MAYO CLINIC | Orthopedics and Sports Medicine

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Lower Trapezius Tendon Transfer Rehabilitation Protocol

Phase	Goals	Precautions / Restrictions	Treatment
Weeks 0 – 6	• **1st PT CONSULT by 2 Weeks** ○ FOTO PRO, QuickDASH • Protect surgical site + repair • Decrease pain + inflammation with P.R.I.C.E principles • Minimize muscle atrophy • No Shoulder Range of Motion	• Wear immobilizer with pillow except for hygiene • ***NO SHOULDER RANGE OF MOTION*** • **No lifting** of any object on the operative / involved side • **No lifting** > 5 lbs. or pushing / pulling > 20 lbs. on uninvolved side	• ***No passive or active shoulder range of motion*** • Elbow / Wrist / Hand – Active Assisted ROM to Active ROM with the arm in plane of body • Ice / Cryotherapy – 5 - 7 x day, 40 min each session • Week 2 – 3: Core activation + CV exercise (bike) with the immobilizer on and no handlebars • Ultrasound / Electrical stimulation if available

Weeks 6 – 8	• Maintain integrity of repair
	• Initiate **FE + ER** shoulder ROM
	  ○ NO INTERNAL ROTATION
	• Minimize muscle atrophy
		• May discontinue immobilizer and wean as able over next 1 - 2 weeks
		• NO INTERNAL ROTATION
		• No WB on the involved shoulder
			• Shoulder arm hang exercises
			• Shoulder shrugs + Scapular setting exercises
			• Shoulder Passive Range of Motion in **FE + ER**
			  ○ NO INTERNAL ROTATION or cross body adduction

Weeks 8 – 12	• Emphasize ROM + ADLs w/ the affected arm at the side • Retrain transferred tendon and scapulohumeral rhythm • Focus on external rotation with biofeedback	• NO INTERNAL ROTATION, adduction, or extension stretching • No active reaching w/ affected arm • No lifting, carrying, or weight bearing with operative shoulder. • No pulleys or forced motion	• Slowly advance from Passive → Active assisted → Active ROM in FE and ER ○ Supine → Side lying → Upright as appropriate • Biofeedback for lower trapezius – retraining adduction and ER (progress from isometric to active exercises)

Weeks 12 – 16
(Months 3 – 4)
	• Maintain and enhance optimal AAROM / AROM
	• Regain muscle strength and shoulder stability
	• Scapular setting progressed to Scapular Isometrics
	• If Biceps tenodesis may initiate flexion strengthening
		• No forced stretching in all planes
		  ○ May initiate gentle IR stretch
		• Return to most ADLs with a 10 lb. lifting restriction
		• Initiate light strengthening with bands at **week 14 (NO EARLIER)**
		• **Pool therapy** for ROM Only but **NO SWIMMING**
			• Gentle terminal stretching as indicated in all planes
			• Isometric strengthening of the affected shoulder → Progress to Isotonic as pain allows
			  ○ Supine → Side lying → Upright as appropriate
			  ○ Railing slides, Cane assisted / Towel Scapation
			  ○ Biceps, Triceps, General UE, Core, Hip permitted
			• Initiate Rhythmic stabilization + Scapular control
			• Use pulleys, wall stretch, pool, biofeedback PRN

Weeks 16 – 24
(Months 4 – 6)
	• Restoration of shoulder strength, endurance, and power
	• Optimize retraining and neuromuscular Control
	• Full AROM w/o deltoid hike
		• Introduction of light recreational activities while AVOIDING high effect, heavy lifting, and repetitive activities with 20 lb. restriction
		• Avoid cross body activities (Combined IR + adduction activities)
			• Develop full Active Range of Motion
			• Progress from isotonic exercise to eccentric and resistive exercise per tolerance in all planes, including multiplane exercises as long as:
			  ○ Isometrics are progressing
			  ○ No compensations during exercise performance

Weeks 24 +
(Months 6+)
	• Advance shoulder strengthening and proprioception
	• Maximize retraining and neuromuscular control
	• Initiate higher-level activities and return to sport progression
	• Pool therapy for ROM exercises and progression towards swimming, focusing on breaststroke.
		• Limit strengthening to 3 x per week with appropriate work rest intervals to avoid rotator cuff tendinitis
		• Assess tolerance to activity during, after and at 24 hours after activity
		• No progression to home therapy or advanced sports until:
		  ○ Plateaued AROM w/ appropriate scapulohumeral rhythm
		  ○ 80% strength vs. uninvolved side
		  ○ > 50% functional improvement
		  ○ Satisfactory clinical exam by MD
			• Focus on form and control during exercise performance with progression to weights
			  ○ Low weights and high reps
			  ○ Focus on proximal muscle control and endurance
			• Proprioceptive training including Closed Chain Activities
			• Continue with Anaerobic + Aerobic interval training
			• Continue with core and hip stability per tolerance
			• Plyometric activities progressing from simple to complex, less load to more load
			• Week **24** – QuickDASH, FOTO, HHD / Isokinetics
			• 1 year follow-up – HHD Testing

This protocol is not meant to be prescriptive but a recommendation to guide the rehabilitation process. Each patient's progress may vary based on specifics of their injury and procedure.