Scapular Muscle Reattachment Rehabilitation

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Each case can be very different depending on the goals of the patient, the age of the patient, the size of the repair, type of repair, etc. Included are basic guidelines; however any physician indicated precautions will override these precautions.

Pre-operative / Week 0-2

- Posture Education
  - Erect posture with scapula in neutral position
  - No excessive Thoracic Flexion, Shoulder Flexion, or Scapular Protraction
- Sling Education
  - Patient is to wear sling in Gunslinger position, including when sleeping for 6weeks
  - Ensure patient understands Gunslinger position
  - Don/doff sling taking care to avoid Scapular Protraction and Shoulder Flexion
- Come out of sling 2-3x/day to allow elbow to straighten and AAROM/AROM of wrist and hand to maintain motion

Week 2-6

- Reinforce sling education
  - Patient continues with sling in Gunslinger position - including during sleep, for 6 weeks
  - Erect posture with scapula in neutral position
  - No excessive Thoracic Flexion, Shoulder Flexion, or Scapular Protraction
- Motion Restrictions: All motions should follow progression from PROM to AAROM to AROM ***with start at specified time frame***
  - No forward Flexion for 6 weeks
  - No humeral Horizontal ADDuction for 6 weeks
  - No Internal Rotation for 4 weeks, then ok with arm neutral, elbow at side of body
  - No humeral ABDuction for 4 weeks, then progress from PROM to AAROM
  - External Rotation in neutral, elbow at side at 4 weeks, progress from PROM to AAROM
  - PROM gentle Scaption below 60 degrees at 4 weeks
- Incorporate lumbopelvic stability and control
  - Facilitate setting abdominal core with exercises

    - Facilitate normal breathing patterns
- AAROM/AROM of elbow, wrist and hand
- Isometric rotator cuff activation after 4 weeks in neutral position, arm at side
- Posture education with emphasis on scapular retraction, depression
    - Permissible exercises- sternal lift, gentle scapular retraction (CKC – sitting with hands resting on thighs)
- Soft tissue work to pectorals, upper trapezius, deltoid, and biceps

Week 6-12

- Initiation of gentle GH mobilization and capsular stretching by PT, if indicated
    - These can become more aggressive at 8 weeks
- Continue with Soft tissue work to normalize resting scapular posture
    - Gentle scar mobilization
- Progress from AAROM to AROM
    - Facilitate active arm elevation through axial loading of the GH joint
        - Bowing
        - Table slides, ball rolls on table into arm elevation, then progressing to wall slides
- Scapular muscle activation
    - Isometric mid row, low row
    - CKC isometric serratus anterior
    - Posterior shoulder taps at wall
- CKC rotator cuff strengthening with good scapular control
    - Rotator cuff loading that is consistent with function, including scapular and trunk motion vs isolated cuff exercises.
    - CKC punches at various (tolerable angles) adding arm elevation and rotation to the complimentary scapular exercises
    - CKC GH depression
    - Avoid impingement and rotator cuff referred pain
    - Avoid long-lever movements such as classic open chain cuff exercises (ie. ABD, empty and full cans)
    - Avoid exercises that place moderate levels of tension on the lower trapezius
- Incorporate lumbopelvic stability and control
    - Facilitate setting abdominal core with exercises
    - Progress to performing exercises in single-limb stance with good lumbopelvic control

Example Exercises for Functional Shoulder Rehabilitation

Scapular Control

- When: Should begin with initiation of therapeutic exercises and continue through the end of rehabilitation. This may begin without glenohumeral motion, with the introduction of glenohumeral motion, and with arm elevation once indicated and scapular control increases.
- Goals: Facilitation of scapular muscle recruitment, reeducation and scapular motion; to strengthen scapular musculature in functional movement patterns
- Sample exercises: Sternal lift, scapular squeeze, ball depressions, scapular clocks, scapular PNF

Closed Kinetic Chain

- When: Should begin with initiation of therapeutic exercise and continue through to the end of rehabilitation
- Goals: To stimulate pain-free co-contraction of the rotator cuff and scapular musculature independently and in coordination: to promote glenohumeral compression and dynamic stabilization
- Sample Exercises: Weight shifting on a fixed hand, ball stabilization in appropriate plane and degree of elevation, scapular clock, wall-table-floor pushups

Axillary Loaded Exercises

- When: If the limiting factor in increasing AROM is glenohumeral translation or scapulohumeral coordination
- Goals: To increase active arm elevation with appropriate rotator cuff and scapular stabilizer co-contractions with facilitation of weakest components of AROM to achieve pain-free ROM.
- Sample Exercises: table slides, ball rolling, wall slides, UE weight shift

Integrated Functional Exercises

- When: Incorporate after scapular control and AROM is at or approaching normal
- Goals: Integrated strengthening of scapular, rotator cuff, and trunk musculature
- Sample Exercises: dumbbell or tubing punch/ pull, posterior sling, squat and reach, plank progression
    - Exercises should build upon patient specific needs for return to ADL, work and sport activities