



## Proximal Humerus Fracture Rehabilitation Protocol

Your shoulder rehabilitation program begins while you are in the hospital. Early goals are to reduce shoulder stiffness and pain. The following steps can help you have optimal recovery:

- Early and continuous physical therapy
- Adequate pain control to tolerate exercises
- Edema control to reduce swelling (ice/sling)
- Early restoration of passive shoulder flexion to full as tolerated

**Passive Range of Motion (PROM):** PROM for all patients having undergone a TSA/HHR should be defined as ROM that is provided by an external source (therapist, instructed family member, or other qualified personnel) with the intent to gain ROM without placing undue stress on either soft tissue structures and/or the surgical repair. PROM is not stretching!

### **Phase I - Immediate Post Surgical (0-week 4)**

#### **Goals:**

Decrease pain and inflammation, increase passive range of motion (PROM) of shoulder, educate regarding joint protection, independent with transfers and ADLs.

#### **Precautions:**

- Sling should be worn for **4 to 6 weeks** (including while sleeping) depending on progression and surgeon preference
- While lying supine, a small pillow or towel roll should be placed behind the elbow to avoid shoulder hyperextension / anterior capsule stretch / subscapularis stretch. (**When lying supine patient should be instructed to always be able to visualize their elbow. This ensures they are not extending their shoulder past neutral.**) – This should be maintained for 6-8 weeks post-surgically.
- **Avoid shoulder hyperextension / anterior capsule / subscapularis stretch.**
- Avoid lifting objects and AROM, shoulder motion behind the back, sudden movements and supporting body weight by involved hand.
- **Limit external rotation to neutral (0 degrees) and any active internal rotation through week 4.**
- Keep incision clean and dry (no soaking for 2 weeks)

#### **Exercises:**

Passive forward flexion in supine to tolerance. Goal of 0-90 degrees by end of week 2 to allow wound healing. Progress to full as soon as possible.

Pendulums

Sub-maximal, pain-free isometric shoulder exercise in neutral

Scapular musculature sets/isometrics

Pulleys at week 3



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Active distal extremity exercise (elbow, wrist, hand)  
Cryotherapy as much as able for pain and inflammation

### **Phase II - Early Strengthening (Weeks 4-6)**

#### **Goals:**

Continue PROM progression until flexion PROM is restored  
Introduce AAROM  
Control pain and inflammation  
Do not overstress healing tissue  
Allow continued healing of soft tissue (subscapularis)  
Re-establish dynamic shoulder stability and scapular mobility

#### **Criteria for progression to next phase:**

Tolerates P/AAROM, isometric program  
Has achieved 140 degrees PROM flexion, 120 degrees PROM abd

#### **Week 3:**

Continue with PROM, AAROM, Isometrics  
Scapular strengthening  
Begin assisted horizontal adduction  
Progress distal extremity exercises with light resistance as appropriate  
Gentle joint mobilizations as indicated  
Initiate rhythmic stabilization  
Continue use of cryotherapy PRN

#### **Week 4:**

Begin active FF, IR, ER, and ABD in supine position in pain-free ROM  
Progress scapular strengthening exercises  
Begin isometrics of rotator cuff and periscapular musculature

### **Phase III - Moderate Strengthening (weeks 6-12):**

#### **Goals:**

Full PROM forward elevation  
Active flexion in the plane of the scapula to 120 degrees without shrug  
Gradual restoration of shoulder strength, power and endurance  
Gentle increase external rotation  
Optimize neuromuscular control  
Gradual returns to functional ADLs

#### **Precautions:**

No heavy lifting of objects (no heavier than 5 lbs.)  
No sudden lifting or pushing activities or jereking motions

#### **Week 6:**

Increase anti-gravity internal/external-flexion, abduction  
Active external rotation in modified neutral



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Initiate assisted IR behind back (light)

### **Week 10-12:**

Begin resisted flexion, ABD, ER

Progress internal rotation behind back from AAROM to AROM as ROM allows. (Goal of L2, but avoid stress on the anterior capsule)

### **Phase IV - Advanced Strengthening (weeks 12 to 6 months):**

#### **Goals:**

Maintain full non-painful AROM

Gradual return to more advanced functional activities

Improve muscular strength, power and endurance

Progress closed chain exercises as appropriate

#### **Precautions:**

Avoid exercise and functional activities that put stress on the anterior capsule and surrounding structures (example: no combined ER and ABD above 80 degrees of abduction)

Ensure gradual progression of strengthening

#### **Criteria for discharge from skilled therapy:**

Patient able to maintain full non-painful AROM

Normal ADL function

Independent HEP

#### **4-6 months:**

Return to recreational hobbies, gardening, sports, golf, doubles tennis as released by the Surgeon.