



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 reverse total shoulder arthroplasty. Modifications to this guideline may be necessary depending on physician-specific instructions, specific tissue healing timelines, chronicity of injury and other contributing impairments that need to be addressed. This evidence-based reverse total shoulder arthroplasty rehabilitation guideline is criterion-based. 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 and activity participation. The therapist may modify the program appropriately depending on the individual's goals for activity following reverse total shoulder arthroplasty.

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

General Guidelines/Precautions:

- ROM guidelines in Phases II and III will depend on physician preference
- PROM only for 4 weeks, AAROM at 4 weeks, AROM at 6 weeks, no strengthening for 10 weeks
- Avoid ER ROM beyond 30° for 4 weeks (or as directed by MD)
- Avoid excessive extension beyond 0° and end range adduction/IR for 4 weeks
- Sling/immobilizer 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
- Outcome measure reporting (FOTO, Quick DASH, SPADI, simple shoulder test)

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PHASE	SUGGESTED INTERVENTIONS	GOALS/MILESTONES FOR PROGRESSION
Phase I <i>Patient Education/ Pre-op Phase</i> <i>Expected visits: 1-2</i>	<p>Discuss: Anatomy, existing pathology, post-op rehab schedule, wearing of sling/immobilizer and expected progressions</p> <p>Education and instruction on Pre-op Exercises and Expectations: Prospective joint replacement candidates will participate in pre-op education individually or in a class setting, which includes instruction in:</p> <ul style="list-style-type: none"> • Equipment recommendations • Pre-surgical UE exercises • Donning/doffing immobilizer • Dressing techniques • Post-op pain expectations • Pre-op exercises: strength and ROM progressions as tolerated 	<p>Goals of Phase:</p> <ol style="list-style-type: none"> 1. Improve ROM and strength prior to surgery 2. Educate on restrictions and timelines of restrictions following surgery 3. Educate in preparations for home and assistance post-surgery 4. Education of HEP 5. Education in donning/doffing sling
Phase II <i>Acute Care Stay</i> <i>Post-op: 0-1 days</i>	<p>Immediate post-operative instructions: Patient and family/coach education and training in an individual or group setting for:</p> <ul style="list-style-type: none"> • Safety with mobilization and transfers • HEP and icing schedule • Donning/doffing sling • Dressing techniques • Instruct in precautions: <ul style="list-style-type: none"> o No active motion of surgical shoulder o Sling/immobilizer to be worn except when performing exercises o No support of body weight with involved hand o Keep incisions clean and dry <p>Exercises</p> <ul style="list-style-type: none"> • PROM flexion and scaption to 90° • PROM ER to 30° • PROM IR to chest wall • Pendulum exercises • AROM elbow flexion, extension, wrist flexion/extension, hand opening/closing, gripping 	<p>Goals of Phase:</p> <ol style="list-style-type: none"> 1. Instruct in HEP 2. Assess and provide education on mobility, dressing, and self-care 3. Educate patient on restrictions <p>Suggested Criteria to Advance to Next Phase:</p> <ol style="list-style-type: none"> 1. SBA for transfers, bed mobility and household ambulation distances with appropriate AD, shower/toilet transfers 2. CGA for stairs with appropriate AD 3. MIN A for bathing, dressing, sling/immobilizer

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

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<p>Phase V <i>Active Assisted Motion and Muscle Activation Phase</i> Weeks 4-6</p>	<p>Specific instructions:</p> <ul style="list-style-type: none"> • Wean from sling as tolerated at 4-6 weeks • AAROM initiated at 4 weeks as tolerated • Submaximal isometrics initiated at 4 weeks as tolerated <p>Suggested Treatments: Modalities: cryotherapy/thermotherapy as appropriate Range of Motion</p> <ul style="list-style-type: none"> • Progress PROM as tolerated (ER in scapular plane) • AAROM into flexion, abduction, ER, IR, extension, adduction, horizontal abd and add <p>Manual Therapy: soft tissue mobilization, scar mobilization, light GHJ mobilization, scapular mobilization</p> <p>Exercise Examples:</p> <ul style="list-style-type: none"> • AAROM (cane, wand, etc.), pulleys, unresisted UBE • Submaximal and pain-free isometrics • Rhythmic stabilization • Active scapular retraction (no shoulder hyperextension) • Thoracic mobility • Ball stabilization on the wall • Gentle biceps and triceps strengthening 	<p>Goals of Phase:</p> <ol style="list-style-type: none"> 1. Prevent muscular inhibition/atrophy 2. PROM/AAROM 120° flexion, 45°, IR to belt line <p>Criteria to Advance to Next Phase:</p> <ol style="list-style-type: none"> 1. Minimal pain with AAROM and isometrics 2. No compensation in movement patterns of AAROM
<p>Phase VI <i>Active Motion Phase</i> Weeks 6-10</p>	<p>Specific instructions:</p> <ul style="list-style-type: none"> • Continue previous exercises • AROM initiated at 6 weeks • Use of involved UE with most ADLs <p>Suggested Treatments: Range of Motion</p> <ul style="list-style-type: none"> • Progress PROM/AAROM as tolerated • AROM in all planes <p>Manual Therapy: Joint mobilizations continued if impingement signs or ROM is lacking</p> <p>Exercise Examples:</p> <ul style="list-style-type: none"> • Continue rhythmic stabilization and alternating isometric stability drills • Functional active movement patterns avoiding pain and/or compensation patterns 	<p>Goals of Phase:</p> <ol style="list-style-type: none"> 1. AROM 140° flexion, 60° ER, IR to lumbar spine understanding not every patient will obtain this based on diagnosis/co-morbidities 2. Grade 3/5 strength 3. Resume use of involved UE with light ADLs <p>Criteria to Advance to Next Phase:</p> <ol style="list-style-type: none"> 1. Minimal pain with AROM and isometrics 2. No compensation in movement patterns of AROM 3. Resume use of involved UE with light ADLs
<p>Phase VII <i>Strengthening and Advanced Movement Phase</i> Weeks 10-24</p>	<p>Specific instructions:</p> <ul style="list-style-type: none"> • Strengthening initiated at 10 weeks • Avoid high-velocity activities <p>Suggested Treatments: Range of Motion: Continue ROM exercises as needed Strengthening:</p> <ul style="list-style-type: none"> • Start light resistance (1-2 lbs.) at 10 weeks as tolerated • Progress to moderate resistance exercises into cardinal and functional planes, avoiding compensation patterns • Progress scapular strength/stabilization • Progress to body weight supported exercises on shoulder • Lifetime restrictions of no lifting over 20 pounds out from the body or overhead and no overhead throwing 	<p>Suggested Criteria for Discharge:</p> <ol style="list-style-type: none"> 1. Return to advanced functional activities with no restrictions 2. Independent with HEP

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