

## Shoulder Arthroplasty Rehabilitation Protocol (Non-fracture Protocol)

(Please Check One) ☐ Standard Total ☐ Reverse Total ☐ Hemi-arthroplasty

### Pre-operative Evaluation and Preparation

- Precautions
- Course of rehabilitation
- Home exercise program
- Baseline range of motion measurement/strength assessment of bilateral shoulders, upper extremities

### Post-operative Evaluation

- Passive range of motion of involved shoulder
- **Precautions:** Check with Dr. Lavery to determine any special requirements of the specific technique used
- **Protocol assumes that the shoulder is stable, the rotator cuff is in good condition and that no unusual surgical procedure was used**

### Phase I: In-patient Day of Surgery (Days 1 to 3)

#### Brace

- **UltraSling at all times except exercises**

#### Range of Motion

- **Supine/Reclined:** Passive flexion to 90° of the involved arm with the uninvolved as the moving power or therapist in bed
- **Supine/Reclined:** Passive external rotation to 10° with passive abduction to 30° using the uninvolved arm as moving power  
(Both of the above should be performed five reps, 5 to 10 second hold, three to four times per day.)
- Active range of motion of elbow, wrist and hand on involved side
- **Standing:** Pendulum exercises (start with one minute session and progress to two minute session); **do in sling initially**

### Post-operative Day 1

- Same as day of surgery, except additionally performed by physical therapist
- Gentle passive abduction to 30° reclined
- Gentle passive forward flexion to 60 to 90° (any specific surgeon limit \_\_\_\_\_)
- **Range of Motion:** Active, hand to elbow; continue as above

### Discharge Criteria

- Passive flexion of 60 to 90°
- Passive external rotation to 10°
- Able to perform home exercise program independently. Home exercise program consists of passive range of motion from day four to day thirteen; (home exercise program to be performed three to four times per day)
- Medically stable

## Phase II: Post-operative (Days 4 to 14)

### Range of Motion

- Continue passive range of motion exercises as above.
- Active range of motion of elbow, wrist and hand.
- Gentle deltoid/trapezius isometrics.

*See special precautions if Hemiarthroplasty for fracture.*

## Phase III: Active Assisted Range of Motion (Weeks 3 to 6)

### Brace

- Simple sling, until week seven
- Wear at night and when not sitting

### Range of Motion

- Continue passive range of motion exercises as above

### Active Assisted Range of Motion

- **Assisted Flexion:** Supine – bring operated arm into flexion with the uninvolved arm. Additional method is standing wall finger climbing, with assistance, no greater than 90° until after six weeks.
- **Assisted External Rotation:** Standing with operated arm's hand holding onto door handle with elbow flexed 90°. With elbow against side, pivot away from door to assist external rotation of the shoulder to maximum of 20° (or check with Dr. Lavery). May also do with a stick.
- **Assisted Internal Rotation:** Gradual behind the arm with wand or towel assist. **No active.**
- **Assisted Abduction:** Supine with a wand. Use the good hand to gently slide the involved hand and arm out into abduction as tolerated. Goal of about 90° at six weeks out. **May also do reclined.**
- Active range of motion of elbow, wrist and hand
- Gentle deltoid/trapezius isometrics (except internal rotation)

### Exercise *(Isometric weeks four through six unless otherwise specified)*

- Four-way wall isometrics (extensors, flexors, abductors, external rotators)
- Limits on internal rotator post six weeks

## Phase III (Weeks 7 to 12)

### Goals

- Good painless active assistive range of motion
- Forward flexion 140/150°
- Light activities of daily living

### Range of Motion

- Begin active assistive range of motion with emphasis on terminal stretching; first work on forward flexion above 90°
- Active range of motion elbow to hand
- Light Thera-Band strengthening exercises in all directions except internal rotation
- Moderate pain free activities of daily living to shoulder height
- Exercise modalities per therapist discretion (pool, plyometrics, etc.)
- **Wall Walking or Pulley:** Both for flexion and for 45° abduction (5 to 10 reps, three times a day)

### Exercise

- Progressive resistance at week seven (except isometric **only** internal rotation)

## Phase IV (Week 12 and Beyond)

### Exercise

- Strengthening program (progressive resistance exercise, proprioceptive neuromuscular facilitation, Isokinetics, etc.) for all shoulder musculature
- Full overhead activities of daily living as tolerated

## **Phase V: Return to Full Activity (4 to 6 Months)**

### **Range of Motion**

- Full painless active range of motion
- Expect about 160° forward facing for total shoulder arthroplasty, 140° for reverse, between these for Hemi

### **Modifications For Hemiarthroplasty as a Result of a Humerus Fracture**

See specific precautions per individual case. Passive range of motion may only be allowed at six weeks depending upon fracture configuration and bone stock.

Precautions: \_\_\_\_\_  
\_\_\_\_\_

### **Modifications For Hemiarthroplasty for Massive, Irreparable Rotator Cuff Tear**

Progress with passive range of motion as rapidly as possible (no limitations unless otherwise specified), with initiation of strengthening (isometric and kinetic) once patient has painless passive range of motion. Limits to external rotation passively to 20°. No active internal rotation until six weeks post-op.