



# Duke Sports Medicine

## Open Anteroinferior Capsular Shift/Open Bankart Repair Protocol

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### PHASE I/Immediate Post-Operative Phase (Proliferation): Generally 0 - 6 Weeks Post-Op

<b>GOALS:</b>	<ol style="list-style-type: none"> <li>1. Control Pain and Swelling</li> <li>2. Protection of surgical repair</li> <li>3. Avoid "stiff" shoulder</li> </ol>																				
<b>PRECAUTIONS:</b>	<p><b>NO</b> Active use of arm</p> <p>Avoid increasing shoulder ROM too rapidly so that labral repair is not compromised</p> <p>Tabletop activities such as writing, dining, and using the computer are permitted</p> <p><b>No PROM or pulleys unless specified by provider</b></p>																				
<b>SLING</b>	Wear sling x6 weeks post-op																				
<b>ROM</b>	<p>AAROM as tolerated with wand in supine with scapular depression and progress to pulley 0-60°</p> <table border="1"> <thead> <tr> <th></th> <th>Flexion</th> <th>Abduction</th> <th>ER</th> <th>IR</th> </tr> </thead> <tbody> <tr> <td>Weeks 1-3</td> <td>90°</td> <td></td> <td>30°</td> <td>To posterior belt line</td> </tr> <tr> <td>Weeks 4-6</td> <td>135°</td> <td></td> <td>50°</td> <td></td> </tr> <tr> <td>Weeks 6-8</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Flexion	Abduction	ER	IR	Weeks 1-3	90°		30°	To posterior belt line	Weeks 4-6	135°		50°		Weeks 6-8				
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	Week 12	0-175°			
<b>Wound Care</b>	<p>Post-op dressing remains intact until post-op day #5</p> <p>May shower after post-op day #5 once dressing is removed</p> <p><b>Do <u>NOT</u> submerge</b> shoulder in tub or pool for 4 weeks</p> <p>Suture removal or incision check @ 10-14 days post-op, per Ortho/PT</p>				
<b>CRYOTHERAPY:</b>	<p>Cold with compression (e.g. CryoCuff, ice with compression wrap)</p> <ul style="list-style-type: none"> <li>Hourly for 15 minutes for first 24 hours, until acute inflammation is controlled</li> <li>After acute inflammation is controlled: 3x per day for 15 minutes or longer as tolerated</li> </ul>				
<b>REHABILITATION:</b>	<p>Frequent use of CryoCuff and/or ice</p> <p>Begin scar massage after incision site sloughs/scar is formed</p> <p>Exercise prescription is dependent upon the tissue healing process and <i>individual</i> functional readiness in <i>all</i> stages. If any concerns or complications arise regarding the progress for any patient, physical therapy will contact the orthopedic surgeon.</p>				
~1-2 weeks	<p>AAROM shoulder flexion in supine-<i>using wand or unaffected hand</i></p> <p>Hand squeezing exercises</p> <p>Elbow and wrist AROM with shoulder in neutral position at side</p> <p>Modified pendulums in sling, progress to full pendulum exercises after 3-5 days</p> <p>Scapular retraction without resistance, scapular depression into the ball on table with shoulder in sling</p>				

	<p>Gentle submaximal shoulder isometrics in neutral for flexion, extension and abduction</p> <p>Scapular retraction without resistance, scapular depression</p> <p>Cardiovascular training: stationary bike with sling</p>
~2-4 weeks	<p>Initiate IR and ER submax isometrics</p> <p>Full pendulum exercises</p> <p>Resisted elbow/wrist exercises (light dumbbell)</p> <p>Scapular stabilization ball on table (<i>progress from holds to circles-cw &amp; ccw</i>)</p> <p>Cardiovascular training: stationary bike with sling</p>
~4-6 weeks	<p>Scapular retraction prone without resistance, scapular stabilization ball on wall with arm in sling</p> <p><b>Begin aggressive posterior capsule stretching: cross arm stretching, sleeper stretch</b></p> <p><b>Glenohumeral joint mobilizations: posterior/inferior</b></p> <p><b>Progress to full AROM against gravity</b></p> <p><b>Rhythmic stabilization</b></p> <p>Cardiovascular Training: walking progression program on TM, bike, elliptical or stairmaster; <i>as approved by surgeon</i></p> <p>LE strength training: Hip 4way, Leg press, calf raises, HS curls</p>
<b>FOLLOW-UP:</b>	<p>Supervised rehab: 1-2x per week</p> <p>Physical Therapist Re-evaluation: monthly</p> <p>Ortho Re-evaluation: ~2 &amp; 6 weeks post-op <b>Belvoir says 6week follow up only</b></p>
<b>CRITERIA FOR PROGRESSION:</b>	<p>Minimal pain</p> <p>Near full passive ROM</p>

## PHASE II (Remodeling): Generally 6-12 Weeks Post-Op

<b>GOALS:</b>	<ol style="list-style-type: none"><li>1. Full shoulder flexion and internal rotation, ~90% full ER</li><li>2. Pain-free ADLs</li></ol>
<b>PRECAUTIONS:</b>	<p><b>NO</b> pushups, heavy lifting, or other sports participation</p> <p><b>NO</b> repetitive overhead use of shoulder</p> <p>*Overhead ER: starts at week 8</p> <p>*Horizontal abduction: starts after 8<sup>th</sup> week after surgery (mass general)</p>
<b>SLING</b>	Wean from wearing sling/immobilizer per Ortho/PT guidance
<b>REHABILITATION:</b>	<p>Continue phase I exercises as needed</p> <p>Progress to the following exercises and increase intensity gradually when patient is ready (i.e., no increase in shoulder pain or stiffness since the previous exercise session)</p> <p>All strengthening should be done, starting with low weights, high repetitions, and in a painless ROM</p>
~6-9 weeks	<p>UBE</p> <p>Shoulder AROM and AAROM exercises: Wand, pulley, towel stretch, sleeper's stretch, etc.</p> <p>Shoulder PROM: Flexion, Abduction, IR, ER; goal for full PROM in all planes by 9 weeks</p> <p>Progressive strengthening: ER &amp; IR with arm at side, FF &amp; scaption to 60-90°, prone rows</p> <p>Body blade, ball toss (2 handed)</p> <p>Continue rhythmic stabilization</p>

	<p>Weight shifting for prone stabilization: sitting to standing to quadruped</p> <p>Scapular Stabilization: retraction with resistance (<i>seated row to prone rows, TB rows</i>), scapular stabilization ball circles, quadruped weight shifts, <i>push-up plus</i></p> <p><i>Tricep Extensions, Latissimus pull downs, bicep curls</i></p> <p>Aquatic Therapy: Beginning level pool program – no overhead strokes, no UE resistive exercises</p> <p>Continue Bike, elliptical, stairmaster as desired</p>
~9-12 weeks	<p>Shoulder PROM/mobilization as needed to regain full ROM</p> <p><i>Progress into low level UE dynamic stretching program:</i></p> <ul style="list-style-type: none"> <li>• <i>Ball on wall vs. Theraball on Table</i></li> <li>• <i>T-spine Shoulder Sweeps/Thoracic Spine Open Books</i></li> <li>• <i>Alternating shoulder taps with patient in wall push-up position</i></li> <li>• <i>Double or Single Arm Serratus Press with Foam Roller</i></li> <li>• <i>I's, Y's and T's</i></li> </ul> <p>Shoulder strengthening IR/ER with shoulder in 30deg scaption</p> <p>Scapular stabilization: tall plank holds, quadruped weight shifts</p> <p><i>Begin gentle overhead strengthening: avoid excessive anterior capsule stress: ER/IR in 90/90, D1/D2 flexion &amp; extension</i></p> <p>BAPS on hands</p> <p>Ball toss with arm at side</p> <p><i>IR ball toss (arm at side)</i></p> <p>Tall plank wall walks</p> <p>Body blade: <i>flex/ext, IR/ER, sup/inf (arm at side to 90deg)</i></p> <p>Rhythmic stabilization shoulder at 90deg</p> <p>Begin Treadmill-Running progression program</p>

	<p><b>Week 10:</b></p> <p>Begin sport specific training:</p> <ul style="list-style-type: none"> <li>• Basketball: dribbling, chest and bounce pass</li> <li>• Golf: putting</li> <li>• Volleyball: bumping</li> <li>• Pool: jogging, treading</li> </ul>
<b>FOLLOW-UP:</b>	<p>Supervised rehab: 2-3x per week</p> <p>Physical Therapist Re-evaluation: monthly</p> <p>Ortho Re-evaluation: ~12 weeks post-op</p>
<b>TESTING:</b>	<i>Timed Functional Arm and Shoulder Test –once full IR/ ER ROM'</i>

<b>PHASE III (Maturation): Generally 4-6 months post-op</b>	
<b>GOALS:</b>	<ol style="list-style-type: none"> <li>1. Push-ups at own pace without pain</li> <li>2. <math>\geq 90\%</math> internal/external rotation strength return</li> <li>3. <b>Pass alternate APFT at 12 months post-op</b></li> </ol>
<b>PRECAUTIONS:</b>	<p><b>NO</b> participation in contact/collision sports or military schools until ~9 months post-op</p> <p><b>Avoid heavy overhead lifting and 90/90 position until 9 months post-op</b></p>
<b>REHABILITATION:</b>	<p>Continue Phase II exercises as needed</p> <p>Progress to the following exercises and increase intensity gradually when patient is ready (i.e., no increase in shoulder pain or stiffness since the previous exercise session)</p> <p>All strengthening should be done, starting with low weights, high repetitions, and in a painless ROM</p>

<p>~Months 4-6</p>	<p>Continue appropriate previous exercises</p> <p><b>Progressive strengthening:</b> ER/IR with shoulder in 45-90° elevation, FF/scaption to 90-120°,</p> <p>May also begin general light intensity strengthening with shoulder in “safe” position</p> <p>Ball toss overhead (2 handed) progress to behind back toss</p> <p>Push-up progression- Wall to Table (no elbow flexion &gt;90 deg)</p> <p>Standing TB chops and lifts within ROM</p> <p>Scapular stabilization: tall plank wall walks, quadruped weight shifts with Bosu, banded “push outs,” plank weight shifts with Bosu</p> <p>Rhythmic supine stabilization: 60°-120°</p> <p>Sit Ups</p> <p>Weight training with light resistance: No elbow flexion &gt;90 deg with bench, dips, etc</p> <p>Progressive sports training beginning month 5 at 25-50% intensity:</p> <ul style="list-style-type: none"> <li>• Basketball: shooting within the key only</li> <li>• Golf: chipping, short irons Volleyball: setting</li> <li>• Pool: No overhead strokes</li> <li>• Tossing Frisbee</li> <li>• Catching drills: below 90°</li> </ul>
<p>~Months 6+</p>	<p>Progress into high level UE dynamic stretching program:</p> <ul style="list-style-type: none"> <li>• Banded “Steering wheel” with TB around forearms</li> <li>• 3 point air taps with TB around forearms</li> <li>• Full Plank alternating Lateral Walks with feet under sliders</li> <li>• Bear Crawls (<i>progress to banded bear crawls</i>)</li> </ul> <p>Shoulder strengthening: IR/ER in 45-90deg scaption with gradual move into 90 abd</p>

	<p>Push-up progression- table to knees (no elbow flexion &gt;90 deg)</p> <p>Scapular stabilization: tall plank stabilization with theraball</p> <p>Bench Press Progression</p> <p>Body blade throughout planar and dynamic ROM's to tolerance</p> <p>Tall kneeling chops and lifts</p> <p>Overhand diagonal toss (2 handed) to regular throwing toss</p> <p>Progressive weight training-limit elbow flexion &gt;90 deg: Bench press, supine dumbbell pec major flys, overhead dumbbell press</p> <p>Biceps curl</p> <p>Triceps Press</p> <p>Deadlifts: dumbbell and progress to barbell</p> <p>Running progression to track</p> <p>Transition to home/gym program</p> <p>Sport Specific Drills:</p> <ul style="list-style-type: none"> <li>• Basketball: noncontact drills only</li> <li>• Golf: gradual return</li> <li>• Volleyball: gradual return at 6 months</li> <li>• Pool: gradual return to overhead strokes as tolerated</li> <li>• Forehand, backhand racquet sports (no overhead)</li> </ul>
<b>FOLLOW-UP:</b>	<p>Supervised rehab: 1-2x per week</p> <p>Physical Therapist Re-evaluation: monthly</p> <p>Ortho Re-evaluation:~6 months post-op</p>
<b>TESTING:</b>	<p>Timed Functional Arm and Shoulder Test<sup>7</sup></p>



	<p>CKCUE Strength Test<sup>8,9</sup>— <i>must be able to sustain a tall plank position without increased pain prior to completing test</i></p> <p>Unilateral Shot put test<sup>5</sup></p> <p>Performed with 6 pound medicine ball, seated against wall, knees flexed to 90</p> <p>Goal: Dominant arm limb symmetry <math>\geq 95\%</math></p> <p>Non-dominant arm limb symmetry <math>\geq 85\%</math></p> <p>Upper quarter Y-balance test <sup>6</sup></p> <p>Pushup position, feet no greater than 12 inches apart</p> <p>Goal: <math>\geq 90\%</math> limb symmetry, calculated by composite reach score</p>
<b>MISCELLANEOUS:</b>	<p>After 6-9 months post-op: Exercises in phase III are continued, gradually increasing intensity &amp; duration as tolerated.</p> <p>The recommendation is to wait until 9-12 months post-op to return to contact/collision sports or aggressive military training (i.e., airborne school). This time period may be adjusted slightly by the surgeon and therapist according to patient progress.</p>

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