at home daily by family member for the first 4 - 6 weeks.
- Have patient ice shoulder 3 - 4 times daily in supported abduction to facilitate circulation and decrease pain.
- No shoulder extension for 4 weeks to protect the anterior deltoid.
- Return to work to be determined on an individual basis by the physician.

### **Post-Op Protocol**

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| <b>0 - 4 Weeks</b> | <ul style="list-style-type: none"><li>• Instruct family member in proper PROM techniques and ROM limitations (Have them perform a supervised demonstration!).</li><li>• Emphasize proper posture when sitting and standing.</li><li>• PROM limits dictated by physician. If no dictation/communication available at time of initial visit then restrict ROM to 90° FE, 45° Abd, and 20° ER. No shoulder extension.</li></ul> <ol style="list-style-type: none"><li>1. Supine passive external rotation with wand. Make sure patient keeps elbow supported and flexed to 90°.</li><li>2. Soft tissue massage once incision has healed.</li><li>3. AROM of elbow, wrist and hand with arm supported.</li></ol> |
| <b>2 - 4 Weeks</b> | <ol style="list-style-type: none"><li>1. Sidelying scapular retraction/protraction initiated</li><li>2. Sidelying “scapular clocks”</li><li>3. PNF scapular patterns for anterior elevation/posterior depression emphasized for future active exercises</li><li>4. May begin gentle thoracic mobilization</li></ol>  |
| <b>4 - 6 Weeks</b> | <ul style="list-style-type: none"><li>• Wean from sling (night time) after 4 weeks, discontinue completely by 6 weeks.</li><li>• At 4 weeks may begin to progress ROM and by 6 weeks ROM will be to tolerance. Consult MD earlier if patient not achieving MD imposed ROM limits with ease</li></ul>   |

1. Progress to self-assist PROM including UBE (avoid extremes of extension), pulleys, etc.
2. Begin gentle manual resistance for scapular protraction/retraction and elevation/depression.
3. Gentle sub-maximal isometrics all planes.
4. Gentle open kinetic chain rhythmic stabilization progression in supine.
5. Begin gentle closed kinetic chain (CKC) balance and stabilization progressions.

#### 6 - 8 Weeks

##### • **Begin AAROM within pain-free ROM.**

1. Self-assist forward elevation with wand with slow progression from supine to standing position.
2. Begin general cardiovascular training (as appropriate) including walking, stationary cycling, etc. Can begin earlier depending on fitness level and ambition of patient.

#### 8 - 10 Weeks

##### • **Begin AROM within pain-free ROM.**

1. Begin AROM with emphasis on rotator cuff exercises (without resistance) including standing forward elevation ( $\leq 90^\circ$ ) and side lying internal and external rotation. Progress to prone horizontal abduction (thumbs up) at  $100^\circ$  and  $90^\circ$  of abduction, prone external rotation in  $90/90^\circ$  position, and prone extension, all within pain-free ROM.
2. Initiate scapulothoracic strengthening exercises including supine ceiling punches and seated rows. Progress to prone horizontal abduction (thumbs up) at  $150^\circ$  and  $90^\circ$  of abduction (last  $20^\circ$  of available range only).

#### 10 - 12 Weeks

##### • **AROM WFL by 12 weeks.**

1. Progress self-stretching exercises including door frame hang for forward elevation, corner stretch for abduction/external rotation, etc.
2. Begin upper extremity endurance training on UBE as appropriate.

#### 12 - 14 Weeks

##### • **Begin RROM within pain-free ROM.**

##### • **Initiate gentle internal rotation stretching behind back.**

1. Begin PRE's with hand weights, theraband, etc. as tolerated, focusing on rotator cuff and scapulothoracic strengthening within pain-free ROM.
2. Begin isokinetic internal and external rotation ( $0^\circ$  abduction  $\rightarrow$  scapular plane  $\rightarrow$   $90/90^\circ$  position progression).
3. Progress CKC exercises including seated press-ups, step-ups, BAPS board, treadmill and push-ups with a plus (wall to floor progression).
4. Initiate manual resistive exercises including PNF techniques.
5. Begin work-specific activities as appropriate.

#### 14 - 16 Weeks

##### • **Emphasize concepts of frequency, duration and intensity of training.**

1. Progress PRE's as tolerated.

2. Begin low-level plyometric progression including 2-hand plyoback ball toss, ball dribbling, etc.
3. Initiate sport-specific activities including interval golf program, racquet strokes, etc.