

LATERAL ELBOW TENDON REPAIR POST-OPERATIVE GUIDELINES

The following Lateral Elbow Tendon Repair Post-Operative Guidelines were developed by HSS Rehabilitation clinicians and are categorized into four phases with the ultimate goal of returning to full participation in all daily, occupational and sports related activities. Progression is both criteria-based and patient specific due to the unique constraints of each individual. The first phase concentrates on post-operative tissue recovery and healing while the second phase initiates the return of joint motion. The third and fourth phases are focused on strength of the entire upper extremity kinetic chain, closed-chain activities, and plyometrics in preparation for return to high level and sport activities. Cardiovascular endurance, hip and trunk stability, and lower extremity strength should always be addressed throughout recovery. Phases and time frames are designed to give the clinician a general sense of progression but do not replace clinical judgement.

FOLLOW SURGEON MODIFICATIONS AS PRESCRIBED.

LATERAL ELBOW TENDON REPAIR POST-OPERATIVE GUIDELINES

Phase 1: Weeks 0-2

PRECAUTIONS

- Elbow in sling for comfort for up to two weeks
- Wrist immobilized by orthosis or brace per surgeon preference
- No passive range of motion (PROM) by clinician

ASSESSMENT

- Quick Disabilities of Arm, Shoulder and Hand (Quick DASH)
- Numeric Pain Rating Scale (NPRS)
- Wound status
- Edema of hand, including fingers
- Cervical mobility
- Active range of motion (AROM) of fingers
- AROM of the shoulder
- Scapular assessment
- Postural assessment
- Functional abilities

TREATMENT RECOMMENDATIONS

- Gentle PROM/active-assisted range of motion (AAROM) of elbow/forearm/wrist/hand to be performed by patient
- Scapular isometrics
- Light compression to reduce edema
- Cryotherapy

CRITERIA FOR ADVANCEMENT

- 80% full elbow/wrist/hand AROM

EMPHASIZE

- Protect surgical repair
- Reduce irritation
- Control edema and pain
- Familiarize with post-operative plan of care

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Phase 2: Weeks 3-4

PRECAUTIONS

- No repetitive or maximal force gripping
- No lifting
- No progressive resistive exercises

ASSESSMENT

- Quick DASH
- NPRS
- Scar mobility
- Edema of hand, including fingers
- Cervical mobility
- AROM of fingers, wrist, forearm, elbow, and shoulder
- Scapular assessment
- Postural assessment
- Functional abilities

TREATMENT RECOMMENDATIONS

- Scar mobilization when completely healed
- Gentle PROM and stretching of wrist extensors with elbow at 90 degrees of flexion
- AROM of elbow/wrist/hand
- Begin submaximal isometrics of wrist extensors, forearm pronator and supinator at 3 weeks with elbow at 90 degrees of flexion and forearm in neutral
- Cryotherapy

CRITERIA FOR ADVANCEMENT

- No pain at rest
- Full pain-free AROM elbow/wrist/hand
- Well controlled edema

EMPHASIZE

- Functional activities
- Reduction of tissue irritability
- Control edema
- Protect repair

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Phase 3: Weeks 5-8

PRECAUTIONS

- Avoid any painful exercises and activities
- Avoid closed chain exercises

ASSESSMENT

- Quick DASH
- NPRS
- Grip strength with hand dynamometer
- Strength: manual muscle test (MMT) of rotator cuff, scapular stabilizers, elbow/wrist/hand
- Kinetic chain assessment
- Functional abilities

TREATMENT RECOMMENDATIONS

- PROM and stretching of wrist extensors
- AROM of elbow/wrist/hand
- Isometrics of wrist extensors, forearm pronator and supinator with elbow in extension
- Progressive resistance exercises of elbow flexion/extension, supination/pronation, wrist flexion, ulnar/radial deviation; start with elbow in 90 degrees of flexion and progress to elbow in extension
- Begin eccentric wrist extension
- Rotator cuff and scapular stabilization exercises with light resistance
- Grip strengthening
- Proprioceptive neuromuscular facilitation (PNF) patterns with monitoring for compensatory movements
- Exercise blade or rhythmic stabilization exercises
- Cryotherapy
- May begin upper body ergometer (UBE)

CRITERIA FOR DISCHARGE

- Pain-free at rest and during exercise
- Pain-free gripping
- All upper extremity manual muscle testing (MMT) graded 5/5

EMPHASIZE

- Upper extremity strength
- Upper extremity endurance
- Functional activities
- Wrist stabilization exercises

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Phase 4: Weeks 9+

PRECAUTIONS

- Avoid painful plyometrics
- Heavy resistance as tolerated

ASSESSMENT

- Quick DASH
- NPRS
- Grip strength
- Strength: MMT of rotator cuff, scapular stabilizers, elbow/wrist/hand
- Kinetic chain assessment
- Functional abilities

TREATMENT RECOMMENDATIONS

- Soft tissue mobility as needed
- Scapular stabilization strengthening
- Advance isotonic exercise for shoulder and elbow
- Initiate shoulder external rotation (ER)/internal rotation (IR) strength at 90 degrees of shoulder abduction
- Advance wrist/forearm strengthening
- Continue PNF and wrist extensor eccentric exercise
- Advance closed-chain activities
- UBE
- Endurance progression
 - Double-hand overhead wall taps
 - Single-arm shoulder 90/90 wall taps
 - Single-arm 12 o'clock to 3 o'clock wall taps
 - Exercise blade in multiple positions
- Initiate plyometrics (advance over a 4-week period)
 - Double-hand chest pass
 - Double-hand overhead soccer pass
 - Double-hand chops
 - Single-hand IR at 0 degrees abduction
 - Eccentric catch
 - Single-hand shoulder 90/90 IR

- May initiate tennis-related activities. Begin with bouncing ball on racquet and progress to volleying and ground strokes before serving
- May initiate golf-related activities. Begin with chipping and putting progressing to short irons and long irons before woods and driver
- May initiate a return to throwing sports program

CRITERIA FOR DISCHARGE

- Pain-free progression through interval sports program
- Independent with all arm care exercises

EMPHASIZE

- Initiation of interval sports program
- Return to sports participation

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References

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Created: 12/2021

Revised: 8/2023