

Latissimus Dorsi Tendon Transfer – Rehab Protocol

The purpose of this protocol is to work collaboratively with the clinician and provide a guideline for the postoperative rehabilitation course of a patient that has undergone a latissimus dorsi tendon transfer. This protocol is by no means intended to be a substitute for one's clinical decision making regarding the progression of a patient's post-operative course based on their physical exam, individual progress, and/or the presence of post-operative complications. If a clinician requires assistance in the progression of a post-operative patient they should not hesitate to consult with the referring surgeon.

Please Note: The given time frames are an approximate guide for progression.

NO UPPER BODY ERGOMETER AT ANY TIME

Phase I: First 4 weeks of therapy (4-6 weeks post-surgery)

- Wean out of abduction/ER sling at 7-8 weeks post-op. Most patients will be out of sling by start of therapy
- Full elbow/wrist/hand AROM immediately
- PROM: Gently increase PROM of shoulder and elbow to tolerance, and adhering to the following precautions:
 - No PROM: internal rotation, adduction, extension of the shoulder; No forced forward flexion of the shoulder
 - PROM allowed for forward flexion, forward elevation in scaption, external rotation from neutral as tolerated (no stretching)
 - No weight bearing through arm / hand. No lifting >5lbs

GOAL: Gradual PROM of shoulder and elbow with minimal pain. Protect tendon repair.

Phase II: Weeks 6-12 of therapy

- Gradual progression from PROM to AAROM to AROM
 - PROM (no forceful stretching): Forward flexion, abduction, external rotation, extension, adduction- as tolerated; Internal rotation- as tolerated (no IR behind back)
- AAROM/AROM
 - Note: AROM not to be initiated prior to 8 weeks post-operatively
 - Begin in supine and sidelying before progressing to antigravity
 - Forward flexion/elevation: Deltoid lawn chair progression
- Begin scapular stabilization exercises; no shoulder strengthening

Goals: Gentle introduction of AAROM/AROM, protect tendon repair

Phase III: Weeks 12-16 of therapy

- Advance PROM/AROM as tolerated without limitation. Avoid forceful stretching; protect repair
- If pain-free shoulder AROM achieved in all planes, then may stop PT and resume in 4 weeks for strengthening

GOAL: Advance AROM to full range-as tolerated; continue scapular strengthening; no rotator cuff strengthening

Phase IV: Beyond 16 weeks of therapy

- Note: Strengthening not to be initiated prior to 5 months post-operatively
- Strengthening: For all motions- start with isometrics and progress to isotonic; begin in positions with gravity eliminated and progress to antigravity. Utilize deltoid lawn chair progression
- Retraining of the latissimus dorsi to a flexor and external rotator using biofeedback
- May begin work hardening or sports-specific rehab at 5 months post-op if cleared by surgeon
- No return to contact sports prior to 9 months post-operatively

GOAL: Initiate gradual strengthening program, begin to incorporate work hardening or sports specific movements as applicable

*****Expected Recovery Time is approximately 10-12 Months*****

NOTE: If you have any questions or concerns regarding any of the phases or advancements in this protocol, please do not hesitate to contact our office at 781-337-5555.

Petriccioli, D., Bertone, C., & Marchi, G. (2016). Recovery of active external rotation and elevation in young active men with irreparable posterosuperior rotator cuff tear using arthroscopically assisted latissimus dorsi transfer.

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Lee, B, Cho, N and Rhee, Y. Effect of two rehabilitation protocols on range of motion and healing rates after arthroscopic rotator cuff repair: aggressive versus limited early passive exercises. *Arthroscopy: The Journal of Arthroscopic & Related Surgery*. 2012;28(1):34-42.