

# **AC Joint Reconstruction Protocol**

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PHASE I/Immediate Post-Operative Phase: Generally 0-8 Weeks Post-Op		
GOALS:	<ol> <li>Protect surgical repair</li> <li>Avoid a "stiff" shoulder</li> <li>Restore ROM</li> <li>Pain Control and edema reduction</li> </ol>	
PRECAUTIONS:	Wear sling/immobilizer <b>at all times</b> ( <i>even while sleeping</i> ) <u>NO</u> elevation of shoulder past 90° <u>NO</u> jogging/running	
SLING/ IMMOBILIZER:	Sling/Immobilizer <b>must be worn</b> (even during sleep) except during rehabilitation Sling/Immobilizer continues for <b>6 weeks</b>	
WOUND:	Bandage/dressing to stay on for 48 hours after surgery May begin showering after post-op day #2 (no need to cover incision site) <b>Do NOT</b> submerge shoulder in tub or pool for 4 weeks Suture/staple removal @ 10-14 days post-op, per Ortho/PT	
CRYOTHERAPY	<ul> <li>Cold with compression/elevation (e.g CryoCuff, ice with compression wrap)</li> <li>every hour for 15 minutes for the 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>	
REHABILITATION:	Frequent use of CryoCuff and/or ice with extremity elevated Begin scar massage after incision site sloughs/scar is formed Begin the following exercises	
Post-op days 1-7	Hand squeeze exercises Elbow and wrist AROM with shoulder in neutral at side Supported pendulum exercises	
~weeks 1-3	Goals: pain control; AAROM flexion to 90 degrees, abduction to 60 degrees <b>Exercises</b> AAROM supine with wand - Flexion to 90 degrees - Abduction to 60 degrees - ER as tolerated Gentle shoulder shrugs/scapular retraction without resistance 1-2 finger isometrics x 6 Stationary bike wearing sling Modified Supine Pendulum	

~weeks 4-6	Goals: maintain AAROM flexion 90 degrees, abduction 60 degrees <b>Exercises</b> Continue previous exercises as appropriate AAROM supine with wand: ER as tolerated, Flex and Abd same as above AROM limb supported flexion and abduction to pain Full pendulum exercises Light theraband exercises
	<ul> <li>ER and IR w/ pillow/towel under arm</li> <li>Flexion, extension, abduction, scaption to 60 degrees</li> <li>Standing rows with theraband</li> <li>Biceps and supine triceps PREs with light weight</li> <li>Treadmill: progressive walking program</li> </ul>
~weeks 7-8	
	Goals: AAROM abduction to 90 degrees; normal rotator cuff strength <b>Exercises</b> Continue previous exercises as appropriate with increased resistance as tolerated AAROM
	- Flexion and abduction to 90 degrees (supine wand)
	- ER as tolerated
	<ul> <li>IR as tolerated (wand behind back)</li> <li>Prone scapular stabilization/strengthening</li> <li>Body blade and rhythmic stabilization</li> <li>Elliptical trainer with LEs only</li> </ul>
FOLLOW-UP:	Ortho: ~2 weeks and 4-6 weeks post-op Supervised rehab: 2-3x per week
CRITERIA FOR PROGRESSION:	ROM: no significant pain within the ROM limits

PHASE II: Generally 9-12 Weeks Post-Op			
GOALS:	<ol> <li>ROM: full shoulder flexion and internal rotation; ~90% full ER</li> <li>Minimize pain and swelling</li> <li>Pain free ADLs</li> </ol>		
PRECAUTIONS:	NO repetitive overhead shoulder use		
	<b>NO</b> regular pushups, heavy lifting, or other sports participation		
CRYOTHERAPY	Cold with compression/elevation (e.g CryoCuff, ice with compression wrap)		
REHABILITATION:	Frequent use of CryoCuff and/or ice with extremity elevated		
	Continue Phase I exercises as needed		
	Progress the exercises and increase intensity gradually when patient is ready.		
	DO NOT increase if shoulder pain and/or stiffness remains from prior exercise session		

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PHASE III: Generally 3-6 Months Post-op			
GOALS:	<ol> <li>Pushups at own pace without pain</li> <li>90% internal/external rotation strength return</li> </ol>		
PRECAUTIONS:	NO participation in contact/collision sports or military schools until 12 months postop		
REHABILITATION:	Continue Phase II exercises as needed Progress to the following exercises and increase intensity gradually when patient is ready.		
Months 3-4	Goals: run 2 miles at easy pace, 30 chair push-ups <b>Exercises</b> Continue previous exercises as appropriate Push-up progression – table to chair Ball toss overhead Fitter on hands Weight training with light weight		
Months 4-6	Goals: resume all activities; pass APFT at 12 months post-op <b>Exercises</b>		

	Continue previous exercises as appropriate			
	Push-ups, regular and variations			
	Sit-ups			
	Swimming			
	Running progression			
	TRX, battling ropes, C2 rowing ergometer, etc			
	Quadruped activities (bear crawls, ladder drills)			
	Progressive weight training program			
	Transition to home/gym program			
FOLLOW-UP:	Ortho: ~3-4 months post-op			
	Supervised rehab: 2-3x per week			
MISCELLANEOUS	After 6 months postop: Exercises in Phase III are continued, gradually increasing intensity			
	and duration as tolerated			
	It is recommended to wait until 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.			

# **APPENDIX: GENERAL SHOULDER PROGRESSIONS**

#### \*Note to clinician\*

There are many potentially good neuromuscular/functional training exercises that can assist a post-op shoulder during rehabilitation. For all levels, these exercises should be pain free. Rather than pick a few favorite ones for a protocol, the strategy is to provide guidelines and examples of several that may be useful. The clinician shoulder stay within the general guidelines to design an individualized, effective program for his/her patient.

## Primary guidelines for beginning level neuromuscular/functional training exercises:

Light resistance, shoulder ROM not to exceed 90 deg of shoulder elevation or 20 deg ER, all weight-bearing exercises should be in the quadruped position with both UEs in contact with a stable surface.

## Primary guidelines for intermediate level neuromuscular/functional training exercises:

Should begin only after completing several weeks of beginning level exercises. Light to moderate resistance, shoulder ROM shoulder generally not exceed 120 deg, or 40 deg ER. For single arm movements, avoid the full prone push-up position for weight-bearing exercises.

#### Primary guidelines for advanced level neuromuscular/functional training exercises:

Should begin only after completing a month or two of intermediate level exercises. Moderate resistance, full ROM – but generally avoiding the 90 deg abducted/90 deg externally rotated position.

Exercise Type:	Beginning Level	Intermediate Level	Advanced Level
	~4-5 months post-op	~5-6 months post-op	~6-7 months post-op
Body Blade	Flexion/Extension	FF range to 90°	FF range to 150°
	IR/ER	Scaption to 90°	Scaption to 150°
	Superior/Inferior (arm at	IR/ER through ROM	IR/ER through ROM
	side)	Horiz abd/add at 90°	Diagonal motions

Ball toss	Chest pass (2 handed)	Overhead toss (2 handed)	Overhead diagonal toss (2
	IR toss (arm at side)	Behind back toss	handed)
			Regular throwing toss
Prone stabilization	Weight shifting in sitting, standing, prone on all fours stabilization on stable surface	All fours stabilization on foam/theraball Tripod on stable surface	Tripod stabilization on unstable surface
Supine stabilization	Supine Shoulder	Supine Shoulder Stabilization	Supine Shoulder Stabilization
	Stabilization @ 90°	from 60-120°	(available ROM)
Cuff strengthening	ER/IR (arm at side)	ER/IR (30-45° shid scaption)	ER/IR- (45-90° shld scaption)
	FF/Scaption to 60-90°	FF/Scaption to 90-120°	gradually moving into abd
	(thumb up)	(thumb up)	PNF patterns
Scapular	Ceiling "punches"	"Pushouts" (in standing)	Pushup plus
strengthening	Rows	Rows (inferior/superior)	
Pushups	none	Wall pushups – progressing to inclined pushups	Knee pushups – progressing to modified regular pushups
Misc. activities	Basketball: dribbling, chest and bounce pass Golf: putting Volleyball: bumping Pool: jogging, treading Wall ball drawing	Basketball: shooting within the key only Golf: chipping, short irons Volleyball: setting Pool: no overhead strokes Tossing Frisbee Catching drills: below 90°	Basketball: noncontact drills only Golf: gradual return Vball: gradual return ~6 mo Pool: gradual return Forehand, backhand racquet sports (no overhead)

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