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Reverse Shoulder Replacement Rehabilitation Protocol

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This protocol is intended as a general guideline for the therapist in directing the post-operative rehabilitation course following a reverse shoulder replacement. The timing of recovery and ultimate outcome following reverse shoulder replacement is variable, often depending to some extent on the integrity of remaining rotator cuff musculature and deltoid strength. Modifications to the protocol may be needed to accommodate patients who recover either more quickly or more slowly than this protocol.

This protocol will vary depending on whether the subscapularis was repaired as noted on the referral. Additionally, external rotation recovery will depend on the amount of remaining posterior rotator cuff musculature. Patient and therapist expectations may have to be altered accordingly. In rare cases, a latissumus dorsi tendon transfer may be performed to restore external rotation. This will be noted on the referral and timing to initiate retraining is noted below.

Phase 1: Protection(0-4wks without subscap repair, 0-6wks with subscap repair)

- Shoulder immobilizer for the first 4-6 weeks. Sleep in the sling (remove neck strap if needed for comfort)

- Range of Motion - remove sling 3 x daily for ROM exercises as below:
  - Pendulum exercises - no larger than a basketball, 5 minutes at time, alternate directions
  - Active ROM in elbow flexion and extension with the elbow at the side and humerus in neutral rotation
  - Forearm pronation and supination, finger and wrist ROM
  - Scapular retractions and trapezial stretch

- May progress to table slides at 4 wks in patients without subscap repair

- May begin gentle PROM in all planes at 4 wks in patients without subscap repair, then advance to AAROM as tolerated

- Restrictions
    - No active ROM of the shoulder
    - No passive ER beyond neutral at weeks 0-2, no ER beyond 30° weeks 2-6 for patients with subscap repair
    - No internal rotation behind the back
    - Avoid shoulder extension and adduction, no push up from a seated position with the operative extremity

- Goals
    - Protect subscapularis repair or latissimus transfer if perfromed
    - Demonstrate scapular mobility
    - Supine active assist forward elevation of >90° by week 6

Phase 2: ROM and Early Strengthening (4-12wks without subscap repair, 6-12wks with subscap repair)

- Discontinue shoulder immobilizer, may use simple sling as needed for comfort when out of the house (fatigue, pain, protection)
- Advance to routine ADL's as tolerated, no lifting greater than 2 lbs

- Range of Motion
    - Begin supine active assisted ROM and supine AROM as tolerated
        - Advance table slides to rail slides and wall slides by week 12
        - Advance supine AROM to seated and standing once adequate scapular control demonstrated
        - Wand exercises:
            - Flexion, abduction, and ER: advance as tolerated
            - Progress supine to seated to standing once adequate scapula control
        - Pulleys: flexion, abduction, scaption
    - Scapular mobilization as indicated

- Strengthening
    - Shoulder isometrics: all planes (except IR for subscap repair - hold until 8wks)
    - Scapular strengthening:
        - Protraction, retraction exercises, and prone rows
    - Light weight, high rep rotator cuff retraining exercises (may begin at 10wks once adequate scapular control demonstrated)
    - Initiate latissimus retraining if transfer performed

- Restrictions
    - No passive ER beyond 60° weeks 6-8 if subscap repaired
    - No lifting greater than 2lbs

- Goals
    - Establish normal scapulo-humeral rhythm
    - Supine forward elevation of 140° by week 12
    - Standing forward elevation of 120° by week 12
    - Expect variable ER recovery based on integrity of infraspinatus and teres minor
    - ER of neutral by week 12 for latissimus transfer

Phase 3: Moderate Strengthening (12-16wks)

- Patient may begin progressive resistance training for rotator cuff strengthening, continued peri-scapular stabilizer strengthening and normalization of ADL's
- Return to increased lifting and carrying activities as limited by discomfort

- Range of Motion
    - Progress as tolerated without limitation
    - Wall washing, etc

- Strengthening
    - Progress from isometrics to band exercises to light weights for cuff strengthening
    - Scapular stengthening:
        - Advance rows and scapular stabilization exercises

- Restrictions
    - No sudden jerking movements, no forceful or painful lifting, no overhead throwing

- Goals
    - Full non-painful AROM with good scapular control
    - Increased muscular endurance and strength

Phase 4: Advanced Strengthening (beyond 16wks)

- Continue to advance strengthening exercises for improved dynamic and overhead function of the shoulder
    - No weight bearing limitations
    - Sport specific rehab as needed

Return to Sport: common return to sport guidelines are noted below

- Golf:
    - 6wks - may begin putting
    - 10 wks - light chipping with 1/4 swing around the green
    - 12wks - begin 1/2 swing with short irons and advance
    - 16 -20wks - full swing with long irons and driver off a tee
    - 5-6 mos - return to full play as tolerated

- Tennis:
    - 12 wks - light ground strokes of a dropped ball
    - 16 wks - progress to stationary ground strokes with a partner or wall drills at sub-maximal effort, light volley as tolerated
    - 20 wks - progress ground stroke intensity and ground strokes while moving
    - 5 to 6 mos - return to sub-maximal serving and then advance to game play as tolerated