



## Reverse Total Shoulder Arthroplasty Rehabilitation Guideline

This rehabilitation program is designed to return the individual to their activities as quickly and safely as possible. It is designed for rehabilitation following a reverse total shoulder procedure. Modifications to this guideline may be necessary dependent on physician specific instruction and/or concomitant injuries or procedures performed. This evidence-based rTSA guideline is criterion-based and time frames and visits in each phase will vary depending on many factors- including patient demographics, goals, and individual progress. This guideline is designed to progress the individual through rehabilitation to full sport/ activity participation. The therapist may modify the program appropriately depending on the individual's goals for activity following the procedure.

This guideline is intended to provide the treating clinician a frame of reference for rehabilitation. It is not intended to substitute clinical judgment regarding the patient's post-operative care based on exam/treatment findings, individual progress, and/or the presence of concomitant procedures or post-operative complications. If the clinician should have questions regarding post-operative progression, they should contact the referring physician.

### **General Guidelines/ Precautions:**

- PROM only for 4 weeks, AAROM at 4 weeks, AROM at 6 weeks, no strengthening for 10 weeks
- Avoid ER ROM beyond 30-deg for 4 weeks
- Avoid excessive extension beyond 0-deg and end range adduction/IR for 4 weeks
- Sling to be worn at all times except while doing exercises for 4-6 weeks (as directed by MD)
- Avoid light activities with wrist and hand for 2 weeks other than prescribed exercises
- Expect return to moderate functional activities gradually at 3 months post-op
- Expect return to more challenging activities (i.e. golfing and racquet sports) at 4-6 months
- Lifetime restrictions of no lifting over 20 pounds out from the body or overhead and no overhead throwing

Updated 12/22/20

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Phase	Suggested Interventions	Goals/ Milestones for Progression
<p><b>Pre-Op</b></p> <p><i>Patient Education Phase</i></p> <p>Expected visits: 1-2</p>	<p><i>Discuss:</i> Anatomy, existing pathology, post-op rehab schedule, bracing, and expected progressions</p> <p><i>Instruct on Pre-op exercises:</i> strength and ROM progressions as tolerated</p> <p><i>Education in:</i></p> <ul style="list-style-type: none"> <li>• Donning and doffing immobilizer</li> <li>• Dressing technique</li> <li>• HEP following surgery</li> <li>• Planning for assistance at home</li> </ul>	<p><i>Goals of Phase:</i></p> <ol style="list-style-type: none"> <li>1. Improve ROM and strength prior to surgery</li> <li>2. Educate on restrictions and timelines of restrictions following surgery</li> <li>3. Educate in preparations for home and assistance post surgery</li> <li>4. Education of HEP</li> <li>5. Education in donning/doffing sling</li> </ol>
<p><b>Acute Care Stay</b></p>	<p><i>Immediate Post-operative instructions:</i></p> <p><i>Patient and family/coach education and training in an individual or group setting for:</i></p> <ul style="list-style-type: none"> <li>• Safety with mobilization and transfers</li> <li>• HEP and icing schedule</li> <li>• Donning/doffing sling</li> <li>• Dressing techniques</li> <li>• Instruct in precautions: <ul style="list-style-type: none"> <li>○ No active motion of surgical shoulder</li> <li>○ Sling to be worn except when performing exercises</li> <li>○ No support of body weight with involved hand</li> <li>○ Keep incisions clean and dry</li> </ul> </li> </ul> <p><i>Exercises</i></p> <ul style="list-style-type: none"> <li>• PROM flexion and scaption to 90-deg (per surgeon preference)</li> <li>• PROM ER to 30-deg (per surgeon preference)</li> <li>• PROM IR to chest wall (per surgeon preference)</li> <li>• Pendulum exercises</li> <li>• AROM to elbow wrist and hand</li> <li>• AROM to wrist and hand including gripping exercise</li> </ul>	<p><i>Goals of Phase:</i></p> <ol style="list-style-type: none"> <li>1. Instruction of HEP</li> <li>2. Assess and provide education on mobility, dressing, and self cares</li> <li>3. Education on restrictions</li> </ol> <p><i>Suggested Criteria to Advance to Next Phase:</i></p> <p><i>Functional Goals:</i></p> <ol style="list-style-type: none"> <li>1. SBA transfers</li> <li>2. SBA bed mobility</li> <li>3. SBA ambulation household distances with appropriate AD</li> <li>4. CGA stair negotiation with appropriate AD</li> <li>5. MIN A for bathing</li> <li>6. MIN A for dressing</li> <li>7. MIN A for donning/doffing sling</li> <li>8. SBA for shower transfer with appropriate modification</li> <li>9. SBA for toilet transfer with appropriate modification</li> </ol>
<p><b>Phase I</b></p>	<p><i>Specific Instructions:</i></p> <ul style="list-style-type: none"> <li>• No active motion of surgical shoulder</li> </ul>	<p><i>Goals of Phase:</i></p> <ol style="list-style-type: none"> <li>1. Reduce pain and edema</li> </ol>

<p><i>Maximum Protection Phase</i></p> <p>Weeks 0-2</p> <p>Expected visits: 4-6</p>	<ul style="list-style-type: none"> <li>• Maintain use of sling except when performing exercises</li> <li>• Avoid shoulder hyperextension or supporting of body weight with involved extremity</li> <li>• Keep incision clean and dry</li> </ul> <p><i>Suggested Treatments:</i></p> <p><u>Modalities:</u> cryotherapy, electrical stimulation</p> <ul style="list-style-type: none"> <li>• Avoid heat for 2 weeks</li> </ul> <p><u>Range of Motion</u></p> <ul style="list-style-type: none"> <li>• PROM flexion and scaption to 90-deg</li> <li>• PROM ER to 30-deg (scapular plane) and IR to chest wall</li> <li>• AROM elbow, wrist, and hand</li> <li>• C-spine AROM</li> </ul> <p><i>Exercise Examples:</i></p> <ul style="list-style-type: none"> <li>• PROM in pain-free ROM</li> <li>• Pendulum exercises</li> <li>• Scapular stabilization</li> <li>• Elbow, wrist, and hand AROM and gripping exercises</li> </ul> <p><i>Other Activities:</i> walking program</p>	<ol style="list-style-type: none"> <li>2. Initiate early PROM with goal of 75-90 degrees flexion/scaption and 20-30 degrees ER in scapular plane</li> <li>3. Educate patient on restrictions</li> </ol> <p><i>Criteria to Advance to Next Phase:</i></p> <ol style="list-style-type: none"> <li>1. Tolerates PROM within acceptable pain levels</li> </ol>
<p><b>Phase II</b></p> <p><i>Protected Passive Motion Phase</i></p> <p>Weeks 2-4</p> <p>Expected visits: 4-6</p>	<p><i>Specific Instructions:</i></p> <ul style="list-style-type: none"> <li>• Continue to wear the sling</li> <li>• No carrying or lifting of objects</li> <li>• No active motion of surgical shoulder</li> </ul> <p><i>Suggested Treatments:</i></p> <p><u>Modalities:</u> cryotherapy/thermotherapy, electrical stimulation</p> <p><u>Range of Motion</u></p> <ul style="list-style-type: none"> <li>• PROM flexion and scaption as tolerated (pain-free)</li> <li>• PROM ER to 30-deg (scapular plane) and IR to chest wall</li> <li>• AROM elbow, wrist, and hand</li> <li>• C-spine AROM</li> </ul> <p><u>Manual Therapy:</u> soft tissue mobilization, scapular mobilization, light GHJ mobilization (Grade I) for pain control</p> <p><i>Exercise Examples:</i></p> <ul style="list-style-type: none"> <li>• PROM in pain-free ROM</li> </ul>	<p><i>Goals of Phase:</i></p> <ol style="list-style-type: none"> <li>1. Minimal pain with daily activities with involved UE</li> <li>2. Fully healed incision</li> <li>3. Minimal to no edema</li> <li>4. PROM 90-120 degrees flexion, 30-degrees ER, and IR to chest wall</li> </ol> <p><i>Suggested Criteria to Advance to Next Phase:</i></p> <ol style="list-style-type: none"> <li>1. Tolerates PROM within acceptable pain levels</li> </ol>

	<ul style="list-style-type: none"> <li>• Pendulum exercises</li> <li>• Scapular stabilization</li> <li>• Elbow, wrist, and hand AROM and gripping exercise</li> </ul>	
<p><b>Phase III</b></p> <p><i>Active Assisted Motion and Muscle Activation Phase</i></p> <p>Weeks 4-6</p> <p>Expected visits: 4-6</p>	<p><i>Specific Instructions:</i></p> <ul style="list-style-type: none"> <li>• Wean from sling as tolerated at 4-6 weeks (per surgeon preference)</li> <li>• AAROM initiated at 4 weeks as tolerated</li> <li>• Submaximal isometrics initiated at 4 weeks as tolerated</li> </ul> <p><i>Suggested Treatments:</i></p> <p><u>Modalities:</u> cryotherapy/thermotherapy as appropriate</p> <p><u>Range of Motion:</u></p> <ul style="list-style-type: none"> <li>• Progress PROM as tolerated (ER in scapular plane)</li> <li>• AAROM into flexion, abduction, ER, IR, extension, adduction, horizontal abd and add</li> </ul> <p><u>Manual Therapy:</u> soft tissue mobilization, scar mobilization, light GHJ mobilization, scapular mobilization</p> <p><i>Exercise Examples:</i></p> <ul style="list-style-type: none"> <li>• AAROM (cane, wand, etc.), pulleys, unresisted UBE</li> <li>• Submaximal and pain-free isometrics</li> <li>• Rhythmic stabilization</li> <li>• Active scapular retraction (no shoulder hyperextension)</li> <li>• Thoracic mobility</li> <li>• Ball stabilization on the wall</li> <li>• Gentle biceps and triceps strengthening</li> </ul>	<p><i>Goals of Phase:</i></p> <ol style="list-style-type: none"> <li>1. Prevent muscular inhibition/atrophy</li> <li>2. PROM/AAROM 120-degrees flexion, 45-degrees ER, IR to belt line</li> </ol> <p><i>Criteria to Advance to Next Phase:</i></p> <ol style="list-style-type: none"> <li>1. Minimal pain with AAROM and isometrics</li> <li>2. No compensation in movement patterns of AAROM</li> </ol>
<p><b>Phase IV</b></p> <p><i>Active Motion Phase</i></p> <p>Weeks 6-10</p> <p>Expected visits: 8-12</p>	<p><i>Specific Instructions:</i></p> <ul style="list-style-type: none"> <li>• Continue previous exercises</li> <li>• AROM initiated at 6 weeks</li> <li>• Use of involved UE with most ADL's</li> </ul> <p><i>Suggested Treatments:</i></p> <p><u>Range of Motion:</u></p> <ul style="list-style-type: none"> <li>• Progress PROM/AAROM as tolerated</li> <li>• AROM in all planes</li> </ul> <p><u>Manual Therapy:</u> joint mobilizations continued if impingement signs or ROM is lacking</p>	<p><i>Goals of Phase:</i></p> <ol style="list-style-type: none"> <li>1. AROM 140-degrees flexion, 60-deg ER, IR to lumbar spine understanding not every patient will obtain this based on diagnosis/co-morbidities</li> <li>2. Grade 3/5 strength</li> <li>3. Resume use of involved UE with light ADL's</li> </ol> <p><i>Criteria to Advance to Next Phase:</i></p> <ol style="list-style-type: none"> <li>1. Minimal pain with AROM and isometrics</li> <li>2. No compensation in movement patterns of AROM</li> <li>2. Resume use of involved UE with light ADL's</li> </ol>

	<p><i>Exercise Examples:</i></p> <ul style="list-style-type: none"> <li>• Continue rhythmic stabilization and alternating isometric stability drills</li> <li>• Functional active movement patterns avoiding pain and/or compensation patterns</li> </ul>	
<p><b>Phase V</b></p> <p><i>Strengthening and Advanced Movement Phase</i></p> <p>Weeks 10-24</p> <p>Expected visits: 8+</p>	<p><i>Specific Instructions:</i></p> <ul style="list-style-type: none"> <li>• Strengthening initiated at 10 weeks</li> <li>• Avoid high velocity activities</li> </ul> <p><i>Suggested Treatments:</i></p> <p><u>Range of Motion:</u> continue ROM exercises as needed</p> <p><u>Strengthening:</u> light resistance (1-2 lbs) at 10 weeks as tolerated (or as directed by MD)</p> <p><i>Exercise Examples:</i></p> <ul style="list-style-type: none"> <li>• Progress to moderate resistance exercises into cardinal and functional planes avoiding compensation patterns</li> <li>• Progress scapular strength/stabilization</li> <li>• Progress to body weight supported exercises on shoulder</li> </ul>	<p><i>Suggested Criteria for Discharge:</i></p> <ol style="list-style-type: none"> <li>1. Return to advanced functional activities with no restrictions</li> <li>2. Independent with HEP</li> </ol>

**\*\*NOTE:** Progression of functional activities should be performed only as pain and proper biomechanics allow.

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