

Rehabilitation Following: Shoulder Latarjet Procedure

Phase I – Immediate Post-Surgical Phase (Weeks 1- 3)

Goals:

- Minimize shoulder pain and inflammatory response (cryotherapy)
- Protect the integrity of the surgical repair and anterior shoulder capsule repair
- Achieve gradual restoration of passive range of motion (PROM)
- Enhance/ensure adequate scapular function

Precautions/Patient Education:

- No active range of motion (AROM) of the operative shoulder
- No excessive ER of motion / stretching. Stop at first end feel felt
- No active IR contractions which recruit the subscap
- Remain in sling, only removing for showering.
- Sleep with sling on, place a towel under the elbow to prevent shoulder hyperextension
- No lifting of objects with operative shoulder
- Keep incisions clean and dry
- Patient education regarding limited use of upper extremity despite the potential

Activity:

- Arm in sling except when performing distal upper extremity exercises (PROM)/Active-Assisted Range of Motion (AAROM)/ (AROM) elbow and wrist/hand
- Begin shoulder PROM (do not force any painful motion)
 - Table slides
 - Supine passive forward elevation
 - 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 (elbow supported)
 - External rotation (ER) in the plane of the scapula from 0-25 degrees
 - Begin at 30-40 degrees of abduction (elbow supported)
 - ***Respect anterior capsule tissue integrity with ER and any AROM IR
- Scapular clock exercises progressed to scapular isometric exercises
- Ball squeezes
- Patient education regarding posture, joint protection, positioning, hygiene, etc.

Milestones to progress to phase II:

- Appropriate healing of the surgical repair.
- Adherence to the precautions and immobilization guidelines.
- Achieved at least 100 degrees of passive forward elevation and 30 degrees of passive external rotation at 20 degrees abduction
- Completion of phase I activities without pain or difficulty

Phase II – Intermediate Phase/ROM (Weeks 4-10)

Goals:

- Minimize shoulder pain and inflammatory response
- Protect the integrity of the anterior shoulder capsule
- Achieve gradual restoration of (AAROM/AROM)
 - Caution Subscap with AROM IR***
- Wean from the sling by the end of weeks 5-6
- Begin light waist level activities (wipe counters, writing, typing, etc.)

Precautions:

- No active movement of shoulder till adequate PROM with good mechanics
- No weight lifting with affected upper extremity
- No excessive ER ROM / stretching
- Do not perform activities or strengthening exercises that place an excessive load on the anterior capsule of the shoulder joint (i.e. no pushups, pec flies, etc.)
 - Avoid excessive subscap firing due to splitting during surgery.
- Do not perform scaption with internal rotation (empty can) during any stage of rehabilitation due to the possibility of impingement

Early Phase II (weeks 4-6):

- Progress shoulder PROM (do not force any painful motion)
- Forward flexion and elevation to tolerance
- Abduction in the plane of the scapula to tolerance
- IR to 45 degrees at 30 degrees of abduction (elbow supported)
- ER to 0-45 degrees; begin at 30-40 degrees of abduction
 - respect anterior capsule tissue integrity with ER range of motion
- Begin incorporating posterior capsular stretching as indicated
- Cross body adduction stretch
- Side lying internal rotation stretch (sleeper stretch)

Late Phase II (Weeks 6-9):

- Progress shoulder PROM (do not force painful motion, however PROM should be full)
- Forward flexion, elevation, and abduction in the plane of the scapula to tolerance
- IR as tolerated at multiple angles of abduction (0-80)
- ER to tolerance; progress to multiple angles of abduction once ≥ 35 degrees at 0-40 degrees of abduction
- Progress to AA/AROM activities of the shoulder as tolerated; good shoulder mechanics
 - minimal to no scapulathoracic substitution
 - 90-110 degrees of elevation
 - Finger ladder
 - Wall walks
 - L-Bar raises
- Begin rhythmic stabilization drills (body blade or manual)
 - ER/IR in the scapular plane (within above listed ABD ROM restrictions)
 - Flexion/extension and abduction/adduction at various angles of elevation
- Continue AROM elbow, wrist, and hand

Progression in Late Phase II

- Strengthen scapular retractors and upward rotators
- Initiate balanced AROM / strengthening program
 - Initially in low dynamic positions
- Gain muscular endurance with high repetition of 20-30, low resistance 1-3lbs
 - Exercises should be progressive in terms of muscle demand / intensity, shoulder elevation, and stress on the anterior joint capsule and Subscap
 - Nearly full elevation in the scapula plane should be achieved before beginning elevation in other planes
 - All activities should be pain free and without substitution patterns
 - Exercises should consist of both open and closed chain activities
 - No heavy lifting or plyometrics should be performed at this time
- Initiate full can scapular plane raises to 90 degrees with good mechanics
- Initiate ER/IR strengthening using exercise tubing at 0° 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

Milestones to progress to phase III:

- Passive forward elevation at least 160 degrees
- Passive external rotation within 10 degrees of contralateral side at 20 degrees abduction
- Passive external rotation at least 60 degrees at 90 degrees abduction

- Active forward elevation at least 150 degrees with good mechanics
- Appropriate scapular posture at rest and dynamic scapular control with ROM and functional activities

Phase III - Strengthening Phase (Weeks 10–16)

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 plan 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 biceps curls with 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
- Push up plus (for Serratus Anterior firing)
 - Wall, counter, knees on the floor, floor)
 - Cross body diagonals with resistive tubing
 - IR resistive band 0, 45, 90 degrees of abduction
 - Forward punch

Milestones to progress to phase IV:

- Passive forward elevation WNL
- Passive external rotation at all angles of abduction WNL
- Active forward elevation WNL with good mechanics
- Appropriate rotator cuff and scapular muscular performance for chest level activities
- Completion of phase III activities without pain or difficulty

Phase IV - Overhead Activities Phase / Return to activity phase (Weeks 16-20)

Goals:

- Continue stretching and PROM as needed/indicated
- Maintain full non-painful AROM
- Return to full strenuous work activities
- Return to full recreational activities

Precautions:

- Avoid excessive anterior capsule stress
- 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 not painful, and has no residual soreness
- Strengthening overhead if ROM and strength below 90 degree elevation is good
- 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 repetitions (15-25)
- May do pushups as long as the elbows do not flex past 90 degrees
- May initiate plyometrics/interval sports program if appropriate/cleared by PT and MD
- Can begin generalized upper extremity weight lifting with low weight, and high
 - repetitions, being sure to follow weight lifting precautions.
- May initiate pre injury level activities/ vigorous sports if appropriate / cleared by MD

Milestones to return to overhead work and sport activities:

- Clearance from MD
- No complaints of pain or instability
- Adequate ROM for task completion
- Full strength and endurance of rotator cuff and scapular musculature for task completion
- Regular completion of continued home exercise program