

Hemiarthroplasty for Proximal Humerus Fracture

Precautions:

- ***Basis***

- o Tuberosities are repaired to prosthesis shaft and bony healing must occur before stress is applied to rotator cuff tendons

- o Recent literature suggests that early motion may result in tuberosity migration

- ! Tuberosity migration causes stiffness from mechanical impingement

- ! Tuberosity migration causes weakness from abnormal soft tissue tension

- o The current trend in rehabilitating these injuries is to go slower rather than quicker and promote anatomic tuberosity healing

- ! It is much easier to treat postoperative stiffness with a manipulation than it is to treat tuberosity malunion with a second reconstruction procedure

- ***Precautions***

- o No external rotation past 40° for 6 weeks

- o No active internal rotation for 6 weeks

- o No cross body adduction for 6 weeks

- o No lifting/pushing/pulling > 5lb for first 6 weeks

- o Long Term: no forceful jerking movements (starting outboard motor, push mower or chain saw; no repetitive impact loading (chopping wood))

Inpatient: (0-4 days)

- Instruct to don and doff sling or shoulder immobilizer

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

- Instruct on proper use of ice or cryocuff

- o 20-30 minutes at a time, several times per day

- o should be done especially after exercises

- Instruct in home program, and begin, cervical, elbow and wrist range of motion

- Instruct in home program, and begin grip strengthening

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

Other Instructions

- dry gauze to wound q day until dressing totally dry, then cover prn

- may shower at 7 days but no bath or hot tub for 3 weeks

- no anti-inflammatory medications x 6 weeks unless on ASA for other reasons

Outpatient Phase 1: (Hospital discharge ñ Week 4)

- ***ROM***

- o Continue cervical, elbow and wrist ROM

- o Pendulum exercises only
- o No passive ROM or self-assisted ROM yet
- o No mobilizations
- **Strengthening**
- o No cuff strengthening
- o Begin and instruct in program of postural correction
- o May begin scapular retraction and depression
- **Sling**
- o Arm in sling at all times except for exercises and bathing
- o Includes sling at night
- **Other**
- o Continue cryotherapy
- o Incision mobilization and desensitization
- o Modalities to decrease pain and inflammation

Outpatient Phase 2: (Weeks 5-8)

- **ROM**
- o Instruct in home program and begin self-assisted forward elevation to 90 degrees and progress in 20 degrees increments per week
- ! May use pulleys
- o Instruct in home program and begin self-assisted ER to 40 degrees
- o IR in scapular plane as tolerated
- o No IR behind back
- o No cross body adduction
- o Grade I-II scapulothoracic and glenohumeral mobilizations
- o **NOTES:** Hydrotherapy program is okay in provided the limits of no active internal rotation and ER limit to 40 degrees are kept. Should not begin prior to week 3 so wound is fully healed
- **Strength**
- o No cuff strengthening
- o Continue scapular retraction and depression
- o Lower extremity aerobic conditioning
- **Sling**
- o May discontinue use of the sling in the daytime but continue to wear at night through the six week mark
- **Other**
- o Continue modalities to decrease pain and inflammation
- o Incision mobilization and desensitization techniques

- o Continue cryotherapy as necessary

Outpatient Phase 3: (Weeks 9-12)

- ***ROM***

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

- ***Strength***

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

Outpatient Phase IV: (> Week 12)

- ***ROM***

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

- ***Strength***

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