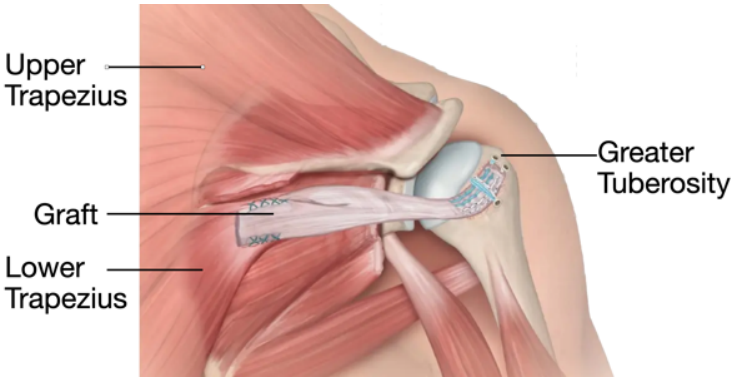
LOWER TRAPEZIUS TENDON TRANSFER REHABILITATION GUIDELINES

Overview

Lower Trapezius Tendon Transfer Surgery is a procedure to help improve shoulder function, especially for individuals with irreparable rotator cuff tears. The surgery involves moving a portion of the lower trapezius muscle and reattaching it to the upper arm bone (humerus) to restore movement and stability. A graft is used to give the muscle the length to reach the greater tuberosity.



Rehabilitation

Recovery from this complex salvage surgery takes 12–18 months, with early phases focused on protecting the graft and retraining movement, followed by later phases aimed at building strength and endurance for optimal function. See Post operation Milestones below:

Milestone	Goals
3 Months Post Surgery	• Most patients can activate the lower trapezius to assist shoulder flexion and abduction. • Range of movement (ROM): typically >90° flexion/abduction, but external rotation (ER) can remain limited at about 50°. • Rehab focus: strengthen lower trapezius activation and maintain proper scapular rhythm, avoid compensations such as shoulder hitching or excessive protraction during elevation.
6 Months Post-Surgery	• Most patients achieve good overall ROM with correct lower trapezius and scapular activation, but strength remains limited. • External rotation and flexion strength are slowest to return, often taking ~9 months to regain strong power. • Many can resume moderate activities (e.g., gardening) with pacing and rest days to manage occasional pain flare-ups.

This is salvage surgery when it is not possible to repair the tendons directly. It does not restore a fully normal shoulder.

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Rehabilitation Guideline

Phase 1: Protection (0–6 weeks)

Goals	Minimise pain and protect the repair
Sling Use	Wear **24/7** except for elbow, wrist, and hand exercises and hygiene. Discard after 6 weeks
Restrictions	No shoulder movement, No weight-bearing, No lifting or Loading
Education & Tips	Maintain good posture, Support shoulder while sleeping, Manage pain with ice and medications.
Exercises	**Neck Range of Movement:** Active neck flexion, rotation, side flexion **Elbow Range of movement:** Active elbow Flexion, Extension, Supination, Pronation **Wrist Range of Movement:** Active Wrist Flexion, Extension, Ulnar Deviation, Radial Deviation **Hand Exercises:** Grip Squeezes

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Phase 2: Regaining Movement (6–12 weeks)

Goals	Restore pain-free range of movement, re-establish proprioception, and initiate motor pattern training.
Restrictions	No forced shoulder movements (especially internal rotation/adduction), no lifting, carrying or loading.
Education + Tips	Concentrate on activation lower/mid trapezius as you work through Elevation movements, it may help by scapula setting prior to completing the movement or having sensory feedback on scapula such as wall, floor, gymball.
Exercises	**Shoulder Range of Movement Passive progressing to Active-Assisted:** Shoulder Flexion, Abduction, External Rotation ** These movements can be completed in supine, progressed to standing, progressed to whole chain movement I.e. step forwards into passive shoulder flexion.* ** Avoid Internal rotation at this stage* **Active scapula movements against floor, bed, wall, or exercise ball:** Scapula elevation, depression, retraction
Progression	**From week 8** begin gentle active range of movement as tolerated Start short lever progress to long lever ** These movements can be completed in supine, progressed to standing with scapula in contact with surface such as gym ball or wall, progressed to whole chain movement I.e. step forwards into passive shoulder flexion.*

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Phase 3: Movement Pattern & Strength (12 weeks–6 months)

Goals	Maintain ROM, regain strength and stability, refine motor control and proprioception.
Restrictions	No heavy lifting, forced stretching in all planes, or sports activities
Education + Tips	When integrating strengthening its important to start low load and high reps aiming to improve strength endurance.
Exercises	**Full Active Shoulder Range of Movement** Active Shoulder Flexion, Abduction, External Rotation, Internal rotation. ** Focus on coordinated scapulothoracic rhythm during elevation* **This can be facilitated by having posterior scapula in contact with a surface such as gym ball or wall* **Progress to whole kinetic chain movement I.e. squat into shoulder flexion, lunge into shoulder abduction.* **Light Load Posterior Shoulder Strengthening** Shoulder External Rotation at Inner range, Mid-range, Outer range Short Lever + Long Lever Low Row Standing or Prone T, Y, W holds if tolerable ** Start with isometric strengthening and progress through to isotonic strengthening, always start low load and monitor response* **Light closed-chain proprioception** Weight bearing against unstable surface e.g. gym ball against wall Dynamic UL Weight bearing e.g. Shoulder taps against wall, Bird dog, 4-point kneeling walkouts ** Start low load bearing (Double Arm) and progress to increased load bearing positions (Single arm)*
Progression	Introduce light External load through all planes of shoulder movement Include whole kinetic chain strengthening Progress closed chain strengthening – table press up, kneeling press up

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Phase 4: The New Normal (6 months +)

Goals	Return to relative unrestricted activity with graduated progression.
Restrictions	Avoid activity beyond patient capacity; gradual reintroduction is critical.
Education + Tips	Remember to understand your own limitations and activity modification conversations may be needed.
Exercises	Continue Active Range of Movement Exercises Continue progressive Shoulder strengthening incorporating external load and whole kinetic chain progress to more complex closed/open-chain proprioceptive training.
Progression	Continue upper limb conditioning and functional strengthening tailored to patient needs.

Clinical Considerations

Timelines are guidelines and may vary depending individual healing. Progression should be based on patient tolerance, clinical presentation, and surgeon clearance.

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