These guidelines were created as a framework for the post-operative rehabilitation program. They DO NOT substitute for any specific restrictions or requirements that are determined through the necessary shared decision-making and collaboration between the operating surgeon and treating rehabilitation team.

Shoulder Instability- Anterior Surgical Procedure	Rehab Pro Aaron Van	itocol idenbos, MD	\$c	INLA Orthopaedia & Sports Medi	
PHASE 1: Generally 0-6 Weeks Post	_				
GOALS:	NOTE: Initial PT eval 1-3 days after surgery  1) Control pain and swelling  2) Protect the surgical repair  3) Achieve UE stages of ROM goals (DO NOT exceed)  4) Initiate scapular control and motion  5) Educate patient about post-operative precautions  • Monitor patient's use of arm for ADLs and school/work activities that may cause increased pain  • Hypersensitivity in axillary nerve distribution is common  • Educate about environmental/fall risks while wearing sling				
PRECAUTIONS:		time for 4 weeks, th			
	Week	Forward Flexion	ER/Scaption	IR/Scaption	ABD
	Week 1-2	< 90°	15° - 20° @ 30°	45° @ 0°	30°
	Week 3-4	< 90°	30° @ 40°	60° @ 0°	60° - 80°
	Week 5-6	< 90° (120° with increasing hypomobility)	45° @ 50°	45° @ 0°	≤ 90°
	***NOTE: If posterior surgical procedures performed, refer to included addendum for Phases 1-3***				
WOUND:	<ul> <li>- Post-op dressing removed at PT eval</li> <li>- Shower at post-op day #3</li> <li>- Submerge in water <u>after</u> wound is fully healed</li> <li>- Suture removal @ 7-14 days post-op by Ortho</li> </ul>				
MODALITIES:	• C	apy ourly for 15 minutes estored from nerve b ontinue use until acu nce controlled, use 3 blerated	olock ute inflammation	n is controlled	

	<ul> <li>Soft tissue mobilization and other integrative medicine techniques</li> <li>Soft tissues/trigger point work to the kinetic chain (i.e. cervical spine, scapular, and forearm)</li> </ul>
REHABILITATION:	- Frequent use of cryotherapy and/or ice - Begin scar massage after incision site has healed and scar is formed - Consider dry needling with avoidance of incision sites (discuss with Ortho) - Consider blood flow restriction (BFR) on <u>uninvolved</u> arm or LE for physiological benefits at 1-2 weeks from surgery - As tolerated, progress rehabilitation exercises as wound healing occurs and the inflammatory response decreases
~ Weeks 1-3	- ROM exercises:  Shoulder PROM/AAROM within above ROM guidelines in non-impingement position (i.e. hammer grip)  Scapular mobilizations  Modified pendulums in sling; progress to full pendulums after 3-5 days  Strengthening:  Hand squeezing exercises  Elbow/wrist AROM and grip strengthening with shoulder in neutral position at side  Gentle submaximal ("2-finger") shoulder isometrics  BFR (elbow FLEX/EXT) on uninvolved arm or LE  Cardiovascular training:  Recumbent bike while wearing sling
" Weeks 4-6	<ul> <li>No running or high-impact activity for aerobic training</li> <li>UE strength training: BFR (elbow FLEX/EXT)</li> <li>Opposite extremity progressive resistance exercises (PREs)</li> <li>LE progressive resistance training</li> <li>Cardiovascular training: continue recumbent bike</li> </ul>
FOLLOW-UP:	- Supervised rehab: 1-2x per week - PT re-eval: ~10-14 days - Ortho re-eval: ~2 weeks and ~6 weeks
CRITERIA FOR PROGRESSION:	<ul> <li>- Minimal pain 6 weeks from surgery</li> <li>- Pain-free ROM:</li> <li>• FLEX 90°</li> <li>• ER: 45° in scaption</li> <li>• ABD: 90°</li> </ul>

PHASE 2: Generally 7-12 Weeks Po	ost-Op			
GOALS:	1) D/C sling			
	2) Achieve staged ROM goals			
	ER at 45° ABD			
	Week Forward Flexion ER IR			
	By week 12 160° or 60°/90° ABD or Full at 90° or			
	symmetric symmetric symmetric			
	3) Minimize shoulder pain			
	4) Begin to increase strength and endurance			
	5) Increase function	onal activities		
PRECAUTIONS:	- <b>DO NOT</b> perform	n stretching significa	ntly beyond staged	ROM goals during

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	this phase	
	- NO push-ups, bench press, pec flys, throwing, or overhead activities	
	- NO running or high-impact activity for aerobic training	
REHABILITATION:	- ROM exercises	
	- Trunk stabilization (NWB)	
	- Scapular strengthening emphasizing scapular retractors and upward	
	rotators	
	- Shoulder strength and endurance progression	
	<ul> <li>Continue base strengthening/isometrics as needed</li> </ul>	
	• PREs	
	Increase functional activities	
	- Modalities PRN	
	- Cardiovascular training: continue recumbent bike; progress to elliptical	
	(no push/pull with surgical arm) and/or treadmill walking	
	- Adjunct treatments to consider: BFR on involved arm for AROM and	
	isometric activities, dry needling, cervicothoracic manual therapy, aquatic	
	walking with water at chest level or below (no UE movement or	
	resistance; no swimming)	
FOLLOW-UP:	- Supervised rehab: 2-3x per week	
	- PT re-eval: ~10-14 days	
	- Ortho re-eval: ~12 weeks post-op	
CRITERIA FOR PROGRESSION:	- Pain-free ROM within stated goals	
	- Achieve ROM goals to normalize AROM/PROM	
	- Normal/near-normal scapular stabilization and coordination	

PHASE 3: Generally 3-4 Mor	iths Post-Op
GOALS:	1) Normalize AROM/PROM
	2) Normalize strength, endurance, neuromuscular control, and power
	3) Gradual increase of stress to capsulo-labral tissues
	4) Return to sport-specific training/practice
	5) Perform functional and kinesiological assessment (i.e. FMS)
	6) Perform initial functional testing (i.e. Closed Kinetic Chain Upper
	Extremity Stability Test [CKCUEST] and Upper Quarter Y-Balance Test)
PRECAUTIONS:	- No independent or unsupervised overhead, dynamic, resisted, or
	repetitive activities
	- If ROM is severely limited, consideration for surgically assisted release
	should be addressed at this time
REHABILITATION:	- Normalize ROM
	- Pain management
	- Trunk stabilization (progress to FWB)
	- Scapular strengthening emphasizing scapula control in overhead motions
	- Shoulder strengthening: continue PREs
	- Begin push-up and pull-up progression; progress as symptoms allow
	- Cardiovascular training: running progression initiated with pain-free
	shoulder motion
	<ul> <li>Adjunct treatments to consider: dry needling, cervicothoracic</li> </ul>
	manual therapy, and A/P GH joint mobilizations as indicated (not
	P/A)
FOLLOW-UP:	- Supervised rehab: 2-3x per week
	- PT re-eval: 1-3 weeks
	- Ortho re-eval: after completion of Phase 3 goals

TESTING:	- Normalized functional assessment
	- Achieve passing score for push-ups
	- Consider baseline 90% on Upper Quarter Y-Balance Test and/or 20+ reps
	on CKCUEST

GOALS:	1) Meet occupational requirements at 4-6 months
	2) Initiate/continue return to weight training program
	3) Begin sport-specific training; include initiation of throwing program for
	overhead athletes
PRECAUTIONS:	- Avoid the following:
	Wide grip pull downs
	Behind the neck shoulder press
	Wide grip bench press
	Standing lateral deltoid raises
	Overhead triceps press
	- Clearance based upon strength, neuromuscular control/coordination, and
	functional ROM
REHABILITATION:	- Advanced specific, functional, and individualized training to achieve Phase 4 goals (i.e. lift, pull, carry, and climb in unloaded/loaded conditions)
	<ul> <li>Modifications to PREs and base strengthening (manual resistance)</li> </ul>
	as needed
	Stretching
	Soft tissue work
	<ul> <li>Interval throwing program (overhead athletes)</li> </ul>
	<ul> <li>Return to weight room and strength training</li> </ul>
	o Full, pain-free ROM
	o Normal strength in RC and scapular muscles
	o 2-3x per week
	o High repetitions
	o Not to "muscle failure"
	o Gradual increase of stress to capsulo-labral tissues
FOLLOW-UP:	- Supervised rehab: 2-3x per week
	- PT re-eval: 2-4 weeks
	- Ortho re-eval: Upon completion of Phase 4 goals
TESTING:	- Repeat CKCUEST and/or Upper Quarter Y-Balance Test with > 90% Limb
	Symmetry Index before returning to unrestricted sport activity
MISCELLANEOUS:	- Progress activities for return to sport/collision sports or aggressive
	military training based on the patient's functional performance and
	endurance. This time period will be directed by the Ortho Surgeon and the
	Physical Therapist. This may require between 6-12 months before cleared
	without restrictions.

## Addendum:

Addendam.					
Shoulder Instability- Posterior Surgical Procedure					
PHASE 1: Generally 0-6 Weeks Pos	t-Op				
GOALS:  PRECAUTIONS:	NOTE: Initial PT eval 1-3 days after surgery  1) Control pain and swelling  2) Protect the surgical repair  3) Achieve UE stages of ROM goals (DO NOT exceed)  4) Initiate scapular control and motion  5) Educate patient about post-operative precautions  • Monitor patient's use of arm for ADLs and school/work activities that may cause increased pain  • Hypersensitivity in axillary nerve distribution is common  • Educate about environmental/fall risks while wearing sling  - Sling full-time for 4 weeks, then wean by 6 weeks post-surgery				
	Week	Forward Flexion	ER/Scaption	IR/Scaption	ABD
	Week 1-2	< 90°	15° - 20° @ 30°	0°	30°
	Week 3-4 Week 5-6	< 90° < 90° (120° with increasing hypomobility)	30° @ 40° 45° @ 50°	0°	60° - 80° ≤ 90°
WOUND:	- Post-op dressing removed at PT eval - Shower at post-op day #3 - Submerge in water after wound is fully healed - Suture removal @ 7-14 days post-op by Ortho				
MODALITIES:	<ul> <li>Cryotherapy</li> <li>Hourly for 15 minutes for the first 24 hours <u>after</u> sensation is restored from nerve block</li> <li>Continue use until acute inflammation is controlled</li> <li>Once controlled, use 3x per day for 15 minutes or longer as tolerated</li> <li>Soft tissue mobilization and other integrative medicine techniques</li> <li>Soft tissue/trigger point work to the kinetic chain (i.e. cervical</li> </ul>				
REHABILITATION:	spine, scapular, and forearm)  - Frequent use of cryotherapy and/or ice  - Begin scar massage after incision has healed and scar is formed  - Consider dry needling with avoidance of incision sites (discuss with Ortho)  - Consider blood flow restriction (BFR) on <u>uninvolved</u> arm or LE for physiological benefits at 1-2 weeks from surgery  - As tolerated, progress rehabilitation exercises as wound healing occurs and the inflammatory response decreases				

" Weeks 1-3	- ROM exercises:		
	Shoulder PROM/AAROM within above ROM guidelines in non-		
	impingement position (i.e. hammer grip)		
	Scapular mobilizations		
	<ul> <li>Modified pendulums in sling; progress to full pendulums after 3-5</li> </ul>		
	days		
	- Strengthening:		
	Hand squeezing exercises		
	<ul> <li>Elbow/wrist AROM and grip strengthening with shoulder in neutral position at side</li> </ul>		
	Gentle submaximal ("2-finger") shoulder isometrics		
	, , ,		
	- BFR (elbow FLEX/EXT) on <u>uninvolved</u> arm or LE - Cardiovascular training:		
	Recumbent bike while wearing sling		
	No running or high-impact activity for aerobic training		
~ Weeks 4-6	- UE strength training: BFR (elbow FLEX/EXT)		
Weeks 10	- Opposite extremity progressive resistance exercises (PREs)		
	- LE progressive resistance training		
	- Cardiovascular training: continue recumbent bike		
FOLLOW-UP:	- Supervised rehab: 1-2x per week		
	- PT re-eval: ~10-14 days		
	- Ortho re-eval: ~2 weeks and ~6 weeks		
CRITERIA FOR PROGRESSION:	- Minimal pain 6 weeks from surgery		
	- Pain-free ROM:		
	• FLEX 90°		
	ER: 45° in scaption		
	• ABD: 90°		

PHASE 2: Generally 7-12 Weeks F	PHASE 2: Generally 7-12 Weeks Post-Op				
GOALS:	1) D/C sling 2) Achieve staged ROM goals • ER at 45° ABD				
	Week Forward ER IR				
	Week 7-9	135°	45°/90° ABD	30°-45°/45° ABD	
	By 12 weeks 160° or 60°/90° ABD or 60°/90° ABD or symmetric symmetric symmetric				
	3) Minimize shoulder pain 4) Begin to increase strength and endurance				
	5) Increase functional activities				
PRECAUTIONS:	- <b>DO NOT</b> perform stretching significantly beyond staged ROM goals during				
	this phase				
	- NO push-ups, bench press, pec flys, throwing, or overhead activities				
	- NO running or high-impact activity for aerobic training				
REHABILITATION:	- ROM exercises				
	- Trunk stabilization (NWB)				
	- Scapular streng	thening emphasizi	ing scapular retractor	s and upward	
	rotators				

	- Shoulder strength and endurance progression		
	Continue base strengthening/isometrics as needed		
	• PREs		
	Increase functional activities		
	- Modalities PRN		
	- Cardiovascular training: continue recumbent bike; progress to elliptical		
	(no push/pull with surgical arm) and/or treadmill walking		
	- Adjunct treatments to consider: BFR on <u>involved</u> arm for AROM and		
	isometric activities, dry needling, cervicothoracic manual therapy, aquatic		
	walking with water at chest level or below (no UE movement or resistance;		
	no swimming)		
FOLLOW-UP:	- Supervised rehab: 2-3x per week		
	- PT re-eval: 10-14 days		
	- Ortho re-eval: ~12 weeks post-op		
CRITERIA FOR PROGRESSION:	- Pain-free ROM within stated goals		
	- Achieve ROM goals to normalize AROM/PROM		
	- Normal/near-normal scapular stabilization and coordination		

PHASE 3: Generally 3-6 Months Post-Op		
SAME AS ABOVE FOR ANTERIOR	***NOTE: With the following changes for REHABILITATION***	
SURGICAL PROCEDURES:	- P/A GH joint mobilizations only as indicated (not A/P)	
	- Initiate push-up progression at 16 weeks	