

OPEN LATARJET FOR ANTERIOR STABILIZATION CLINICAL PRACTICE GUIDELINE; **TRADITIONAL AND ACCELERATED**

Background

Ohio State's Latarjet Anterior Shoulder Stabilization Rehabilitation Guideline is to be utilized following open anterior shoulder stabilization procedures. During the procedure the anterior coracoid is harvested and attached to the deficient portion of the anterior glenoid to improve stability. During surgery the subscapularis will be either split or taken down and repaired. Ohio State's **TRADITIONAL** Latarjet Anterior Shoulder Stabilization Rehabilitation Guideline is to be utilized following an anterior stabilization **when the subscapularis is taken down and repaired.**

The **ACCELERATED** Latarjet Anterior Shoulder Stabilization Rehabilitation Guideline is to be utilized **when the subscapularis is split – and not taken down.** It is imperative that the treating therapist understands which technique was utilized in surgery. This rehabilitation guideline is intended to be used in conjunction with the therapist and surgeon's collaborative input. Therapists should obtain the operative note to ensure an understanding of the procedure performed. Please consult referring surgeon for operative note.



Summary of Recommendations

Risk Factors	Traditional and Accelerated: <ul style="list-style-type: none"> Excessive joint laxity Exceeding guideline ROM recommendations/goals History of instability Comorbidities including, but not limited to, connective tissue disorders 	
Precautions	Traditional and Accelerated: <ul style="list-style-type: none"> No supporting of body weight with affected side (i.e. pushing self up from a chair) Progression of ROM should not be forced and is per patient's tolerance Refer back to surgeon with any positive apprehension testing Limit active biceps AROM for first 6-8 weeks due to detachment of coracobrachialis and short head of the biceps for 6 weeks Avoid heavy bicep exercises for 12 weeks Return to jogging should be not initiated until 10-12 weeks depending on patient presentation and physician clearance Return to non-contact sport 5-6 months; minimum of 6 months for contact sports and climbing Initiation of throwing program around month 4 with goal of return to game at 9 months No Olympic lifting or bar bench press until 6 months 	
	Traditional: <ul style="list-style-type: none"> ROM (precautions must be followed for 6 weeks) <ul style="list-style-type: none"> No ER past 30 degrees No cross body adduction No active IR or IR behind the back Avoid extension behind the body 	Accelerated: <ul style="list-style-type: none"> ROM (precautions must be followed for 6 weeks) <ul style="list-style-type: none"> No ER past 30 degrees No cross body adduction No active IR or IR behind the back Avoid extension behind the body <u>Resisted IR may begin at 4 weeks</u>
Manual Therapy	Traditional and Accelerated: <ul style="list-style-type: none"> Passive ROM not to exceed guideline Soft tissue mobilization per clinical judgment Joint mobilizations per guideline to reduce pain and improve mobility 	
Corrective Interventions	Traditional and Accelerated: <ul style="list-style-type: none"> Therapeutic exercises to optimize rotator cuff and periscapular strength Neuromuscular re-education to improve joint stability and proprioception Therapeutic activity to improve ADL and leisure activities Manual (PROM, AAROM, AROM) to restore normal ROM per guidelines Modalities to control pain and swelling 	
Outcome Testing	Traditional and Accelerated: <ul style="list-style-type: none"> Disability of Arm Shoulder and Hand (DASH) Questionnaire Kerlan-Jobe Orthopaedic Clinic (KJOC) Questionnaire 	



Criteria for discharge with return to sport (6-12 months)	Traditional and Accelerated: <ul style="list-style-type: none"> • Full AROM appropriate for patient • 5/5 MMT shoulder and scapular strength • No substitution patterns • Independent with home exercise program per patient needs • Low pain scores • Return to full abilities with ADLs • Initiation and guidance with return to sport phase
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Phase I: Protection (Post Surgical– 0-6 weeks)

Post Operative to 6 weeks	Goals Traditional and Accelerated: <ul style="list-style-type: none"> • Max protection of surgical repair (capsule, ligaments, labrum, sutures) • Achieve staged ROM goals - do not significantly exceed • Patient education on post-op restrictions and maintaining appropriate posture • Minimize shoulder pain and inflammatory response • Ensure adequate scapular function
Post Operative to 3 weeks	Traditional and Accelerated: Protection <ul style="list-style-type: none"> • Sling usage 6 weeks (discuss with physician) including while sleeping ROM Goals by week 3 <ul style="list-style-type: none"> • All ROM is to first end feel only • Forward elevation to 90 degrees (or to initial tissue barrier if beyond 90 degrees) • ER in scapular plane to 20 degrees (no ER at 90 degrees abduction) • No abduction or internal rotation • Elbow/wrist/hand ROM as tolerated
Weeks 4 to 6	ROM Goals by week 6 Traditional and Accelerated: <i>PROM</i> <ul style="list-style-type: none"> • Forward elevation limited to 135 degrees • IR to 50 degrees • Abduction to 115 degrees • ER in the scapular plane to 30 degrees • ER at 90 degrees abduction to 30 degrees <i>Start AAROM</i> <ul style="list-style-type: none"> • Cane and wall walks with limitations to 135 degrees • Pendulum exercises <i>AROM</i> <ul style="list-style-type: none"> • Begin at week 4 within limitations to 115 degrees flexion • <i>May begin elbow AROM</i>



	<p>Strengthening Traditional:</p> <ul style="list-style-type: none"> • Begin submaximal isometrics (ER, Abduction, Flexion, Extension to hip only. No IR) • Scapular stabilization (scapular clocks) • ER with light, non-fatiguing theraband at 30 degrees of abduction (open pack position) - within ROM restrictions 	<p>Strengthening Accelerated:</p> <ul style="list-style-type: none"> • Begin submaximal isometrics (ER, IR, Abduction, Flexion, Extension to hip only) • Progress to maximal isometrics as tolerated • Scapular stabilization (scapular clocks) • By 6 weeks: theraband or lightly weighted exercises including IR, ER, extension, rows, triceps
	<p>Cardiovascular Traditional and Accelerated</p> <ul style="list-style-type: none"> • stationary bike at 4-5 weeks 	
Goals to Progress to Next Phase	<ol style="list-style-type: none"> 1. Appropriate healing of surgical repair by adhering to precautions and immobilization guidelines 2. Staged ROM goals achieved but not significantly exceeded 3. Minimal to no pain with ROM 	

Phase II: Intermediate Phase

Weeks 7 to 12	<p>Goals Traditional and Accelerated:</p> <ul style="list-style-type: none"> • Achieve staged ROM goals to normalize PROM and AROM – do not significantly exceed • Minimize shoulder pain • Begin to increase strength and endurance • Increase functional activities
Weeks 7 to 9	<p>ROM Goals by week 9 Traditional and Accelerated:</p> <p><i>PROM</i></p> <ul style="list-style-type: none"> • May perform joint mobilizations (emphasis on posterior mobility) • Forward elevation 155 degrees • IR at 90 degrees of abduction to 60 degrees by week 8-9 • ER at 20 degrees ABD to 60 degrees • ER at 90 degrees ABD to 75 degrees • Initiate posterior capsule stretching <p><i>AROM</i></p> <ul style="list-style-type: none"> • Elevation to 145 degrees <p>Strengthening Traditional and Accelerated:</p> <ul style="list-style-type: none"> • Begin light UBE • Continuation of PRE's for scapular stabilizers (rows, shoulder extension, scapular retraction) utilizing low load, high repetition of 12-15 repetitions • Dynamic resistance with PNF patterns and manual techniques • Elbow extension strengthening using light weight/high reps • Begin CKC exercise with table/wall weight shifts while keeping hands shoulder width or



	<p>closer</p> <ul style="list-style-type: none"> • Initiate light resistance band ER/IR at 8 weeks • Initiate SA punches at 9 weeks
Weeks 10 to 12	<p>Traditional and Accelerated:</p> <ul style="list-style-type: none"> • Initiation of jogging with physician clearance <p>ROM Goals by week 12</p> <p>Traditional and Accelerated:</p> <p><i>PROM</i></p> <ul style="list-style-type: none"> • WNL all planes <p><i>AROM</i></p> <ul style="list-style-type: none"> • Elevation WNL <p>Strengthening-</p> <p>Initiate progressive loading program in this phase. Be aware to minimize stress placed on the anterior shoulder-don't overstress the anterior capsule (avoid deep push-ups, presses with elbows in extension, etc).</p> <p>Traditional and Accelerated:</p> <ul style="list-style-type: none"> • Initiate subscapularis resistance training • Initiate bicep curls at 10 weeks (light resistance initially) • Initiate dumbbell and free weight training at 10 weeks • Initiate push ups at 10-12 weeks (neutral position) • Progress PREs in all planes using progressive weight and high repetitions • Rhythmic stabilization i.e. prone medicine ball eccentric drops, free throws, ball taps, etc. • Progress CKC exercises while keeping hands shoulder width or closer
Goals to Progress to Next Phase	<ul style="list-style-type: none"> • Staged AROM goals achieved with minimal to no pain and without substitution patterns • Appropriate scapular posture at rest and dynamic scapular control during ROM and strengthening exercises • Strengthening activities completed with minimal to no pain

Phase III: Advanced Activity Phase

Weeks 12-20	<p>Goals</p> <p>Traditional and Accelerated:</p> <ul style="list-style-type: none"> • Normalize strength, endurance, neuromuscular control, and power • Gradual and planned build up of stress to anterior capsulolabral tissues • Gradual return to full ADLs, work, and recreational activities
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Weeks 12 to 16 ROM

Traditional and Accelerated:

- Terminal ER stretches at 12 weeks
- Self-capsular stretches, AROM, and passive stretching as needed

Strengthening

Traditional and Accelerated:

- Advanced isotonic
- Initiate plyometrics (2-handed drills) i.e. chest pass
- Ball catch/toss at 90 degrees abduction position
- Begin dumbbell pec exercises with reduced motion in horizontal abduction to 45 degrees
- Begin light resistance training except: military press, pull ups, behind head pull-downs, overhead tricep extensions.
- Elbow should stay at or in front of midline of the body to reduce anterior shoulder stress early in this phase
- Advance push ups with elbows >90 at or following week 16
- Initiate overhead strengthening at week 16

Phase IV: Return to Sport/Activity

Weeks 16 to 20 ROM

Traditional and Accelerated:

- May begin more aggressive stretching techniques

Strengthening

Traditional and Accelerated:

- Begin overhead PRE's – never behind midline of body
 - Begin light toss or volley (refer to return to throwing program)
 - Continue with specific training program
 - Return to full activity
 - Bench Press with bar at 6 months
1. Progress functional activities towards return activity or sport
 2. Enhance neuro-muscular control
 3. Improve strength, power, and endurance
 4. Muscular strength no less than 80% of contralateral side
 5. Full functional ROM
- 5/5 scapular and rotator cuff strength

Goals to Progress to Return to Sport



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