



Orthopaedic Protocols

Reverse Total Shoulder Arthroplasty

Phase I – Immediate Post Surgical Phase/Joint Protection

Day 1-6 weeks:

Goals:

- Patient & family independent with:
 - Joint protection
 - Passive range of motion (PROM)
 - Assisting with putting on/taking off sling & clothing
 - Assisting with home exercise program (HEP)
 - Utilization of cold packs/ice
- Promote healing of soft tissue/maintain the integrity of the replaced joint.
- Enhance PROM.
- Active Range of Motion (AROM) of elbow/wrist/hand.
- Independent with activities of daily living (ADL's) with modifications.
- Independent with bed mobility, transfers & ambulation or as per pre-admission status.

Phase I Precautions:

- Sling is worn for 3-4 weeks post-op. The use of a sling often may be extended for a total of 6 weeks, if the current total shoulder arthroplasty (TSA) procedure is a revision surgery.
- While lying supine, the distal humerus/elbow should be supported by a pillow to towel roll to avoid shoulder extension. Patients should be advised to “always be able to visualize their elbow while lying supine.”
- No shoulder AROM.
- No lifting of objects with operative extremity.
- No supporting of body weight with involved extremity.
- Keep incision clean & dry (no soaking/wetting for 2 weeks); No whirlpool, Jacuzzi, ocean/lake wading for 4 weeks.

Acute Care Therapy

Day 1-4:

- Begin PROM in supine after complete resolution of interscalene block.
 - Forward flexion & elevation in the scapular plane in supine to 90 degrees.
 - External rotation (ER) in scapular plane to available ROM as indicated by operative findings. Typically around 20-30 degrees.
 - No Internal Rotation (IR) ROM.

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- Active/Active Assisted ROM (A/AAROM) of cervical spine, elbow, wrist & hand.
- Begin periscapular sub-maximal pain-free isometrics in the scapular plane.
- Continuous cold packs/ice for 1st 72 hours post-op, then frequent application (4-5 times a day for about 20 minutes).
- Insure patient is independent in bed mobility, transfers & ambulation.
- Insure proper sling fit/alignment use.
- Instruct patient in proper positioning, posture, initial home exercise program.
- Provide patient/family with written home program including exercises & protocol information.

Day 5-21:

- Continue all exercises as above.
- Begin sub-maximal pain-free deltoid isometrics in scapular plane (avoid shoulder extension when isolating posterior deltoid).
- Frequent (4-5 times a day for about 20 minutes) cold packs/ice.

Weeks 3-6:

- Progress exercises listed above.
- Progress PROM:
 - Forward flexion & elevate in the scapular plane in supine to 120 degrees.
 - ER in scapular plane to tolerance, respecting soft tissues constraints.
- Gentle resisted exercise of elbow, wrist & hand.
- Continue frequent cryotherapy.

Criteria for progression to the next phase (Phase II):

- Tolerates should PROM & isometrics; & AROM-minimally resistive program for elbow, wrist & hand.
- Patient demonstrates the ability to isometrically activate all components of the deltoid & periscapular musculature in the scapular plane.

Phase II-Active Range of Motion/Early Strengthening Phase

Weeks 6-12:

Goals:

- Continue progression of PROM (full PROM is not expected)
- Gradually restore AROM.
 - Control pain & inflammation.
 - Allow continued healing of soft tissue/do not overstress healing tissue.
 - Re-establish dynamic shoulder & scapular stability.

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.

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Weeks 6-8:

- Continue with PROM program.
- At 6 weeks post-op start PROM IR to tolerance (not to exceed 50 degrees) in the scapular plane.
- Begin shoulder AA/AROM as appropriate.
 - Forward flexion & elevation in scapular plane in supine with progress on to sitting/standing.
 - ER & IR in the scapular plane in supine with progression to sitting/standing.
- Begin gentle glenohumeral IR & ER sub-maximal pain free isometrics.
- Initiate gentle scapulothoracic rhythmic stabilization & alternating isometrics in supine as appropriate. Begin gentle periscapular & deltoid sub-maximal pain free isotonic strengthening exercises, typically toward the end of the 8th week.
- Progress strengthening of elbow, wrist & hand.
- Gentle glenohumeral & scapulothoracic joint mobilizations as indicated (Grade I & II).
- Continue use of cold packs/ice as needed.
- Patient may begin to use hand of operative extremity for feeding & light activities of daily living including dressing, washing.

Weeks 9-12:

- Continue with above exercises & functional activity progression.
- Begin AROM supine forward flexion & elevation in the plane of the scapula with light weights (1-3# or .5-1.4 kg) at varying degrees of trunk elevation as appropriate (i.e. supine lawn chair progression to sitting/standing).
- Progress to gentle glenohumeral IR & ER isotonic strengthening exercise in sidelying position with light weight (1-3# or .5-1.4 kg) &/or with light resistance resistive bands or sports cords.

Criteria for progression to the next phase (Phase III):

- Improving function of shoulder.
- Patient demonstrates the ability to isotonicly activate all components of deltoid & periscapular musculature & is gaining strength.

Phase III-Moderate Strengthening

Week 12+:

Goals:

- Enhance functional use of operative extremity & advance functional activities.
- Enhance shoulder mechanics, muscular strength & endurance.

Precautions:

- No lifting of objects heavier than 6# (2.7kg) with the operative upper extremity
- No sudden lifting or pushing activities.

Weeks 12-16:

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- Continue with the previous program as indicated.
- Progress to gentle resisted flexion, elevation in standing as appropriate.

Phase IV-Continued Home Program (Typically 4+ months post-op)

Typically the patient is on a home exercise program at this stage to be performed 3-4 times per week with the focus on:

- Continued strength gains.
- Continued progression toward a return to functional & recreational activities within limits as identified by progress made during rehabilitation & outlined by surgeon & physical therapist.

Criteria for discharge from skilled therapy:

- Patient is able to maintain pain free shoulder AROM demonstrating proper shoulder mechanics. (Typically 80-120 degrees of elevation with functional ER of about 30 degrees.)
- Typically able to complete light household & work activities.