Jennifer L. Cook, MD
Florida Joint Replacement and Sports Medicine Center
5243 Hanff Lane
New Port Richey, FL 34652
Phone: (727)848-4249 Fax: (727)841-8934

REVERSE TOTAL SHOULDER ARTHROPLASTY PROTOCOL

Shoulder Dislocation Precautions

This rehabilitation protocol has been developed for the patient following a Reverse Total Shoulder Arthroplasty. Precautions should be implemented for the first 16 weeks postoperatively unless surgeon specifically advises patient or therapist differently. This protocol has been divided into phases. Each phase may vary slightly based on the individual patient and special circumstances. Progression to the next phase based on clinical criteria and time frames as appropriate.

Phase 1: Immediate Postsurgical Phase, Joint Protection (Day 1 to Week 6)
Goals:

- Patient and family independent with
  - -Joint protection
  - -Passive range of motion (PROM) after 2 weeks
  - -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 after two weeks
- Restore active range of motion (AROM) of elbow/wrist/hand
- Independent with activities of daily living (ADLs) with modifications

Precautions:

- Sling is worn for 2-3 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 laying supine"
- No shoulder AROM
- No lifting of objects with operative extremity
- No supporting of body weight with involved extremity
- Keep incision clean and dry (no soaking/wetting for 2 weeks); no whirlpool, Jacuzzi, ocean/lake wading for 4 weeks minimum.

Day 14(acute care therapy)

- Begin PROM in supine
  -Forward flexion and elevation in the scapular plane in supine to 90°
  -External rotation (ER) in scapular plane to available ROM as indicated by operative findings, typically around 20° - 30°
  -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 hrs postoperatively, then frequent application (4-5 times a day for about 20 minutes) cryotherapy

Days 15 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 minutes) cryotherapy

Weeks 3 to 6

- Progress exercises listed above
- Progress PROM
  -Forward flexion and elevation in the scapular plane in supine to 120°
  -ER in scapular plane to tolerance, respecting soft tissue constraints
- At 6 weeks postoperatively start PROM IR to tolerance (not to exceed 50°) in the scapular plane
- Gentle resisted exercise of elbow, wrist, and hand
- Continue frequent cryotherapy

Criteria for progression to the next phase (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: ARAOM, Early Strengthening Phase (Weeks 6 to 12)

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 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

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 in 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 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 lb) 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

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 12+)

Goals:

- Enhance functional use of operative extremity and advance functional activities
- Enhance shoulder mechanics, muscular strength, power and endurance

Precautions

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

Weeks 12 to 16

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

Phase IV: Continued Home Program (Typically 4+ Months Postoperative)

Typically the patient is on a HEP 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 and recreational activities within limits, as identified by progress made during rehabilitation and outlined by surgeon and physical therapist

Criteria for discharge from skilled therapy

- Patient is able to maintain pain-free shoulder AROM, demonstrating proper shoulder mechanics (typically 80° - 120° of elevation, with functional ER of about 30°)