



**PRIMARY / REVISION REVERSE TOTAL SHOULDER  
ARTHROPLASTY (RTSA)**

**PHYSICAL THERAPY PROTOCOL**

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**Patient Name:** \_\_\_\_\_ **Date of Surgery:** \_\_\_\_\_

**Procedure:** Right / Left Reverse Total Shoulder Arthroplasty

\_\_\_ Evaluate and Treat \_\_\_\_\_ Provide patient with home program

Frequency: \_\_\_\_\_x/week x \_\_\_\_\_weeks

**Phase I – Immediate Post Surgical Phase (Day 1-6 weeks)**

**Goals:**

1. Patient’s family independent with:
  - Joint protection- avoidance of shoulder extension and internal rotation behind back.
  - PROM- passive ROM does not mean stretching!! Do not place undue tension on surgical repair.
  - Assisting with donning on/off sling and shirt.
  - Assisting with prescribed home exercise program.
2. Promote healing of soft tissue
3. Maintain integrity of replaced joint



4. Gradually increase PROM of shoulder
5. Restore active range of motion (AROM) of elbow/wrist/hand.
6. Patient independent with use of conservative measures of pain control
  - Appropriate posture/positioning
  - Use of cryotherapy
  - Deep breathing/ relaxation
7. Independent with ADL's with modifications and compensations to maintain the integrity of the replaced joint.

#### **Protections:**

1. Sling is worn 4 weeks post operatively except during physical therapy and home exercises. Sling is worn when sleeping and weaned after the fourth week. The use of a sling may be extended for a total of six weeks, often in a revision setting.
2. While lying supine, the distal humerus/elbow should be supported by a pillow or rolled towel. Avoid shoulder hyperextension/anterior capsule stretch/subscapularis stretch. Patients should be advised to "always be able to see their elbow while lying supine".
3. No shoulder AROM.
4. No lifting of objects with operative extremity.
5. NO stretching or sudden movements (Particularly external rotation).
6. No supporting body weight by hand on involved side.
7. Keep incision clean and dry (no soaking/wetting for 2 weeks); No whirlpool, Jacuzzi, ocean/lake wading for 4 weeks.

#### **Acute Care Therapy (Day 1 to 4):**

1. Begin PROM in supine after complete resolution of interscalene block.
  - Forward flexion and elevation in the scapular plane in supine to 90degrees.
  - External rotation (ER) in scapular plane to available ROM as indicated by operative findings. Typically around 20-30 degrees.
  - No Internal Rotation (IR) range of motion (ROM).
2. Active/ Active-Assisted ROM (A/AAROM) of cervical spine, elbow, wrist, and hand.
3. Begin Periscapular sub-maximal pain-free isometrics in the scapular plane.
4. Continuous cryotherapy for first 72 hours postoperatively, then frequent application (4-5 times a day for 20 minutes).
5. Insure patient is independent in bed mobility, transfers and ambulation.
6. Insure proper sling fit/alignment/use.
7. Instruct patient in proper positioning, posture, initial home exercise program.
8. Provide patient/family with written home program including exercise and protocol information.

#### **Day 5 to 21:**

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

#### **3 Weeks to 6 Weeks:**

1. Progress exercises listed above.
2. Progress PROM:
  - Forward flexion and elevation in the scapular plane in supine to 120 degrees.
  - ER in scapular plane to tolerance, respecting soft tissue constraints.
3. Gentle resisted exercise of elbow, wrist, and hand.

#### **\*\* Criteria for progression to the next phase (Phase II):**

- Tolerates shoulder PROM and isometrics; AROM-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 (Week 6 to 12):**

#### **Goals:**

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

#### **Precautions:**

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

#### **Weeks 6 to 8:**

1. Continue with PROM program.
2. At 6 weeks post op start PROM IR to tolerance (not to exceed 50 degrees) in the scapular plane.
3. Begin shoulder AA/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.
4. Begin gentle glenohumeral IR and ER sub-maximal pain free isometrics.
5. 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 8<sup>th</sup> week.
6. Progress strengthening of elbow, wrist and hand.
7. Gentle glenohumeral and scapulothoracic joint mobilization as indicated (Grade I and II).
8. Continue use of cyrotherapy as needed.
9. Patient may begin to use hand of operative extremity for feeding and light activities of daily living including dressing and bathing.

#### **Week 9 to 12:**

1. Continue with above exercises and functional activity progression.
2. Begin AROM supine forward flexion and elevation in scapular plane with light weights (1-3 lbs or .5-1.4kg) at varying degrees of trunk elevation as appropriate. (I.e. supine lawn chair progression with progression to sitting/standing).
3. Progress to gentle glenohumeral IR and ER isotonic strengthening exercise in side-lying position with light weight (1-3 lbs or .5-1.4kg) and/or with light resistance resistive bands or sports cords.

#### ***\*\*Criteria for progression to the next phase (Phase III):***

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

### **Phase III- Moderate strengthening (Week 12 +):**

#### **Goals:**

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

#### **Precautions:**

1. No lifting of objects heavier than 6lbs (or 2.7 kg) with operative upper extremity.



2. No sudden lifting or pushing activities.

**Week 12 to 16:**

1. Continue with the previous program as indicated.
2. Progress to gentle resisted flexion, elevation in standing as appropriate.

**Phase IV-Continued Home Program (Typically 4+months postop):**

- 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.

**By signing this referral, I certify that I have examined this patient and physical therapy is medically necessary. This patient \_\_\_ would \_\_\_ would not benefit from social services.**

\_\_\_\_\_

**Date:** \_\_\_\_\_

**Bryan M. Saltzman, MD**