POST-OPERATIVE REHABILITATION PROTOCOL

Reverse Total Shoulder Arthroplasty: Accelerated Protocol

William McLaughlin, MD | Sports Medicine Surgery | Advanced Bone & Joint

General Principles

INDICATIONS

- Primary rTSA for **cuff arthropathy**, **OA with cuff deficiency**, or **massive irreparable cuff tear**.
- **Not for:** rTSA for proximal humerus fracture with tuberosity repair, revision arthroplasty, poor bone stock/tenuous glenoid fixation, intraoperative instability, or significant subscapularis repair concerns. Use a conservative protocol in these cases unless the surgeon specifies otherwise.

- Progression is **criterion-based**, not just time-based. Advance when pain and motion goals are met.
- Pain-free or minimal-pain motion only. No forceful stretching.
- Focus on deltoid and scapular stabilizers (the deltoid drives the reverse prosthesis).

PRECAUTIONS (FIRST 6 WEEKS)

- **Dislocation precautions (combined motion):** avoid internal rotation + adduction + extension (e.g., hand behind back, tucking shirt, pushing up from a chair with the operative arm).
- No lifting heavier than a cup of coffee.
- No supporting body weight with the operative arm.

Phase I | Immediate Mobilization (Day 0 to Week 2)

Sling

- Sling for comfort only. Discontinue once the interscalene block wears off (24–48 h) or as comfort allows.
- Optional sling at night or in crowds for the first 1–2 weeks.
- When lying supine, place a small pillow/towel under the elbow so the arm doesn't drop into extension.

Range of Motion (start POD 0–1)

- Pendulums
- Passive and active-assisted forward elevation in the scapular plane (supine first), progressing as tolerated
- Passive/active-assisted external rotation, gentle, within comfort (often around 20–30° early, per surgeon)
- Passive internal rotation in the scapular plane with the arm in abduction only (**no IR behind the back**)
- Active ROM of the elbow, wrist, and hand. Grip strengthening (therapy ball)

Strength

- Submaximal, pain-free deltoid isometrics (anterior, middle, posterior)
- Scapular setting, postural awareness

ADLs & Modalities

- Light ADLs at waist and chest level (eating, grooming, typing) right away
- Cryotherapy for pain and swelling

CRITERIA TO ADVANCE

- Pain controlled, wound healing well
- Passive forward elevation of roughly 90° or more

Phase II | Active Motion and Deltoid Activation (Weeks 2 to 6)

Range of Motion

- Move from passive to active-assisted to active ROM as tolerated (supine, then semi-reclined, then upright)
- Wall walks / closed-chain elevation, table slides, cane-assisted elevation
- Progress external rotation gradually
- Internal rotation: progress in the scapular plane. **Still no IR behind the back or combined extension + adduction**

Strength

- Advance the deltoid program: supine active elevation, then gravity-resisted elevation (raise the incline progressively)
- Scapular stabilization: protraction/retraction without resistance, rhythmic stabilization
- Sub-maximal ER isometrics (if teres minor is intact)

ADLs

- Return to most light daily activities. Driving per surgeon (usually once off opioids and sling-free, with safe control)
- Computer work as tolerated

CRITERIA TO ADVANCE

- Active forward elevation of at least 90–120° without shrug substitution
- Minimal pain at rest

Phase III | Strengthening (Weeks 6 to 12)

Range of Motion

- Progress toward full functional ROM. Gentle end-range stretching
- Begin internal rotation behind the back gradually

Strength (light loads, high reps, concentric first)

- Light elastic band ER, forward flexion, abduction, extension to neutral
- Start resisted IR (isometric, then light bands) after 6 weeks. **Delay to 12 weeks if the subscapularis was repaired** and the surgeon requests it
- Deltoid and scapular strengthening: seated rows, shrugs, serratus punch, bicep curls, “bear hug”
- Proprioceptive neuromuscular facilitation (PNF) patterns with scapular integration
- **Lifting:** progress gradually (light objects, up to 5–10 lb by 12 weeks per surgeon)

CRITERIA TO ADVANCE

- Active forward elevation of at least 120° with good scapulohumeral rhythm
- Independent with ADLs

Phase IV | Advanced Strengthening and Return to Activity (Week 12+)

Strength & Maintenance

- Progressive resistance training within pain-free limits. Add eccentrics and closed-chain exercises
- Home exercise program for maintenance
- Lifting guidance: “hands within eyesight,” elbows slightly bent, minimize heavy overhead loading

Return to Activity (as tolerated, with surgeon clearance)

- Golf at 3–4 months
- Swimming at 3–4 months
- Tennis (doubles) at 4–6 months

AVOID LONG-TERM

- Military/overhead press, behind-the-neck lat pulldowns, wide-grip bench press
- Heavy repetitive lifting, high-impact or contact activities

Expected Outcomes

- Maximal improvement typically by 6–12 months
- Active elevation around 140–150° is commonly achieved
- Internal rotation behind the back is often limited

Red Flags | Contact the Surgeon

CALL THE OFFICE FOR ANY OF THE FOLLOWING

- Sudden pain, a clunk, or loss of motion (possible dislocation)
- Fever, wound drainage, redness, or increasing pain (infection)
- New pain over the acromion/scapular spine, especially with deltoid loading (acromial/scapular spine stress fracture)
- New numbness or weakness (nerve injury, especially axillary)
- Falls involving the operative arm

Surgeon-Specific Modifications

Subscapularis repaired: ☐ Yes ☐ No ER limit: _____° Sling duration: _____

Notes:

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This protocol is a general guideline. Progression is patient-specific and at the discretion of William McLaughlin, MD.