***Open Shoulder Stabilization – Latarjet Procedure***

***Rehabilitation Protocol***

**Please note that these are to be used only as guidelines.**

**All specifics regarding exercises and progression back to sports will be made on an individual basis by your treating providers.**

**Post-Operative Phase I: (Day 1-Week 3)**

Goals:

* Minimize shoulder pain and inflammatory response
* Protect the integrity of the surgical repair
* Achieve gradual restoration of passive ROM
* Enhance/ensure adequate scapular function

Sling:

* To be worn at all times except for showering, dressing, and therapy

PROM:

* Forward flexion and elevation to tolerance
* Abduction in the plane of the scapula to tolerance
* Internal rotation (IR) to 45 degrees at 30 degrees of abduction
* External rotation (ER) in the plane of the scapula from 0-25 degrees; begin at 30-40 degrees of abduction; respect anterior capsule tissue integrity with ER ROM.

Therapeutic Exercises:

* Scapular pendulum exercises progressed to scapular isometric exercises
* Ball squeezes
* Frequent cryotherapy for pain and inflammation
* Patient education regarding posture, joint protection, positioning, hygiene, etc.

Manual:

* Scar and soft tissue massage, joint mobilization

Cardio:

* Stationary bike
* Walking on treadmill
* Elliptical without upper body
* Stair climber

**Progression to Phase II:**

* Achieved at least 100 degrees of passive forward flexion and 30 degrees of passive external rotation at 20 degrees abduction
* Completion of phase I activities without pain or difficulty

**Post-Operative Phase II: (Week4-Week 6)**

Goals:

* Minimize shoulder pain and inflammatory response
* Protect the integrity of the surgical repair
* Achieve full PROM
* To be weaned from sling by the end of week 6
* Begin light waist level activities

Sling:

* May discontinue use of pillow at week 4.
* Begin to wean from sling between weeks 5-6.
* Discontinue sling at week 6

ROM:

* Progress shoulder PROM (do not force any painful motion)
* Forward flexion and elevation to tolerance
* Abduction in the plan of the scapula to tolerance
* IR as tolerated at multiple angles of abduction
* ER to tolerance; progress to multiple angles of abduction once > 35 degrees at 0-40 degrees of abduction.
* Progress to Active Assisted ROM activities of the shoulder as tolerated with good shoulder mechanics. (NO scapularthoracic substitution with up to 90-110 degrees of elevation)

Therapeutic Exercises:

* Begin incorporating posterior capsular stretching as indicated
  + Cross body adduction stretch
  + Side lying internal rotation stretch (sleeper stretch)
* Begin rhythmic stabilization drills
  + ER/IR in the scapular plane
  + Flexion/extension and adduction/abduction at various angles of elevation
* Continue AROM elbow, wrist, and hand
* Strengthen scapular retractors and upward rotations
* Continue cyrotherapy for pain and inflammation

Manual:

* Scar and soft tissue massage, joint mobilization

Cardio:

* Stationary bike
* Walking on treadmill
* Elliptical without upper body
* Stair climber

**Progression to Phase III:**

* Passive forward elevation at least 155 degrees
* Passive external rotation within 8-10 degrees of contralateral side at 20 degrees abduction
* Passive ER at least 75 degrees at 90 degrees abduction
* Active forward flexion at least 145 degrees with good mechanics
* Appropriate scapular posture at rest and dynamic scapular control with ROM and functional activities
* Completion of phase III activities without pain or difficulty

**Post-Operative Phase III: (Week 6-Week 9)**

Sling:

* Discontinue the use of the sling

ROM/Therapeutic Exercises:

* Initiate balanced AROM/ strengthening program
* Initially in low dynamic positions
* Gain muscular endurance with high repetition of 30-50, low resistance 1-3 lbs
* Exercises should be progressive in terms of muscle demand/intensity, shoulder elevation, and stress on the anterior joint capsule.
* Nearly full elevation in the scapular plane should be achieved before beginning elevation in other planes
* All activities should be pain free
* Exercises should consist of both open and closed chain activities
* No heavy lifting or plyometrics should be performed at this time
  + Initiate full scapular plane raises to 90 degrees with good mechanics
* Initiate ER/IR strengthening using exercise tubing at 0 degrees of abduction (use towel roll)
* Initiate side lying ER with towel roll
* Initiate manual resistance ER supine in scapular plane (light resistance)
* Initiate prone rowing at 30/45/90 degrees of abduction to neutral arm position

Manual:

* Scar and soft tissue massage, joint mobilization

Cardio:

* Stationary bike
* Jogging on treadmill up to three miles
* Elliptical with light upper body
* Kick board in swimming pool
* Stair climber

Continue cyotherapy for pain and inflammation

Continued patient education: posture, joint protection, positioning, hygiene, etc.

**Post-Operative Phase IV: (Week 10-Week 15)**

Goals:

* Normalize strength, endurance, neuromuscular control
* Return to chest level full functional activities
* Gradual and planned buildup of stress to anterior joint capsule

Precautions:

* Do not overstress the 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 of movement
* Patient education regarding a gradual increase to shoulder activities

Activity:

* Continue A/PROM as needed/ indicated
* Initiate bicep curls and light resistance, progress as tolerated
* Initiate gradually progressed strengthening for pectoralis major and minor; avoid positions that excessively stress the anterior capsule
* Progress subscapularis strengthening to focus on both upper and lower segments
  + Cross body diagonals and resistive tubing
  + IR resistive band (0,45, 90 degrees of abduction)
  + Forward punch
  + Push up plus (wall and counter)

**Progression to Phase V and Return to sport functional testing:**

* Passive forward elevation WNL
* Passive ER at all angles of abduction WNL
* Active forward flexion WNL with good mechanics
* Appropriate rotator cuff and scapular muscular performance for chest level activities
* Completion of phase IV activities without pain or difficulty

**Post-Operative Phase V: (Week 15- Return to sport)**

Goals:

* Continue stretching and PROM as needed/indicated
* Maintain full non-painful AROM
* Return to full strenuous work activities
* Complete throwing program or overhead activity program

Precautions:

* Avoid excessive anterior capsule stress
* With weight lifting avoid tricep dips, wide grip bench press, no military press or lat pulls behind the head. Be sure to “always see your elbows”
* Do not begin throwing, or overhead athletic moves until 4 months post-op or cleared by MD.

Activity:

* Continue all exercises listed above
  + Progress isotonic strengthening if patient demonstrates no compensatory strategies, is no painful, and has no residual soreness
* Strengthening overhead if PROM and strength below 90 degrees elevation is acceptable
* Continue shoulder stretching and strengthening at least four times per week
* Progressive return to upper extremity weight lifting program emphasizing the larger, primary upper extremity muscles (deltoid, latissimus dorsi, pectoralis major)
  + Start with relatively light weight and high reps (15-25)
* May progress pushup activities from counter to floor
* May initiate plyometric/interval sports program if appropriate/cleared by MD
* May initiate pre injury level activity and prepare for functional testing at MD PT clinic.

Cardio:

* Stationary bike/Spinning bike
* Jogging/Running/Sprinting on treadmill
* Elliptical
* Rowing
* Kick board in swimming pool
* Stair climber