# **Rehabilitation Protocol**

Hemiarthroplasty

Frank B. Norberg, MD Kayla Brown, PA-C Georgia Muelken, PA-C Office: (952) 946-9777 Fax: (952)-946-9888

Post-op appointments: 1 WEEK, 5 WEEKS, 10 WEEKS, 16 WEEKS

## PHASE I (WEEKS 0-6) JOINT PROTECTION

#### Immobilization:

- 1-4 WEEKS: Sling should be worn continuously and should only be taken off for exercises and showering.
- **5 WEEKS:** Discontinue sling. The use of the sling may be extended for up to 6 weeks in some situations such as revisions.

#### **Precautions:**

- No submersion of incision x 2 weeks. May shower and get incision wet on post op day #3.
- No supporting body weight with involved shoulder until 6-8 weeks post op.
- Can use 1-2lbs in hand with elbow at side.

### Range of Motion:

• Goals: 130 degrees forward flexion, 30 degrees external rotation with elbow at side.

### **Therapeutic Exercise:**

- 1-4 WEEKS: PROM (ER/IR) Table slides, passive assisted external rotation. Elbow and wrist flexion/extension
- **5-6 WEEKS:** AAROM (wand), gentle resisted exercise (elbow, wrist, hand), isometric deltoid activation. At 6 weeks begin gentle IR (not to exceed 50 degrees).

### **Cardiovascular Fitness:**

- Stationary Bike
- Walking

### **Progression to Phase II**

- Patient tolerates shoulder PROM and ROM program for elbow, wrist, hand
- Patient demonstrates the ability to isometrically activate all components of the deltoid and periscapular musculature in the scapular plane

### PHASE II (WEEKS 6-12) EARLY STRENGHTHENING

### **Precautions:**

- Avoid shoulder hyperextension
- In the presence of poor shoulder mechanics avoid repetitive AROM exercises/activity
- Restrict lifting of objects to no heavier than 1-2lbs
- Can support body weight with operative shoulder at 6-8 weeks

### Range of Motion:

- **6-8 WEEKS:** Shoulder AAROM/AROM as appropriate. Forward flexion and elevation in scapular plane in supine with progression to sitting/standing. ER and IR in the scapular plane in supine with progression to sitting/standing.
- **9-12 WEEKS:** AROM supine forward flexion and elevation in the plane of the scapula with light weights of 1-2lbs at varying degrees of trunk elevation.

### **Therapeutic Exercise:**

- 6-8 WEEKS: GH IR and ER submaximal pain-free isometrics. Initiate gentle
  scapulothoracic rhythmic stabilization and alternating isometrics in supine. Begin gentle
  periscapular and deltoid submaximal pain-free isotonic strengthening usually at the end
  of 8 weeks. Progress strengthening of elbow, wrist, hand. Patient can resume use of
  walker and start weightbearing on operative shoulder.
- **9-12 WEEKS:** Continue with above exercises and functional activity progression. Progress to gentle GH IR and ER isotonic strengthening exercises.

#### Cardiovascular Fitness:

- Stationary Bike
- Walking

### **Progression to Phase III**

- Improving function of shoulder
- Patient demonstrates the ability to isotonically activate all components of the deltoid and periscapular musculature and is gaining strength.

# PHASE III (WEEKS 12-16) MODERATE STRENGHTHENING

#### Goals:

- Enhance functional use of operative shoulder and advance functional activities
- Enhance shoulder mechanics, muscular strength, power, and endurance

#### **Precautions:**

- No lifting objects heavier than 10-15lbs waist to shoulder level.
- No sudden lifting or pushing activities

### Range of Motion:

Continue with previous program as indicated

### **Therapeutic Exercise:**

Progress to gentle resisted flexion, elevation in standing as appropriate

#### **Cardiovascular Fitness:**

PT/Patient discretion

### **Progression to Phase IV**

 Patient demonstrates moderate functional return and minor to no difficulties with basic ADLs

# PHASE IV (MONTHS 4+) HOME EXERCISE PROGRAM

#### Goals:

• Home exercise performed 3-4x week with focus on functional strength gains. Progress towards activities within limits of 25-50lbs below shoulder level and 25lbs above shoulder level. Patient can progress to functional activity as tolerated and goals of phase III are met.

### Discharge from skilled therapy:

 Patient is able to maintain pain-free shoulder AROM, demonstrating proper shoulder mechanics (typically 90-130 degrees of shoulder flexion/elevation and 30-45 degrees of external rotations).

#### Lifetime Precautions

 Risk of fracturing acromion and spine of scapula with increased force due to high intensity activity or trauma from falling. Continuous 25lbs weight restriction overhead, advise patient about associated risks.