## Reverse Total Shoulder Arthroplasty

## SHOULDER DISLOCATION PRECAUTIONS

For the first 12 weeks

- No shoulder motion behind back. (NO combined shoulder adduction, internal rotation, and extension.)
- No glenohumeral (GH) extension beyond neutral.


## Phase I: Immediate PostSurgical Phase/Joint Protection (Day 1-6 weeks)

## GOALS

- Patient and family independent with:
- Joint protection
- Passive range of motion (PROM)
- Assisting with putting on/taking off sling and clothing
- Assisting with home exercise program (HEP)
- Cryotherapy
- Promote healing of soft tissue / maintain the integrity of the replaced joint.
- Enhance PROM.
- Restore AROM of elbow/wrist/hand.
- Independent with ADLs with modifications.
- Independent with bed mobility, transfers and ambulation or as per pre-surgical status


## PRECAUTIONS

- Sling is worn for 3-4 weeks postoperatively. The use of a sling often may be extended for a total of 6 weeks, if the current rTSA procedure is a revision surgery.
- While lying supine, the distal humerus / elbow should be supported by a pillow or towel roll to avoid shoulder extension. Patients should be advised to "always be able to visualize their elbow while lying supine."
- No shoulder AROM.
- No lifting of objects with operative extremity.
- No supporting of body weight with involved extremity.
- Keep incision clean and dry (no soaking/wetting for 2 weeks); No whirlpool, Jacuzzi, ocean/lake wading for 4 weeks.


## DAYS 1-4

- Begin PROM in supine after complete resolution of interscalene block.
- Forward flexion and elevation in the scapular plane in supine to 90 degrees.
- ER in scapular plane to available ROM as indicated by operative findings. Typically around 20-30 degrees.
- No IR ROM.
- A/AAROM of cervical spine, elbow, wrist, and hand.
- Begin periscapular sub-maximal pain-free isometrics in the scapular plane
- Continuous cryotherapy for first 72 hours postoperatively, then frequent application (4-5 times a day for about 20 minutes).
- Ensure proper sling fit/alignment/ use.
- Instruct patient in proper positioning, posture, initial home exercise program
- Provide patient/family with written home program including exercises and protocol information


## DAYS 5 TO 21

- Continue all exercises as above.
- Begin sub-maximal pain-free deltoid isometrics in scapular plane (avoid shoulder extension when isolating posterior deltoid.)
- Frequent (4-5 times a day for about 20 minutes) cryotherapy


## 3 WEEKS TO 6 WEEKS

- Progress exercises listed above.
- Progress PROM:
- Forward flexion and scaption to 120 degrees.
- ER in scapular plane to tolerance, respecting soft tissue constraints.
- Gentle resisted exercise of elbow, wrist, and hand.
- Continue frequent cryotherapy


## CRITERIA FOR PROGRESSION TO PHASE II

- Tolerates shoulder PROM and isometrics
- Tolerates AROM to minimally resistive program for elbow, wrist, and hand.
- Patient demonstrates the ability to isometrically activate all components of the deltoid and periscapular musculature in the scapular plane


## Phase II: Active Range of Motion/Early Strengthening Phase (Weeks 6-12)

## GOALS

- Continue progression of PROM (full PROM is not expected).
- Gradually restore AROM.
- Control pain and inflammation.
- Allow continued healing of soft tissue / do not overstress healing tissue.
- Re-establish dynamic shoulder and scapular stability.


## PRECAUTIONS

- Continue to avoid shoulder hyperextension
- In the presence of poor shoulder mechanics avoid repetitive shoulder AROM exercises/activity.
- Restrict lifting of objects to no heavier than a coffee cup.
- No supporting of body weight by involved upper extremity.


## WEEKS 6-8

- Continue with PROM program.
- At 6 weeks post op start PROM IR to tolerance (not to exceed 50 degrees) in the scapular plane.
- Begin shoulder AA/AROM as appropriate.
- Forward flexion and scaption in supine with progression to sitting/standing.
- ER and IR in the scapular plane in supine with progression to sitting/standing.
- Begin gentle glenohumeral IR and ER submaximal pain free isometrics.
- Initiate gentle scapulothoracic rhythmic stabilization and alternating isometrics in supine as appropriate. Begin gentle periscapular and deltoid sub-maximal pain free isotonic strengthening exercises, typically toward the end of the 8th week.
- Progress strengthening of elbow, wrist, and hand.
- Gentle glenohumeral and scapulothoracic joint mobilizations as indicated (Grade I and II ).
- Continue use of cryotherapy as needed.
- Patient may begin to use hand of operative extremity for feeding and light activities of daily living including dressing, washing.


## WEEKS 9-12

- Continue with above exercises and functional activity progression.
- Begin AROM supine forward flexion and scaption with light weights (l-3lbs. or.5-1.4 kg) at varying degrees of trunk elevation as appropriate. (i.e. supine lawn chair progression with progression to sitting/standing).
- Progress to gentle glenohumeral IR and ER isotonic strengthening exercises in sidelying position with light weight ( $1-3 \mathrm{lbs}$ or $.5-1.4 \mathrm{~kg}$ ) and/or with light resistance resistive bands or sport cords.


## CRITERIA FOR 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: Moderate Strengthening (Week 12+)

## GOALS

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


## PRECAUTIONS

- No lifting of objects heavier than 2.7 kg ( 6 lbs ) with the operative upper extremity
- No sudden lifting or pushing activities.
- Continue with the previous program as indicated.
- Progress to gentle resisted flexion, scaption in standing as appropriate.


## Phase IV: Continued Home Program (Typically 4+ months post-op)

Typically the patient is on a home exercise program at this stage to be performed 3-4 times per week with the focus on:

- Continued strength gains
- Continued progression toward a return to functional and recreational activities within limits as identified by progress made during rehabilitation and outlined by surgeon and physical therapist.


## CRITERIA FOR DISCHARGE FROM SKILLED THERAPY

- Patient is able to maintain pain free shoulder AROM demonstrating proper shoulder mechanics. (Typically $80-120$ degrees of elevation with functional ER of about 30 degrees.)
- Typically able to complete light household and work activities.

Adapted from The Brigham and Women's
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Services

