Post-Operative Rehabilitation Guidelines for Reverse Shoulder Arthroplasty

These guidelines are designed to assist clinicians and patients in navigating the recovery process following reverse shoulder arthroplasty. Treatment should be customized to the individual, considering examination findings and clinical judgment. For any questions, contact the referring physician.

Key Differences Between TSA and RSA Post-Operative Guidelines
There are notable differences in rehabilitation protocols between total shoulder arthroplasty (TSA) and reverse shoulder arthroplasty (RSA), mainly due to rotator cuff arthropathy. In RSA, deltoid function and periscapular strength are crucial for shoulder mobility and stability.

Considerations for Post-Operative Reverse Shoulder Arthroplasty Rehabilitation
Several factors affect rehabilitation outcomes after reverse shoulder arthroplasty, including the surgical approach, whether rotator cuff repair was performed, the reason for the arthroplasty (such as fracture, rheumatoid arthritis, or osteonecrosis), revision surgery, and individual patient factors like comorbidities. Patients should meet all rehabilitation criteria before progressing to the next phase. Clinicians should collaborate closely with the referring physician throughout the rehabilitation process.

Post-operative Complications
If you develop a fever, unresolving numbness/tingling, excessive drainage from the incision, uncontrolled pain, unresolving tenderness over the acromion or any other symptoms you have concerns about you should contact the referring physician.

PHASE I: IMMEDIATE POST-OP
(WEEKS 2-3 AFTER SURGERY)

Rehabilitation Goals	• Protect surgical repair • Reduce swelling, minimize pain • Maintain UE ROM in elbow, hand and wrist • Gradually increase shoulder PROM • Minimize muscle inhibition • Patient education
Sling	• Neutral rotation • Use of abduction pillow in 30-45 degrees abduction • Use at night while sleeping
Precautions	• No shoulder AROM • No shoulder AAROM • No shoulder PROM in to IR • No reaching behind back, especially in to internal rotation • No lifting of objects • No supporting of body weight with hands • Place small pillow/towel roll under elbow while lying on back to avoid shoulder hyperextension

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PHASE I: IMMEDIATE POST-OP
(WEEKS 2-3 AFTER SURGERY) CONTINUED

Interventions	*Swelling Management* • Ice, compression Range of motion/Mobility • PROM: ER in the scapular plane to tolerance, Flex/Scaption </= 120 degrees, ABD </= 90 degrees, seated GH flexion table slide, pendulums, seated horizontal table slides • AAROM: none • AROM: elbow, hand, wrist
Criteria to Progress	• Gradual increase in shoulder PROM • 0 degrees shoulder PROM in to IR • Pain < 4/10 • No complications with Phase I

PHASE II: INTERMEDIATE POST-OP
(WEEKS 4-6 AFTER SURGERY)

Rehabilitation Goals	• Continue to protect surgical repair • Reduce swelling, minimize pain • Gradually increase shoulder PROM • Initiate shoulder AAROM/AROM • Initiate periscapular muscle activation • Initiate deltoid activation (avoid shoulder extension when activating posterior deltoid) • Patient education
Sling	• Use at night while sleeping • Gradually start weaning sling over the next two weeks during the day
Precautions	• No reaching behind back, especially in to internal rotation • No lifting of objects heavier than a coffee cup • No supporting of body weight with hands • Place small pillow/towel roll under elbow while lying on back to avoid shoulder hyperextension
Additional Intervention *Continue with Phase I interventions	*Range of motion/Mobility* • AAROM: Active assistive shoulder flexion, shoulder flexion with cane, cane external rotation stretch, washcloth press, seated shoulder elevation with cane • AROM: supine flexion, salutes, supine punch *Strengthening* • Periscapular: scap retraction, standing scapular setting, supported scapular setting, low row, inferior glide • Deltoid: isometrics in the scapular plane
Criteria to Progress	• Gradual increase in shoulder PROM, AAROM, AROM • 0 degrees shoulder PROM in to IR • Palpable muscle contraction felt in scapular musculature • Pain < 4/10 • No complications with Phase II

PHASE III: INTERMEDIATE POST-OP CONTD

(WEEKS 7-8 AFTER SURGERY)

Rehabilitation Goals	• Minimize pain • Gradually progress shoulder PROM, initiate shoulder PROM IR in the scapular plane • Gradually progress shoulder AAROM • Gradually progress shoulder AROM • Progress deltoid strengthening • Progress periscapular strengthening • Initiate motor control exercise • Patient education
Sling	• Discontinue
Precautions	• No reaching behind back beyond pant pocket • No lifting of objects heavier than a coffee cup • No supporting of body weight with hands • Avoid shoulder hyperextension
Additional Intervention *Continue with Phase I-II interventions	*Range of motion/Mobility* • PROM: Full in all planes, gradual PROM IR in scapular plane </=50 degrees • AAROM: incline table slides, wall climbs, pulleys, seated shoulder elevation with cane with active lowering • AROM: seated scaption, seated flexion, supine forward elevation with elastic resistance to 90 deg *Strengthening* • Periscapular: Row on physioball, serratus punches • Deltoid: seated shoulder elevation with cane, seated shoulder elevation with cane with active lowering, ball roll on wall *Motor control* • IR/ER in scaption plane and Flex 90-125 (rhythmic stabilization) in supine *Stretching* • Sidelying horizontal ADD, triceps and lats
Criteria to Progress	• ROM goals**: o Elevation </= 140 degrees o ER </= 30 degrees in neutral o IR </= 50 degrees in scapular plane or back pocket o **PROM and AROM expectations are individualized and dependent upon ROM measurements attained in the OR post-operatively • Minimal to no substitution patterns with shoulder AROM • Pain < 4/10

PHASE IV: TRANSITIONAL POST-OP
(MONTHS 9-11 AFTER SURGERY)

Rehabilitation Goals	• Maintain pain-free ROM • Progress periscapular strengthening • Progress deltoid strengthening • Progress motor control exercise • Improve dynamic shoulder stability • Gradually restore shoulder strength and endurance • Return to full functional activities
Precautions	• No lifting of heavy objects (> 10 lbs)
Additional Intervention *Continue with Phase II-III interventions	*Range of motion/mobility* • PROM: Full ROM in all planes *Strengthening* • Periscapular: Resistance band shoulder extension, resistance band seated rows, rowing, robbery, lawnmowers, tripod, pointer • Deltoid: gradually add resistance with deltoid exercise *Motor control* • IR/ER and Flex 90-125 (rhythmic stabilization) • Quadruped alternating isometrics and ball stabilization on wall • Field goals • PNF – D1 diagonal lifts, PNF – D2 diagonal lifts
Criteria to Progress	• Performs all exercises demonstrating symmetric scapular mechanics • Pain < 2/10

PHASE V: ADVANCED STRENGTHENING POST-OP
(WEEKS 12-16 AFTER SURGERY)

Rehabilitation Goals	• Maintain pain-free ROM • Initiate RTC strengthening with a concomitant repair • Improve shoulder strength and endurance • Enhance functional use of upper extremity
Precautions	• No lifting of objects (> 15 lbs)
Additional Intervention *Continue with Phase II-IV interventions	*Strengthening* • Periscapular: Push-up plus on knees, "W" exercise, resistance band Ws, prone shoulder extension Is, dynamic hug, resistance band dynamic hug, resistance band forward punch, forward punch, T and Y, "T" exercise • Deltoid: continue gradually increasing resisted flexion and scaption in functional positions • Elbow: Bicep curl, resistance band bicep curls, and triceps • Rotator cuff: internal external rotation isometrics, side-lying external rotation, Standing external rotation w/ resistance band, standing internal rotation w/ resistance band, internal rotation, external rotation, sidelying ABD standing ABD *Motor Control* • Resistance band PNF pattern, PNF – D1 diagonal lifts w/ resistance, diagonal-up, diagonal-down, wall slides w/ resistance band

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PHASE V: ADVANCED STRENGTHENING POST-OP

(WEEKS 12-16 AFTER SURGERY) CONTINUED

Criteria to Progress	• Clearance from MD and ALL milestone criteria have been met • Maintains pain-free PROM and AROM • Performs all exercises demonstrating symmetric scapular mechanics • QuickDASH • PENN

For further assistance or to schedule an appointment, please contact **iOrtho - The Orthopedic Institute** at **833-464-6784** or visit our website at **iorthomd.com** to text/email us. Our team is dedicated to providing personalized care and guidance throughout your rehabilitation journey.