



Tri-Service Post-Operative Rehabilitation Guidelines

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Bicep Tenodesis Rehabilitation

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.

PHASE 1: Generally 0-4 Weeks Post-Op	
GOALS:	<ol style="list-style-type: none"> 1) Protect the surgical repair 2) Normal shoulder/elbow AROM 3) Minimize pain and swelling
PRECAUTIONS:	<ul style="list-style-type: none"> - NO resistance exercises for shoulder ABD or FLEX x 4 weeks - NO active elbow FLEX or forearm SUP > 5 lbs
SLING/IMMOBILIZER:	<ul style="list-style-type: none"> - Sling/immobilizer must be worn except during rehabilitation exercises x 2 weeks - Wean from sling at 2-4 weeks
WOUND CARE:	<ul style="list-style-type: none"> - Post-op dressing removed at PT eval - Shower at post-op day #3 - Submerge in water <u>after</u> wound is fully healed - Suture removal @ 7-14 days post-op by Ortho
MODALITIES:	<ul style="list-style-type: none"> - Cryotherapy <ul style="list-style-type: none"> • Hourly for 15 minutes for the first 24 hours <u>after</u> sensation is restored from nerve block • Continue use until acute inflammation is controlled • Once controlled, use 3x per day for 15 minutes or longer as tolerated - Soft tissue mobilization and other integrative medicine techniques <ul style="list-style-type: none"> • Soft tissue/trigger point work to the kinetic chain (i.e. cervical spine, scapular, and forearm)
REHABILITATION:	<ul style="list-style-type: none"> - Frequent use of cryotherapy and/or ice with compression/elevation - As tolerated, progress rehabilitation exercises as wound healing occurs and the inflammatory response decreases
	<ul style="list-style-type: none"> - ROM exercises: <ul style="list-style-type: none"> • Shoulder PROM/AAROM within above ROM guidelines in non-impingement position (i.e. hammer grip) • Scapular mobilizations • Modified pendulums in sling; full pendulums after 3-5 days

	<ul style="list-style-type: none"> - Strengthening: <ul style="list-style-type: none"> • Hand squeezing exercises • Elbow/wrist AROM & grip strengthening with shoulder in neutral position at side • Gentle sub-maximal (“2-finger”) shoulder isometrics • Blood Flow Restriction (BFR) for elbow FLEX/EXT on <u>uninvolved</u> arm or LE for physiological benefits at 1-2 weeks from surgery - Cardiovascular training: <ul style="list-style-type: none"> • Recumbent bike <u>while wearing sling</u> • NO running or high-impact activity for aerobic training
FOLLOW-UP:	<ul style="list-style-type: none"> - Supervised rehab: 2x per week - PT re-eval: ~10-14 days - Ortho re-eval: ~2 weeks
CRITERIA FOR PROGRESSION:	<ul style="list-style-type: none"> - Minimal pain 4 weeks from surgery

PHASE 2: Generally 4-12 Weeks Post-Op

GOALS:	<ol style="list-style-type: none"> 1) Initiate strengthening at 6 weeks 2) Unrestricted activity by 3 months
PRECAUTIONS:	<ul style="list-style-type: none"> - NO resisted elbow FLEX > 10 lbs during weeks 4-8 - NO resisted elbow FLEX > 15 lbs during weeks 8-12 - Avoid impingement positions, moderate or higher level exertional activities with involved arm, and high impact aerobic training
SLING/IMMOBILIZER:	<ul style="list-style-type: none"> - D/C sling at 4 weeks post-op
REHABILITATION:	<ul style="list-style-type: none"> - ROM exercises - Trunk stabilization (NWB) - Scapular strengthening emphasizing scapula retraction and upward rotators - Shoulder strength and endurance progression <ul style="list-style-type: none"> • Continue base strengthening/isometrics as needed • Rotator cuff progressive resistance exercises (PREs) within elbow FLEX precautions • 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: dry needling, manual therapy to GH joint and cervicothoracic regions, aquatic walking with water at chest

	level or below (no UE movement/resistance and no swimming)
FOLLOW-UP:	<ul style="list-style-type: none"> - Supervised rehab: 2-3x per week - PT re-eval: every 2 weeks - Ortho re-eval: ~12 weeks

PHASE 3: Generally 3-6 Months Post-Op

GOALS:	<ol style="list-style-type: none"> 1) Meet occupational requirements at 4-6 months 2) Pass Service fitness test at 6 months
PRECAUTIONS:	<ul style="list-style-type: none"> - Initiate high reps/low weight bicep curls - Avoid preacher curls or using equipment that places arm against a resistance surface until post-op rehabilitation and return to duty is complete
REHABILITATION:	<ul style="list-style-type: none"> - Advanced specific, functional, and individualized training to achieve Phase 4 goals (i.e. lift, pull, carry, and climb in unloaded/loaded conditions)
FOLLOW-UP:	<ul style="list-style-type: none"> - Supervised rehab: 1-2x per week - PT re-eval: monthly - Ortho re-eval: ~6 months post-op
MISCELLANEOUS:	<ul style="list-style-type: none"> - Progress activities for return to sport/collision sports or aggressive military training (i.e. airborne school) 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 4-9 months before cleared without restrictions.

References:

- Hester WA, O'Brien MJ, Heard WMR, Savoie FH. Current concepts in the evaluation and management of type II superior labral lesions of the shoulder. *Open Orthop J.* 2018; 12: 331-341.
- Sheps DM, Silveira A, Beaupre L, Styles-Tripp F, et al. Early active motion versus sling immobilization after arthroscopic rotator cuff repair: a randomized control trial. *Arthroscopy: The Journal of Arthroscopic and Related Surgery.* 2019; 35(3): 749-760.