Atrium Health Wake Forest Baptist

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**Sports Medicine**

**LATERJET**
Post-Operative Protocol

**Phase I - Maximum Protection – Immediate Post Surgical**
**Weeks 0 to 2:**

- Sling with abduction pillow for 6 weeks.
- No GHJ range of motion for 2 weeks.
- No lifting with affected upper extremity

Goals
- Reduce inflammation and pain
- Protect repair
- Postural education

Manual therapy
- Ice and modalities to reduce pain and inflammation.
- STM – UT and parascapular as needed.
- Effleurage massage to forearm and upper arm as needed.

Exercise progression
- No GHJ ROM x 2 weeks.
- Cervical range of motion and basic deep neck flexor activation (chin tucks).
- Active hand and wrist range of motion.
- Passive elbow flexion.
- Active shoulder retraction.
- Encourage walks and low intensity cardiovascular exercise to promote healing.

**Phase II – Passive Range of Motion**
**Weeks 2 to 4:**

- Sling with abduction pillow for 6 weeks.
- External rotation to neutral only for 4 weeks
- No lifting with affected upper extremity

Goals
- Postural education with cervical spine and neutral scapular positioning.
- PROM
  - Shoulder flexion to 100 degrees by week 4.
  - Internal rotation to 45 degrees at 30 degrees abduction
  - Forward flexion and elevation, abduction in scapular plane to tolerance

Manual therapy
- STM – global shoulder and CT junction.
- Scar tissue mobilization when incisions are healed.
- Graded GH mobilizations.
- ST mobilizations.
- Gentle sub-maximal therapist directed isometrics to achieve range of motion goals.

Exercise progression
- PROM shoulder exercises
- AAROM/AROM elbow, wrist and hand exercises
- Shoulder pendulums.
- DNF and proper postural positioning with shoulder retraction exercises.
- Cervical range of motion.
- Low to moderate cardiovascular work. Walking, stationary bike.

**Phase III – Active Range of Motion**

**Weeks 4-10**

- Sling with abduction pillow for 6 weeks.
- No AROM of shoulder until adequate PROM with good mechanics
- No lifting with affected upper extremity
- No excessive ER ROM/Stretching
- Do not perform activities/strengthening exercises that place an excessive load on anterior capsule (no pushups, pec flys, etc)
- Do not perform scaption with internal rotation (empty can) during any stage of rehabilitation due to the possibility of impingement

Goals

- Passive forward elevation to 155 degrees by week 10.
- Passive shoulder external rotation within 8-10 degrees of contralateral side at 20 degrees abduction.
- Passive shoulder external rotation of at least 75 degrees at 90 degrees abduction
- Active forward elevation of at least 145 degrees with good mechanics
- Appropriate scapular posture at rest and dynamic scapular control with ROM and functional activities
- Internal rotation to belt line.
- Start light waist level activities

Manual therapy

- STM – global shoulder and CT junction.
- Scar tissue mobilization.
- Graded GH mobilizations.
- ST mobilizations.
- Gentle CR/RS to gain range of motion while respecting repaired tissue.

Exercise progression

**Weeks 4-6**

- Progress PROM
  - Forward flexion, elevation, abduction in scapular plane to tolerance
  - IR to 45 degrees at 30 degrees of abduction
  - ER to 0-25 degrees – begin at 30-40 degrees abduction
    - Respect anterior capsule tissue integrity with ER ROM
    - Seek guidance from intraoperative measurements of ER ROM
- Begin posterior capsule stretching as indicated
  - Cross body adduction stretch
  - Sleeper stretch

**Weeks 6-10**

- Progress PROM
  - Forward flexion, elevation, abduction in scapular plane to tolerance
  - IR as tolerated at multiple angles abduction
  - ER to 0-45 degrees – begin at 30-40 degrees abduction – week 6-8
    - After week 8, progress ER as tolerated, at multiple angles of abduction once >35 degrees of ER at 40 degrees abduction is obtained
    - Respect anterior capsule tissue integrity with ER ROM
    - Seek guidance from intraoperative measurements of ER ROM
- Progress to AAROM/AROM activities as tolerated with good shoulder mechanics
- Strengthen scapular retractors and upward rotators

- Initiate balanced AROM/Strengthening program
  - Initially in low dynamic positions
  - High repetition, low resistance (<3 pounds)
  - Exercises should be progressive in terms of muscle demand/intensity, shoulder elevation, stress on anterior capsule
  - Nearly full elevation in scapular plane should be achieved before beginning elevation in other planes
  - Open and closed chain activities
  - No heavy lifting or plyometrics

- Serratus activation; Ceiling punch (weight of arm) many initially need assistance.
- Manual perturbations supine with arm in 90° flexion and ER/IR at 0 degrees.
- Scapular strengthening – prone scapular series (rows and I's). Emphasize scapular strengthening less than 90 degrees.
- External rotation on side (no resistance).
- Prone rows at 30/45/90 degrees of abduction to neutral arm position
- Cervical range of motion as needed to maintain full mobility.
- DNF and proper postural positioning with all RC-SS exercises.
- Low to moderate cardiovascular work. May add elliptical but no running.
- Continue with combined passive and active program to push full flexion and external rotation achieving ROM goals outlined above.
- Stick off the back progressing to internal rotation with thumb up back and sleeper stretch.
- Sub-maximal 6 direction rotator cuff isometrics (no pain).

**Phase IV – Progressive Range of Motion and Strengthening**
**Weeks 10-15**

- Do not overstress anterior capsule with aggressive overhead activities/strengthening
- Avoid contact sports/activities
- Do not perform strengthening or functional activities in a given plane until the patient has near full ROM and strength in that plane
- Patient education regarding a gradual increase to shoulder activities

Goals
- Normalize GH/ST arthrokinematics.
- Normalize strength, endurance and neuromuscular control
- Gradual and planned buildup of stress to anterior joint capsule.
- Appropriate rotator cuff and scapular muscle performance for chest level activities

Manual therapy
- STM and joint mobilization to CT junction, GHJ and STJ as needed.
- CR/RS to gain range of motion while respecting repaired tissue.
- Manual perturbations.
- PNF patterns.

Exercise progression
- Continue with combined passive and active program to push full flexion and external rotation.
- Internal rotation with thumb up back and sleeper stretch.
- Initiate biceps curls with light resistance, progress as tolerated
- Initiate gradually progressed strengthening for pectoralis major and minor
  - Avoid positions that excessively stress anterior capsule
- Progress subscapularis strengthening to focus on both upper and lower segments
  - Pushup plus progression from wall down to floor

        - ½ to ¾ range of motion protecting the anterior shoulder capsule.
      - Cross body diagonals with resistive tubing
      - IR Resistive band (0/45/90 degrees abduction)
    - Continue with ceiling punch adding weight as tolerated.
    - Advance intensity of sub-maximal rotator cuff isometrics.
      - May discontinue once isotonic RC-SS program is fully implemented.
    - Advance prone series to include T's and Y's, adding resistance as tolerated.
    - Resisted ER in side-lying or with bands.
    - Gym: rows, front lat pulls, biceps and triceps.
    - Scaption: normalize ST arthrokinematics.
    - Supine progressing to standing PNF patterns, adding resistance as tolerated.
      - Protect end range 90/90.
    - CKC progression: Quadrupeds, ball compression, counter weight shift, knee scapular push-ups, knee push-ups (all as tolerated).
      - ½ to ¾ range of motion protecting the anterior shoulder capsule.
    - Therapist directed RS and perturbations in quadruped – bilateral progressing to unilateral- tripod position.

**Phase V – Advanced Strengthening and Plyometric Drills**
**Weeks 16-20+**

- Avoid excessive anterior capsule stress
- With weight lifting – avoid tricep dips, wide grip bench press, military press or lat pulls behind head
  - "Always see your elbows"
- Do not begin throwing or overhead athletic moves until 4 months post-op or cleared by MD

Goals
- Gradual progression to full range of motion with protection at end range 90/90.
- Normalize GH/ST arthrokinematics.
- Advance gym strengthening program.
- Begin return to sport progression.
- Evaluation with physician for clearance to full activity around 6 months post op.

Manual therapy
- STM and joint mobilization to CT junction, GHJ and STJ as needed.
- CR/RS to gain range of motion while respecting repaired tissue.
- Manual perturbations.
- PNF patterns.

Exercise progression (PRE/PSE)
- Full range of motion in all planes – protecting end range 90/90.
- Begin strengthening at or above 90 degrees with prone or standing Y's, D2 flexion pattern and 90/90 as scapular control and ROM permit.
  - Patient goals/objectives will determine if strengthening above 90 degrees is appropriate.
- Continue to progress RC and scapular strengthening program.
- Continue with closed chain quadruped perturbations. Add open chain as strength permits.
- Advance gym strengthening program maintaining anterior shoulder precautions with pressing and chest fly exercises.
- Initiate plyometric and rebounder drills as appropriate.
- RTS testing for interval programs (golf, tennis etc.).

Criteria for return to play/discharge
- Full, pain-free range of motion
- Normal GH/ST arthrokinematics

- >90% MMT using handheld dynamometer
- Full progression through interval program

Revised 12/2017