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Reverse Total Shoulder Arthroplasty Protocol

(Deltopectoral Approach)

Shoulder Dislocation Precautions

Precautions should be implemented for the first **12 weeks post-op** unless the surgeon specifically advises patient or therapist differently.

- No shoulder motion behind back and hip (no abduction combined with IR/ ER, or ext). This is the most common way a dislocation will occur. Ex:
    - Reaching behind back
    - Tucking in back of shirt.
    - Fasten bra (if applicable) or perform personal hygiene activities.
- No GH joint ext beyond neutral at all.

Phase I: Immediate Post surgical phase, Joint Protection (Day 1- Wk 6)

Goals:

- Patient/ family independence with
    - Joint protection
    - PROM
    - Assisting with donning/doffing sling and clothing
    - Assistance with HEP
    - Cryotherapy
- Promote healing of soft tissue/maintain the integrity of the replaced joint.
- Enhance ROM.
- Restore AROM of elbow/wrist/hand.
- Independent with ADLs with modifications.

Precautions:

- Sling is to be worn for 3-4 weeks post-op, unless otherwise specified by the surgeon.
- While lying is supine, the distal humerus/elbow should be supported by a pillow or towel roll to prevent shoulder ext. "You should always be able to see your elbow while lying on your back."
- No shoulder AROM.
- No lifting of objects with involved UE.
- No supporting of body weight with involved UE.
- Keep incision clean and dry (no soaking or wetting for 2 weeks); no submersion in water for 4 weeks.

Days 1-4 (Acute care)

- AROM/AAROM of cervical spine, elbow, wrist and hand
- Begin periscapular sub-maximal pain free isometrics in the scapular plane.
- Continuous cryotherapy for first 72 hours post-op (every 2 hours), then 4-5x per day, or as needed.

Days 5-21

- Continue all current exercise of cervical, elbow, wrist and hand.
  - Gentle shoulder shrugs.
- Minimal PROM of the shoulder.
- Frequent cryotherapy (4-5x per day, or as needed).

Weeks 3-6

- Progress exercises above.
- PROM:
  - Forward flexion and elevation in the scapular plane in supine to 90°.
  - ER in scapular plane to available ROM as indicated by operative findings, or 20°- 30° (If no subscapularis muscle is intact, do not initiate ER until week 6).
  - Can begin Codman's pendulum exercises forward/backward
- At 5 weeks progress PROM
  - Side-side and clockwise/counterclockwise Codman's exercises can be initiated.
- At 6 wks post-op, start PROM IR to 30° (not to exceed 50°) in the plane of the scapula.
- Gentle resisted exercises 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.

Phase II: AROM, Early Strengthening (Weeks 6-12)

Goals:

- Continue progression of PROM (full PROM is not expected just yet, to ensure full soft tissue healing, especially if operation was done after failed TSA).
- 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 AROM exercises.
- Restrict lifting of objects to those no heavier than 2 lbs.

- No supporting of body weight by involved UE.

Weeks 6 – 8

- Continue with PROM.
    - Forward flexion and elevation in the plane of the scapula in supine to 120°.
    - ER at 20°- 30° abduction in the plane of scapula to 30°.
    - IR at 45° shoulder abduction at *8th week* (Not exceeding 50° IR).
- Begin muscle activation and PRE (*6 weeks)*
    - Begin pain free sub-maximal isometric contraction of the deltoid.
    - Begin gentle GH IR and ER sub-maximal pain free isometrics.
- Begin AAROM (*8 weeks)*
    - Forward flexion and elevation in the plane of the scapula in supine with progression to sitting/standing.
    - ER and IR: AAROM at in the plane of the scapula in supine with progression to sitting/standing.
        - Cane/Wand Exercises (If Lat Tendon Transfer was performed, wait until 8 wks post-op).
- Begin gentle scapulothoracic rhythmic stabilization.
- Progress strengthening of elbow, wrist, and hand.
- Gentle GH and scapulothoracic joint mobilizations as indicated (Grades I and II to ensure no detriment to tissue).
- Continue use of cryotherapy as needed.

Weeks 9-12

- Continue with above exercises and functional activity progression.
- Begin AROM supine forward flexion and elevation in the plane of the scapula.
- Begin periscapular and deltoid sub-maximal pain free isotonic strengthening exercises.
- Begin gentle GH rhythmic stabilizations while in supine.
- Progress to gentle GH IR and ER isotonic strengthening exercises.
    - Light T-band
- PROM:
    - IR at 90° shoulder abduction at *12th week* (Not exceeding 50° IR).

Criteria for progression to the next phase (Phase III)

- Improving function of the shoulder
- Patient demonstrates the ability to isotonically activate all components of the deltoid, rotator cuff, and periscapular musculature and is gaining strength.

Phase III: Moderate Strengthening (Week 12+)

Goals:

- Enhance functional use of involved UE and advance functional activities.
- Enhance shoulder mechanics, muscular strength, and endurance.

Precautions:

- No lifting of objects heavier than 6 lbs with the involved UE.
- No sudden moving, lifting, or pushing activities with involved UE.

Weeks 12 – 16

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

Phase IV: Continued Home Program (~ 4+ Months Post-Op)

Once at this stage, the patient will most likely be given a HEP to continue at home 3-5 times per week. The HEP will focus on:

- Continued strength progression.
- Continued progression toward a return to functional and recreational activities without limits (if not already achieved).

Criteria for D/C from physical therapy

- Patient is able to maintain pain free shoulder AROM, demonstrating proper shoulder mechanics during movement.
- Typically most patients reach:
  - 100°– 120° of shoulder elevation
  - ~ 15°- 30° of functional ER (if no teres minor deficiency prior to sx).
- General goals:
  - Pain free function.