Posterior Shoulder Stabilization Post-Operative Protocol

This protocol should be used as a guide following shoulder surgery. A physiotherapist should be consulted throughout to teach and individually modify the exercises. This protocol serves as a prescription for physiotherapy.

The timelines for each phase are a general guideline and progression should be based on each individual's presentation. Criteria for progression are at the end of each phase and it may be beneficial to continue previous exercises.

It is recommended that physiotherapy sessions should be spaced at least 1-2 weeks apart to promote an active rehabilitation approach and ensure funding is available for physiotherapy in the strengthening phases.

PATIENT NAME: _____ SURGERY DATE: _____

SURGEON: ☐ Dr. Justin LeBlanc ☐ Dr. Ian Lo

SURGICAL PROCEDURES AND POST-OPERATIVE RESTRICTIONS

☐ Posterior Labral Repair
- Elevation range of motion should be performed in the SCAPTION plane initially.
- No cross body or internal rotation range of motion for 12 weeks.
- No pressing or weightbearing/closed kinetic chain exercises for 12 weeks.

☐ Reverse Remplissage - No rotator cuff strengthening for 14 weeks.

☐ SLAP Repair - No biceps strengthening for 12 weeks.

☐ Reverse Distal Tibial Allograft -

☐ Additional Surgical Procedures: _____

ADDITIONAL INSTRUCTIONS

SLING - Wear for a total _____ weeks after surgery.

PHYSIOTHERAPY – Begin at _____ weeks after surgery.

Please contact our office if there are any questions or concerns.

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PHASE 1 – Immediate Post Operative

This phase involves the initial recovery period after surgery and generally lasts until 4-6 weeks post-operative.

GOALS

Control Pain and Inflammation
Early Protected Shoulder Range of Motion as per restrictions
Maintain Mobility of Joints Surrounding Shoulder

PATIENT EDUCATION

ANATOMY OF THE SHOULDER: The shoulder is made up a ball and socket joint and the articulation of the shoulder blade on the rib cage. The ball and socket joint is a mobile joint supported by ligaments and the labrum (a ring like cartilage structure on the socket that acts like a suction cup). The muscles around the shoulder and shoulder blade, including the rotator cuff, help control the movement of the shoulder.

SLING USE: The sling is for comfort and protection and should be worn for 4-6 weeks after surgery (see front page or booklet). It can be removed when sitting comfortably at home with arm supported, for showering and exercises.

DRIVING: Patients should not drive until surgeon allows them to stop using their sling and when they are no longer on narcotic medications.

SLEEPING: It is recommended that the sling is worn while sleeping. Some find it easier to sleep in a reclining chair or propped up with pillows in bed. The weight of the arm can also be supported on a pillow.

PAIN CONTROL

- Icing: use cryocuff or ice pack/bag of frozen peas. Do not get dressings wet (use plastic bag/wrap between shoulder & ice pack) and a fabric layer between to prevent frostbite. For the first 48 hours following surgery ice for 30 minutes every hour when awake. After this, reduce icing to every 2-3 hours or as needed.
- Medication: follow instructions from surgeon. Family physicians can also be consulted regarding pain control.

RETURN TO WORK: Timelines depend on the type of work and the surgery performed. Sedentary desk work duties can often be tolerated by 3-6 weeks. Returning to work when it is deemed safe to do so by the surgeon has been shown to be beneficial in overall recovery.

EXERCISES

Exercises should be completed 3-5 times per day but can be broken up throughout the day. Every few hours do a few exercises instead of performing them all at once. Perform each movement 10 times and hold each stretch for a count of 5-10. Each time you perform your exercises try to increase the range of motion within the limits listed on the front page. Go until a gentle stretch is felt, but do not push into pain. You should not have increased pain that lasts longer than 30 minutes or prevents you from performing your exercises at the next session. It is important to do your exercises or you may develop a stiff/frozen shoulder.

1. Hand and Wrist Exercises – start immediately after surgery

   i) Open and close your hand by making a fist and then straightening out your fingers.
   ii) Bend your wrist back and forth as if knocking on a door.
   iii) With your elbow at your side and bent at a 90-degree angle, turn palm up and down.

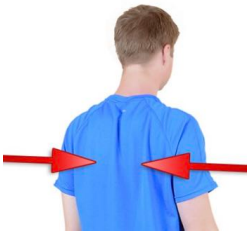
2. Elbow Exercises – start immediately after surgery

   Bend and straighten your elbow. Perform this exercise using the good arm to straighten and bend the elbow. Do not use the muscles of the operated arm. Do not straighten the elbow completely. Stop about 20 degrees short of completely straight.

3. External Rotation Exercise:

With both elbows by your side and your arms bent at 90°, hold a stick (e.g. cane, cut-off broom stick) between your hands. By using the good arm, gently push the operated arm outward from your body using the stick. Keep your elbow against the side of your body. Do not use the muscles of the operated arm to move the shoulder, use the good arm and push the operated arm using the stick. Make sure not to rotate your body. Go into a gentle pain free stretch, pushing only into a gentle stretch only.

4. Shoulder Blade Squeezes – start this exercise immediately after surgery



You can perform this exercise sitting or standing, with or without your sling on. While sitting (or standing) with your back straight, squeeze your shoulder blades gently together towards your spine. Hold for 10 seconds and then relax. Repeat 10 times 3-5 times per day.

5. Shoulder Pendulums – start this exercise immediately after surgery

Bend at the waist so your arm is dangling down. You may want to hold onto a table or chair for support. Gently rock your body weight in a circular motion to move your arm in a circular pattern about the size of a dinner plate or forward/backward and side/side.

OTHER CONSIDERATIONS

Manual Therapy - for Physiotherapist Consideration

- Soft Tissue Massage (e.g. Lat Dorsi, Pecs, Deltoid, UFT)
- Address Cervical/Thoracic Spine Issues (Joint Mobilization and Soft Tissue Massage)
- No glenohumeral joint mobilization or therapist assisted stretching

CRITERIA FOR PROGRESSION TO PHASE 2

- Pain adequately controlled at rest
- Good postural awareness and ability to properly set scapula with arms at side
- Sling discharge (as dictated by surgeon, outlined on first page)

PHASE 2 – Range of Motion and Early Strengthening

This phase starts at sling discharge (approximately 4-6 weeks post operatively) and can last up to 10-12 weeks.

GOALS

Progressive Pain-Free Range of Motion (PROM → AAROM → AROM)
Improve Static and Dynamic Scapular Control
Early Shoulder Strengthening Exercises
Begin Proprioceptive Exercises

PATIENT EDUCATION and POST OPERATIVE PRECAUTIONS

MOVEMENT RESTRICTIONS

- No heavy lifting, pushing and pulling and avoid long lever positions.
- Avoid cross body adduction (reaching across the body) and internal rotation (reaching behind the back).

HEAT/ICE: A heating pad for 15-20 minutes can be used to loosen up the shoulder before working on exercises. Ice can be used for 15-20 minutes after completing exercises and as required for pain relief.

RETURN TO WORK: It is possible to return to sedentary work that involves no lifting or overhead work in this phase of recovery. Specific restrictions and return to work plan for heavier occupations should be discussed with the surgeon.

GENERAL FITNESS/ACTIVITY: It is important to keep active despite the post-operative restrictions. Activities such as walking, treadmill or stationary bike are great options to keep active and not stress the shoulder.

EXERCISES

RANGE OF MOTION - Range of motion exercises should be completed in pain free range of motion and no forced or passive stretching. Continue frequent stretching throughout the day. Elevation range of motion should be done in the SCAPTION plane rather than isolated flexion to reduce stress on the posterior labral repair.

Continue External Rotation Range with Stick

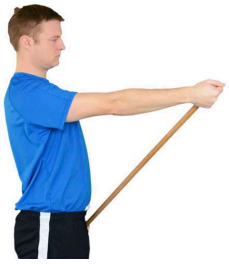
Continue gentle stretch into external rotation following the restrictions as listed by the surgeon on the first page of this booklet.

Ball on Table/Table Slides

Perform AAROM using ball on table or table slides in scaption plane.

Standing AAROM in Scaption Plane with a Stick → AROM

Gradually progress through pain free ROM to 120-140° in the SCAPTION plane and then to full ROM. Use stick for gentle active assisted range of motion and then progress to active range of motion. Start in scaption plane and progress to abduction.



STRENGTHENING - Strength exercises should be done every other day or once per day. Avoid exercising to the point of full fatigue. Begin with light resistance or weight initially and progress as tolerated with a focus on endurance parameters,

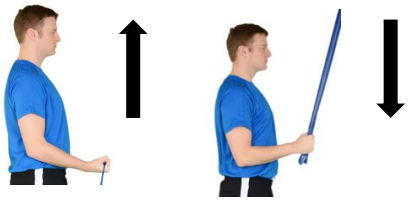
Shoulder Isometrics (Shoulder Extension, Abduction, IR and ER)

This exercise is intended to 'wake up' the rotator cuff. Amount of force is low (~30% of max)– as if pressing into a balloon. Ensure proper scapular positioning and good overall posture. Hold 5 seconds, repeat each direction 5-10 times.

ER/IR with Band (**no ER strengthening until 14 weeks for remplissage procedures)
Progress from isometrics to resisted rotator cuff strengthening if isometrics are pain-free and able to be performed with good technique. Avoid motion into internal rotation past neutral (focus on arc of motion from neutral to external rotation).

Rows (to midline) -> Bent Over Row
Ensure correct scapular positioning prior to initiating rowing motion and maintain this scapular positioning while arms are moving forward and back. Stop once you reach midline.

Biceps/Triceps
With proper scapula and neutral shoulder position, can begin biceps/triceps strengthening with light resistance. See cover page for any restrictions for biceps tenodesis procedures.



OTHER CONSIDERATIONS

Manual Therapy - for Physiotherapist Consideration

- Soft Tissue/Scar Massage (As per Phase 1, can begin gentle release of repaired rotator cuff)
- Address Cervical/Thoracic Spine Issues (Joint Mobilization and Soft Tissue Massage)
- No glenohumeral joint mobilization or therapist assisted shoulder range of motion

CRITERIA FOR PROGRESSION TO PHASE 3

- Sufficient passive and active range of motion without pain and compensation
  - No shoulder hiking, scapular winging or trunk side flexion/extension
  - ~75% of passive range of motion
  - Able to actively elevate arm to 120-140° with good control
- Good scapular positioning and postural awareness at rest and dynamic scapular control with range of motion exercises

PHASE 3 – Progressive Shoulder Strengthening

This phase involves progressive shoulder strengthening starting at 10-12 weeks post-operative.

GOALS

Continued Protection of Healing/Repaired Tissues
Achievement of Full Functional Range of Motion
Initiate Rotator Cuff Strength and Neuromuscular Control

PATIENT EDUCATION and POST OPERATIVE PRECAUTIONS

MOVEMENT RESTRICTIONS AND PRECAUTIONS

- Avoid long lever exercises and caution with heavy lifting.
- Progress slowly with weightbearing and pressing exercises as these directly load the posterior shoulder.
- Caution with overhead activities. Return to sport and overhead activities (aside from exercises) should be delayed until full strength and range of motion has been achieved. Clearance for return to activity should be discussed with the physiotherapist and surgeon.

ACTIVITY LEVELS/PAIN: Avoid posterior shoulder pain with activities and exercises. Post activity soreness should be mild and subside within 24 hours. If it lasts longer, consider ramping back activities to keep symptoms controlled.

GENERAL FITNESS: Continue cardiovascular endurance exercise and incorporate lower extremity, core and back strength into exercise regime. Can progress back into running as tolerated.

EXERCISES

RANGE OF MOTION

If full active and passive range of motion have not been achieved continue to work on range of motion exercises listed in Phase 2. Range of motion can be progressed by doing active assisted range of motion with gentle stretching into end ranges. No stretching into flexion, adduction or internal rotation (cross body/posterior capsule stretching).

STRENGTHENING

Shoulder Press

Gradually transition into flexion exercises with a dumbbell press. Encourage scapular protraction when pressing up. Can progress to spelling alphabet (start with small letters).

Progressive Rotator Cuff Strengthening

- If remplissage procedure performed (see cover page), start with ER/IR in neutral at 14 weeks.
- Progress ER/IR into 30-45° scaption plane (and then shoulder level) if cuff is strong in neutral and good scapular control. Can start in seated with elbow supported using band or dumbbell and progress into standing.
- Also consider side lying with external rotation with a weight.

Weightbearing/Closed Kinetic Chain Exercises

- Start with wall push ups with wide arm position encouraging protraction in the top of the push up. Progress into increased weightbearing as tolerated (i.e. wall push up → 4 Point Kneeling → Plank on Elbows → Plank on Toes).

Additional Exercise Considerations

- Continue Phase 2 exercises as required with increased resistance (I.e. Seated Row, Biceps Curls, Triceps Extensions).
- Incorporate core and lower extremity exercises

OTHER CONSIDERATIONS

Hydrotherapy: can consider performing range of motion exercises in the pool can be helpful in improving range of motion. Swimming motions/strokes should continue to be avoided at this time.

Manual Therapy - for Physiotherapist Consideration

- Continue as per Phase 2 (No glenohumeral joint mobilization)
- Can begin supine Rhythmic Stabilization for Proprioception

CRITERIA FOR PROGRESSION TO PHASE 4

- Full functional range of motion without pain and compensation
- Demonstrates adequate endurance and correct technique with strengthening exercises (e.g. 4 sets of 15 reps with medium resistance)
- Improvement in strength demonstrated with resisted isometric testing in neutral

PHASE 4 – Advanced Strength/Graduated Return to Activity

This phase involves functional and activity specific strengthening and can start as early as 14-16 weeks.

GOALS

The goals of this phase will be specific to each patient and will relate to the specific work and recreational activities that the patient is looking to return to as well as the surgical procedures performed on their shoulder.

PATIENT EDUCATION and POST OPERATIVE PRECAUTIONS

GYM ROUTINES

- Patients can begin to return to a gym program focusing on low load, hypertrophy drills.
- Emphasis should be placed on ensuring proper technique and caution should be taken with exercising to fatigue.
- Avoid lifting in long lever positions (e.g. front and lateral raises) and perform short lever motions instead.

INJURY PREVENTION AND MAINTENANCE

- Incorporating rotator cuff and shoulder strengthening exercises into a regular workout regime in the long term, in particular as a warm up for gym and recreational activities, is important to maintain the strength and dynamic stability of the shoulder. Patients are encouraged to continue to work on strength and dynamic stability program long term following their surgery a few times per week to stay strong and protect the shoulder.

EXERCISES

RANGE OF MOTION – Continue range of motion exercises as required. There may be mild end range of motion limitations following this type of surgery. Passive / gentle end range stretching may be performed if recommended by the surgeon.

STRENGTHENING

Exercises from Phase 3 can be continued as required to achieve full functional range of motion and strength. Phase 4 exercises focus on specific functional demands required by each patient for their occupation and recreational activities. Be mindful that Phase 4 will be different for every patient depending on their specific functional requirements, tissue quality and expected surgical outcome.

Exercises should be performed as part of a regular workout 3-4 times per week with exercise parameters focusing on developing muscular endurance and adequate recovery between exercise sessions. All exercises should continue to be performed in pain-free range and with proper technique. Physiotherapists will be able to assist patients with appropriate exercise prescription and the surgeon will provide guidance on timelines for return to occupational and recreational activities.

Examples of Exercises for Phase 4 Rehabilitation include:

- Continue ER/IR strengthening into 90 degrees scaption/abduction plane
- Resisted PNF Patterns
- Advanced Weightbearing Exercises
    - Other options for weight bearing exercises include planks +/- shoulder taps, on bosu or wobble board, etc. Caution is advised with weightbearing exercises as this loads the posterior shoulder (and repaired structures). Progress gradually and ensure there is no pain in the posterior aspect of the shoulder.

- Throwing Program
    - External Rotation Toss/Catch: toss the ball up from the start position and catch as it falls. Can progress from light ball to weight toning ball (3-5lb).
    - Ball Tossing on Wall: start at waist to shoulder level, progress Into overhead positions.
    - Throwing/Catching: start with light underhand toss/catch with a partner. Progress gradually into overhead and increased speed.

Functional/Sport Specific Drills/Gym Routines

It is important for patients to practice the specific drills and functional tasks they will need to perform prior to returning to game play, occupational activities, heavier ADL tasks, etc. These will be unique to each patient and can include skills such as throwing, stick/puck handling or lifting mechanics. Patients can also begin to return to the gym with low load exercises with slow progression of weights and with the considerations discussed above in mind.

CRITERIA FOR RETURN TO SPORT/WORK/ACTIVITY

- Timelines for return to sport and recreational activities involving the use of the surgical arm as well as contact sports should be discussed with the surgeon.
- Returning to occupations that involve medium to heavy lifting (30+ lbs) and overhead work/lifting should also be discussed with the surgeon.

Please feel free to contact our office if there are any questions or concerns.

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