



ORIF Proximal Humerus Fractures

General Rehabilitation Guidelines

- Tuberosities are repaired and bony healing must occur before stress is applied to rotator cuff tendons
- Early motion may result in tuberosity migration causing stiffness from mechanical impingement and weakness from abnormal soft tissue tension
- The current trend in rehabilitating these injuries is to go slower rather than quicker and promote anatomic tuberosity healing as it is much easier to treat postoperative stiffness with a manipulation than it is to treat tuberosity malunion with a second reconstruction procedure.

Precautions

- No external rotation past 40 deg for 6 weeks
- No active internal rotation for 6 weeks
- No cross body adduction for 6 weeks
- No lifting/pushing/pulling > 5 lbs for first 6 weeks

Inpatient: (0-4 days)

Instruct to don and doff sling or shoulder immobilizer

- Shoulder should be completely immobilized at all times except to change

Instruct on proper use of ice or PolarCare

- 20-30 minutes at a time, several times per day especially after exercises

Instruct in home program, and begin, cervical, elbow and wrist range of motion/grip strengthening

Arrange for outpatient physical therapy follow-up to begin on day after office follow-up

Other Instructions

- dry gauze to wound until dressing totally dry
- may shower at 10 days but no bath or hot tub for 3 weeks
- no anti-inflammatory medications x 6 weeks unless on ASA for other reasons

Outpatient Physiotherapy Phase 1: (Hospital discharge to Week 4)

ROM

- Continue cervical, elbow and wrist ROM
- Pendulum exercises
- Passive forward elevation to 90 deg
- Passive ER to 30 deg
- Passive IR as tolerated (not behind back)

Strengthening

- No cuff strengthening
- Begin and instruct in program of postural correction
- May begin scapular retraction and depression

Sling

- Arm in sling at all times for 2 weeks except for exercises and bathing (includes nighttime)

Other

- Continue cryotherapy
- Incision mobilization and desensitization
- Modalities to decrease pain and inflammation

Outpatient Physiotherapy Phase 2: (Weeks 4-8)

ROM

- Instruct in home program and begin self-assisted forward elevation to 90 deg and progress in 20 deg increments per week
 - May use pulleys
- Instruct in home program and begin self-assisted ER to 40 deg
- IR in scapular plane as tolerated (No IR behind back)
- Grade I-II glenohumeral and scapulothoracic mobilizations
- No cross body adduction

NOTES: Hydrotherapy program is okay provided the limits of no active internal rotation and ER limit to 40 deg are kept. Should not begin prior to week 3, so wound is fully healed.

Strength

- No cuff strengthening
- Continue scapular retraction and depression
- Lower extremity aerobic conditioning

Sling

- May discontinue use of the sling if comfortable

Other

- Continue modalities to decrease pain and inflammation
- Incision mobilization and desensitization techniques
- Continue cryotherapy as necessary

Outpatient Physiotherapy Phase 3: (Weeks 8-12)**ROM**

- Progressive return to full forward elevation and external rotation
- May begin posterior capsular stretching program
- May begin IR behind back
- Grade III-IV glenohumeral and scapulothoracic mobilizations
- Begin anterior chest wall stretches (pec minor)

Strength

- Begin submaximal isometrics in flexion, abduction, IR, ER and extension
- Add progressive isotonic with low resistance, high repetitions as tolerated
- Progressive two-hand supine
- Emphasize anterior deltoid strength and scapular stabilization
- Emphasize trapezius, serratus anterior force couple rehabilitation to create stable scapular base
- Assess for and correct compensatory movement patterns
- UBE with low resistance
- Continue aerobic conditioning

Outpatient Physiotherapy Phase 4: (> Week 12)**ROM**

- Progressive return to full motion in all planes
- Emphasize posterior capsule stretching
- Maintenance home flexibility program

Strength

- Continue rotator cuff and scapular strengthening program
 - Progressive increase in resistance as strength improves
- Continue UBE with progressive resistance as tolerated
- Maintenance home exercise program
- Recreation/vocation specific rehabilitation
- Maintenance aerobic conditioning program