Atlantic Health System
Atlantic Medical Group

Reverse Total Shoulder Arthroplasty
Rehabilitation Protocol
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MD visit at 7 days post-op
Physical therapy begins at 2 weeks post-op

Shoulder Dislocation Precautions
Precautions should be implemented for the first 12 weeks postoperatively unless surgeon specifically advised patient or therapist differently:

- No shoulder motion behind lower back and hip (no combined should adduction, internal rotation [IR], and extension)
- No glenohumeral (GH) joint extension beyond neutral

Phase I: Immediate postsurgical, joint protection (Week 0-6)

Goals

- Joint protection
- Passive range of motion (PROM)
- Assisting with putting on/taking off sling and clothing
- Assisting with home exercise program (HEP)
- Cryotherapy
- Promote healing of soft tissue/maintain the integrity of the replaced joint
- Enhance PROM
- Restore active range of motion (AROM) of elbow/wrist/hand
- Independent with activities of daily living (ADLs) with modifications

Precautions

- Sling is worn for 6 weeks postoperatively
- While lying supine, the distal humerus/elbow should be supported by a pillow or towel roll to avoid shoulder extension. Patients should be advised to "always be able to visualize their elbow while lying supine"
- No should AROM
- No lifting of objects with operative extremity
- No supporting of body weight with involved extremity
- Keep incision clean and dry (no wetting for one week); no whirlpool, Jacuzzi, ocean/lake wading for 4 weeks

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Days 1 to 4 (acute care therapy)

- Begin PROM in supine after complete resolution of interscalene block
- Forward flexion and elevation in the scapular plan in supine to 900
- External rotation (ER) in scapular plane to available ROM as indicated by operative findings, typically around 200-300
- No IR range of motion (ROM)
- AROM/active assisted ROM of cervical spine, elbow, wrist, and hand.
- Begin periscapular submaximal pain-free isometrics in the scapular plane.
- Continuous cryotherapy for first 72 h postoperatively, then frequent application (4-5 times a day for about 20 min)

Days 5 to 21

- Continue all exercises as above
- Begin submaximal pain-free deltoid isometrics in scapular plane (avoid shoulder extension when isolating posterior deltoid)
- Frequent (4-5 times a day for about 20 min) cryotherapy

Weeks 3 to 6

- Progress exercises listed above
- Progress PROM
- Forward flexion and elevation in the scapular plan in supine to 1200
- ER in scapular plane to tolerance, respecting soft tissue constraints
- Week 4 begin weaning off sling during daytime, however must be worn during the night until week 6
- At week 6 postoperatively start PROM IR to tolerance (not to exceed 50^{o}) in the scapular plane
- Gentle resisted exercise of elbow, wrist, and hand
- Continue frequent cryotherapy

Criteria to progress to phase II:

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

Phase II: AROM, Early Strengthening Phase (Weeks 6 to 9)

Goals

- Continue progression of PROM (full PROM is not expected)
- Gradually restore AROM

- Control pain and inflammation
- Allow continued healing of soft tissue/do not overstress healing tissue
- Re-establish dynamic shoulder stability

Precautions
- Continue to avoid should hyperextension
- In the presence of poor should 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 Weeks 6 to 8
- Continue with PROM program
- Begin shoulder active assisted ROM/AROM as appropriate
- Forward flexion and elevation in scapular plane in supine with progression to sitting/standing
- ER and IR in the scapular plane in supine with progression to sitting/standing
- Begin gentle GH IR and 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
- Criteria for progression to the next phase (phase III):
- Improving function of shoulder
- Patient demonstrates the ability to isotonically activate all components of the deltoid and periscapular musculature and is gaining strength

Phase III: Moderate strengthening (week 9+)

Goals
- Enhance functional use of operative extremity and advance functional activities, strengthening exercises, typically toward the end of the eighth week
- Progress strengthening of elbow, wrist, and hand
- Gentle GH and scapulothoracic joint mobilizations as indicated (grades I and II)
- Continue use of cryotherapy as needed
- Patient may begin to use hand of operative extremity for feeding and light ADLs

Weeks 9 to 12
- Continue with above exercises and functional activity progression
- Begin AROM supine forward flexion and elevation in the plane of the scapula with light weights of 0.5 to 1.4 kg (1 to 3 1b) at varying degrees of trunk elevation as appropriate (ie, supine lawn chair progression with progression to sitting/standing)
- Progress to gentle GH IR and ER isotonic strengthening exercises

- Enhance shoulder mechanics, muscular strength, power, and endurance Precautions
- No lifting of objects heavier than 2.7 kg (6 1b) with the operative upper extremity • No sudden lifting or pushing activities

Weeks 12 to 16
- Continue with the previous program as indicated
- Progress to gentle resisted flexion, elevation in standing as appropriate

References of adaptation:
Reverse Total Shoulder Arthroplasty Protocol. Brigham and Women's Hospital. Boston, MA. 2016: 1-9.

The above protocol is intended to be utilized by the clinician as a guideline in the treatment of this disorder. It is based on current research and has been formulated as a collaborative effort between Physicians and Physical Therapists. It is not intended to serve as a substitute for sound clinical decision making. Every patient is a unique case, and it should be anticipated that not all patients will fit into the timelines set forth in this protocol. If the Physical Therapist has any questions regarding the course of treatment, the referring physician should be contacted for further guidance.