



## REVERSE SHOULDER ARTHROPLASTY

### REHABILITATION PROTOCOL

#### REHABILITATION PROGRESSION

The following is a general guideline. Please consult Dr. Syal/Dr. Soswa if there is any uncertainty concerning advancement of a patient to the next phase of rehabilitation. Rehabilitation should be individualized according to patient status.

#### PRECAUTIONS

- functional shoulder brace to be worn immediately post-op and continued for first 6 weeks
- DO NOT attempt to pick up heavy objects with the hand of the operative side - may damage repair
- DO NOT elevate surgical arm above 70° in any plane for the first 4 weeks post-op
- precautions should be implemented for the first 12 wk postoperatively unless advised differently
- NO shoulder motion behind lower back and hip (no combined shoulder adduction, internal rotation [IR], and extension)
- NO glenohumeral (GH) joint extension beyond neutral

#### PHASE I (WEEK 0-6)

- allow healing of soft tissue & keep wound dry for 2 weeks
- arm is immobilized in neutral abduction & rotation for a period of 4 weeks
- weeks 0-3: active mobility of the hand, fingers and elbow is allowed, pendulum exercises begun & passive abduction of the arm is permitted starting from a resting position of 30° abduction
- sling should be used for sleeping and removed gradually over the course of the 4 weeks, for periods throughout the day - SLING MAY BE D/C at 4 WEEKS
- while lying supine a small pillow or towel roll should be placed behind the elbow to avoid shoulder hyperextension
- avoid shoulder active ROM & no lifting of objects
- begin sub-maximal pain-free deltoid isometrics in scapular plane avoid shoulder extension when isolating posterior deltoid)
- ROM goals:
  - ▶ 90° PROM flexion & abduction | 30° PROM ER in scapular plane
  - ▶ 30° PROM IR in scapular plane (measured @ 30° abduction)
- 3 times daily elbow, hand and wrist ROM exercises to prevent stiffness
- cryotherapy for shoulder & modalities for inflammation as needed

#### PHASE 2 (WEEKS 6-12)

- active rehabilitation is initiated emphasizing elevation and rotation
- continue to avoid shoulder hyperextension & frequent cryotherapy
- active mobility is permitted in elevation and internal rotation
- begin AAROM: ER and IR in the scapular plane in supine with progression to sitting/standing with progression to isotonic strengthening
- begin gentle GH IR and ER sub-maximal pain-free isometrics
- Initiate gentle scapulothoracic rhythmic stabilization and alternating isometrics in supine as appropriate



## PHASE 2 CONTINUED (WEEKS 6-12)

- progress scapular strengthening exercises & stretching program
- begin shoulder sub-maximal shoulder isotonic in neutral
- initiate glenohumeral (GH) & scapulothoracic (ST) rhythmic stabilization

## PHASE 3 (WEEKS 12-16)

- should have an established HEP (home exercise program)
- continue AAROM /AROM as needed, advance PROM to stretching
- improve scapulohumeral biomechanics
- scapular muscle strengthening (serratus and trapezius) in appropriate positions depending on strength (side-lying, prone or standing)
- enhance functional use of operative extremity and advance functional activities
- enhance shoulder mechanics, muscular strength, power, and endurance
- theraband - concentric and eccentric within pain-free ranges, all planes, light free weights, aquatherapy as needed
- progressive supine active elevation strengthening (anterior deltoid) with light weights (0.5-1.5 kg) at variable degrees of elevation (max 2.7 kg - 6 lb)
- ROM goals:
  - ▶ 80-120° PROM forward elevation
  - ▶ 120° PROM abduction supine
  - ▶ 30° PROM ER in scapular plane
  - ▶ able to actively elevate shoulder against gravity to at least 120°

## PHASE 4 (WEEKS 16+)

- maintain non painful AROM
- enhance functional use of upper extremity
- patient on a HEP by this point to be performed 3-4/week
- gradually progress strengthening program
- gradual return to moderately challenging functional activities
- patient is on a home exercise program by this point to be performed 3 to 4 times per week
- gradually progress strengthening program
- gradual return to moderately challenging functional activities
- return to recreational hobbies/sports

### SOURCES:

- Boudreau S, et al. Rehabilitation Following Reverse Total Shoulder Arthroplasty. J Orthop Sports Physical Therapy 2007;37:734-743