



Proximal Humerus Fractures: Hemiarthroplasty

Post-Operative Rehabilitation Protocol

Lake Cook Orthopedics

*****Optimum outcome following hemiarthroplasty for a proximal humerus fracture is contingent upon healing of the tuberosities. Estimated healing time is 6-8 weeks.*****

The intent of this protocol is to provide the clinician with a guideline for the postoperative rehabilitation course of a patient that has undergone a surgical repair of a proximal humerus fracture with intramedullary fixation. This protocol is no means intended to be a substitute for one's clinical decision making regarding the progression of a patient's post-operative course based on their physical exam/findings, individual progress, and/or the presence of post-operative complications. If a clinician requires assistance in the progression of a post-operative patient they should consult with the referring surgeon.

Phase 1: **Time Frame:** 0-6 weeks

Immobilization: Sling Immobilizer / Brace with 15 degrees abduction x 6 weeks. Wear continuously except for therapy, HEP and hygiene / bathing.

Restrictions: Avoid AAROM, AROM and strengthening. Limit FF to 140, No IR, ER to Neutral. ROM should be a slow stretch (not forceful).

Exercises: Gripping exercises, elbow, wrist and finger ROM. Shoulder pendulums (slow, small circles), PROM for shoulder in line with restrictions. Instruct on HEP to perform twice daily.

Phase 2: **Time Frame:** 6-10 weeks

Immobilization: None

Restrictions: PROM only until 6 weeks. Allow full ROM for FF, limit IR and ER to 30 degrees respectively. No strengthening. Instruct patient to continue to protect shoulder. No strengthening.

Exercises: Gradually increases PROM exercises in line with restrictions. Add AAROM at 6 weeks and AROM at 8 weeks. Modalities used as needed.

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Phase 3: **Time Frame:** 10-14 weeks

Immobilization: None

Restrictions: Exercise advancement should be gradual and in slow increments while avoiding pain. If patient develops pain, drop back to early phase of rehabilitation, until pain free. Allow full ROM without restrictions.

Exercises: Continue with shoulder PROM, AAROM and AROM (Goal is 75% or greater of normal PROM by 12 weeks). At 10 weeks begin shoulder isometric strengthening with arms at side (IR, ER, scapular stabilization). At 12 weeks add shoulder resistance strengthening exercises. Progression should be gradual and in slow increments while avoiding pain.

Phase 4: **Time Frame:** 14-26 weeks

Immobilization: None

Restrictions: No specific restrictions. Patients ROM, strength and endurance should be advanced progressively while avoiding pain.

Exercises: ROM should be returning to normal; if not, continue to address with stretching and a HEP. Progressive upper-body strengthening may be more aggressive after 16 weeks. Add plyometric training for athletes at 18 weeks. Add exercises simulating work requirements or sport at 18 weeks as part of return to work / sport program.

Phase 5: **Time Frame:** 26+ weeks

Goal: Restore normal shoulder function and progress to return to sport or return to work.

Restrictions: No specific restrictions. Advance progressively while avoiding pain. If the patient develops pain they are to return to earlier stage of rehabilitation.

Exercises: Aggressive upper-body strengthening and with initiation of plyometric training and sports or work specific training. Consider work conditioning program based on patients job requirements and patient motivation.