GUIDELINES FOR GLENOID LABRUM REPAIR REHABILITATION

Therapeutic exercise for glenoid labrum repairs begins five to seven days after surgery. This exercise can be fairly aggressive below and up to 90^{∞} of glenohumeral elevation. After approximately 3 weeks, there are no ROM limitations and rehabilitation can progress as tolerated. Pain should guide all AROM. A general progression of therapeutic exercise following this procedure is:

Early (usually 1-3 weeks)

- Begin by establishing quality scapular motion, using complementary trunk motion, hip activation and scapular PNF patterns, without concern for glenohumeral motion
- Follow Limited Arc Protocol (Forward Flexion/Abduction to 90°, External Rotation to neutral)
- Promote scapular retraction with thoracic extension
 - Use the hips to position the spine
- De-emphasize the upper trapezius—emphasize medial and inferior scapular motion
- Address soft tissue inflexibilities especially in the pectoralis minor, upper trapezius, and levator scapulae
- During this early phase glenohumeral movement includes:
 - Closed chain pendulum exercises on ball or table
 - AROM exercises up to 90∞ of elevation, provided there is good scapular motion with this elevation
 - Axially loaded AROM exercises, which facilitate glenohumeral congruency and effectively decrease the intrinsic weight of the upper limb
- CKC exercises such as weight shifts, balance boards, push-ups, and stabilization, with elevation as tolerated, to promote force couple contractions

**NOTE: AVOID EXTERNAL ROTATION BEYOND NEUTRAL WITH POSTERIOR SUPERIOR LABRUM REPAIRS.

**In conjunction with biceps tenodesis avoid biceps loading

Intermediate (usually week 4-8)

- Move toward full AROM with quality scapulo-thoraco-humeral rhythm
- "Open the upper extremity chain" continuing to use functional movement patterns and complementary motion in the proximal segments
- Address all planes of motion
- Load the rotator cuff using punches, with complementary hip and trunk movement, in various planes and angles. (Begin in downward angles and progress to horizontal for maximal load. Overhead punches and presses requires normal scapular kinetics)
- Address internal rotation deficit—muscular and capsular
- Avoid external rotation/horizontal abduction posterior to the plane of the body
- May begin introducing plyometrics at week 6-8 provided there is full AROM, good scapular control, and good RC strength

EXAMPLE EXERCISES FOR FUNCTIONAL SHOULDER REHABILITATION

SCAPULAR CONTROL

<u>When</u>: Beginning of therapeutic exercise through the end of rehabilitation, may begin without glenohumeral motion or arm elevation, introduction of glenohumeral motion and arm elevation once indicated and scapular control increases

<u>Goals</u>: Facilitate scapular motion and scapular re-education, strengthen scapular musculature in functional movement patterns

<u>Sample Exercises</u>: Trunk diagonals, sternal lifts, shoulder dumps (incorporates glenohumeral elevation and external rotation), tubing fencing, dumbbell or tubing punch/pull, modified dumbbell "cleans"

CLOSED KINETIC CHAIN

<u>When</u>: Begin at the onset of therapeutic exercise and continue throughout the program <u>Goals</u>: Stimulate pain-free co-contractions of the rotator cuff, scapular musculature independently and in coordination; promote glenohumeral compression and dynamic stabilization

<u>Sample Exercises</u>: Weight-shifting on a fixed hand, ball stabilization in appropriate plane and degree of elevation, various levels of push-ups, scapular PNF with UE fixed at 12/6 o'clock and 3/9 o'clock

AXIALLY LOADED EXERCISES

<u>When</u>: Glenohumeral translation or scapulohumeral coordination is determined to be the limiting factor in increasing AROM

<u>Goals</u>: Increase active arm elevation with appropriate rotator cuff and scapular stabilizer co-contractions, facilitation of weakest components of AROM to achieve appropriate, pain-free ROM, transition to active, open kinetic chain arm elevation

<u>Sample Exercises</u>: Table slides, ball rolling, wall slides, Pro-Fitter™ (Fitter International, Calgary, Alberta, Canada)

INTEGRATED EXERCISES

<u>When</u>: After scapular control and AROM is at or approaching normal <u>Goals</u>: Integrated strengthening of scapular, rotator cuff and trunk musculature