

REVERSE TOTAL SHOULDER ARTHROPLASTY CLINICAL PRACTICE GUIDELINES

Background

Reverse total shoulder arthroplasty is indicated for patients who have continued pain and loss of function in the presence of advanced joint pathology and have failed conservative measures. The procedure involves replacing the head of the humerus and resurfacing the glenoid fossa while switching their positions in the shoulder. Care should be taken in regards to management of the subscapularis post operatively due to the subscapularis takedown procedure performed.

Disclaimer

Progression is time and criterion-based, dependent on soft tissue healing, patient demographics and clinician evaluation. If you are working with an Ohio State Sports Medicine patient and questions arise, please contact the author by calling our office at (614) 293-2385.



Summary of Recommendations

Precautions	<ul style="list-style-type: none"> • Sling use for 4-6 weeks • No internal rotation, cross body adduction, or extension x 12 weeks (Hand Behind Back Position) • Forward elevation in SCAPTION only (rTSA is in most stable position at 30 deg ER) • No stretching into pain • Caution with end range motion – Do NOT push hard into end ranges • No supporting of body weight by hand on involved side (for example, pushing up from a chair) x 12 weeks • No driving for six weeks • Jogging may begin at 12 weeks • Long Term: <ul style="list-style-type: none"> ○ No push-ups or bench press ○ 15lb limit below shoulder height ○ 10lb limit above shoulder height • Subscapularis Precautions (Confirm with Surgeon) <ul style="list-style-type: none"> ○ No ER PROM past neutral for 4 weeks ○ No Active IR for 8 weeks <p><i>Check with surgeon's office if posterior instability precautions are indicated on referral or operative report</i></p>
Outcome Tools	<ul style="list-style-type: none"> • Quick DASH • Simple Shoulder Test • American Shoulder and Elbow Surgeon's Shoulder Evaluation Short Form
Discharge Sling	<ul style="list-style-type: none"> • 4-6 weeks based off of surgeon recommendation
Criteria for Discharge	<ul style="list-style-type: none"> • Patient is able to maintain pain-free shoulder AROM (typically 80°-120° of elevation, with functional ER of about 30°) • Patient demonstrates proper shoulder mechanics

Phase I: Post-operative – 2 weeks

- Continue home program including wrist/hand, pendulums, and shoulder blade squeezes

Phase II: Weeks 2-4

ROM	<ul style="list-style-type: none"> • Continue all exercises as above • Frequent cryotherapy application – 4-5 times a day for 15 to 20 minutes • NO SHOULDER IR, ADDUCTION, EXTENSION OR CROSS BODY MOVEMENT
Strengthening	<ul style="list-style-type: none"> • Begin submaximal pain-free deltoid isometrics in scapular plane (avoid shoulder extension when isolating posterior deltoid)



Goals to Progress to Next Phase

- Enhance PROM
- Restore active range of motion (AROM) of elbow/wrist/hand
- Independent with activities of daily living (ADLs) with modifications

Phase III: Weeks 4-6

ROM

- Progress PROM
- Forward scaption in supine to 120°
- ER in scapular plane to tolerance, respecting soft tissue constraints (30-45°)
- Continue frequent cryotherapy
- NO SHOULDER IR, ADDUCTION OR CROSS BODY MOVEMENT

Strength

- Gentle resisted exercise of elbow, wrist, and hand
- Discontinue use of sling at six weeks

Goals to Progress to Next Phase

- Patient tolerates shoulder PROM as outlined above
- Patient tolerates elbow, wrist and hand AROM
- Patient demonstrates the ability to isometrically activate all components of the deltoid and periscapular musculature in the scapular plane

Phase IV: Weeks 6-10

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

ROM

- Begin shoulder active assisted ROM/AROM progressing from supine to seated as tolerated in scaption, and ER in the scapular plane
- Gentle glenohumeral and scapulothoracic joint mobilizations as indicated (Grades I and II)
- Patient may begin to use hand of involved extremity for feeding and light ADLs
- Continue use of cryotherapy as needed
- NO SHOULDER IR, ADDUCTION, EXTENSION OR CROSS BODY MOVEMENT

Strength

- Progress strengthening of elbow, wrist, and hand
- Begin gentle glenohumeral ER submaximal pain-free isometrics
- Initiate gentle scapulothoracic rhythmic stabilization and alternating isometrics in supine as appropriate.
- Begin gentle periscapular and deltoid submaximal pain-free isotonic strengthening exercises, typically toward the end of the eighth week (Emphasis on high reps with low resistance)



Goals to Progress to Next Phase	<ul style="list-style-type: none"> • Continue progression of PROM • Gradually restore AROM • Control pain and inflammation • Re-establish dynamic shoulder stability
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Phase V: Weeks 10-12

ROM	<ul style="list-style-type: none"> • Continue with above exercises and functional activity progression • NO SHOULDER IR, ADDUCTION OR CROSS BODY MOVEMENT
Strength	<ul style="list-style-type: none"> • Begin supine forward flexion scaption with light weights of 1-3 pounds at varying degrees of trunk elevation as appropriate (ie, supine to sitting/standing) • Progress to gentle glenohumeral ER isotonic strengthening exercises
Goals to Progress to Next Phase	<ul style="list-style-type: none"> • Improving function of shoulder • Patient demonstrates the ability to isotonicly activate all components of the deltoid and periscapular musculature and is gaining strength

Phase VI: Weeks 12+

Precautions	<ul style="list-style-type: none"> • No lifting of objects heavier than six pounds with the operative upper extremity • No sudden lifting or pushing activities
ROM	<ul style="list-style-type: none"> • Continue to maintain gains • Begin progressing IR as tolerated
Strength	<ul style="list-style-type: none"> • Continue with the previous program as indicated • Progress to gentle resisted flexion, elevation in standing as appropriate • Typically the patient is on a HEP at this stage, to be performed 3-4 times per week, with the focus on: <ul style="list-style-type: none"> ○ 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 Physical Therapy	<ul style="list-style-type: none"> • Patient is able to maintain pain-free shoulder AROM (typically 80°-120° of elevation, with functional ER of about 30°) • Patient demonstrates proper shoulder mechanics



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References

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