

## Rehabilitation Protocol for Medial/Lateral Epicondylalgia

This guideline is designed to support clinicians and patients in managing non-operative treatment for Medial and Lateral Epicondylitis/Epicondylalgia. The protocol is structured around both time-dependent tissue healing and criterion-based patient tolerance. Interventions should be customized to the individual's needs, informed by examination findings and clinical judgment. For any questions, it's advisable to consult the referring physician.

The exercises and interventions suggested in this protocol are not exhaustive. Therapeutic approaches should be adjusted as the patient progresses, based on the clinician's discretion.

For lateral epicondylalgia, the focus is on tendinopathy affecting the tendon, sheath, and muscular junction of the extensor carpi radialis brevis (ECRB) muscle, along with other extensor tendons attached to the lateral epicondyle of the humerus. In medial epicondylalgia, tendinopathy involves the structures of the flexor carpi radialis (FCR) muscle and other flexor tendons at the medial epicondyle of the humerus. The injury mechanism is often attributed to repetitive strain, leading to microscopic and macroscopic tears, and in some cases, potential micro-avulsion fractures.

<p><b>Diagnosis Considerations</b></p>	<ul style="list-style-type: none"> <li>• Pain with repetitive wrist flexion/extension, weak grip strength. Local tenderness.</li> <li>• Pain typically described as dull ache immediately after activity and at rest. Can be sharp and radiate down forearm.</li> <li>• Common Aggravating Factors: shaking hands, baseball, swimming, golf, tennis, bowling, racquetball, football, weightlifting, track and field throwing and repetitive dynamic overload activities.</li> <li>• Throwing in late cocking and acceleration because of increased valgus stress (medial).</li> <li>• Special Tests:             <ul style="list-style-type: none"> <li>◦ Lateral: Resisted isometrics, Cozen's Test, Chair Test, Mill's Test, Maudsley Test, Coffee Cup Test, Resisted Middle Finger Extension Test, Polk's Test (Phase 1)</li> <li>◦ Medial: Reverse Cozen's Test, Polk's Test (Phase 2)</li> </ul> </li> <li>• Functional outcome measures: Patient-rated Tennis Elbow Evaluation (PRTEE), Disabilities of the Arm, Shoulder, and Hand (DASH)</li> </ul>	
<p><b>Differential Diagnosis</b></p>	<ul style="list-style-type: none"> <li>• Radial tunnel syndrome</li> <li>• Posterior interosseus syndrome</li> <li>• Intraarticular abnormalities</li> <li>• Lateral collateral elbow instability</li> <li>• Cervical pathology (C6)</li> <li>• Ulnar nerve entrapment, impingement, or neuritis</li> <li>• Avulsion of apophysis</li> </ul>	<ul style="list-style-type: none"> <li>• Ulnar collateral ligament injury</li> <li>• Extraarticular olecranon exostosis/bursitis</li> <li>• Rotator cuff tendinopathy</li> <li>• Thoracic outlet syndrome</li> <li>• Biceps/Triceps tendinopathy</li> <li>• Loose bodies, chondral involvement</li> <li>• Rheumatic disease</li> </ul>

**PHASE I: IMMEDIATE/ACUTE**  
(WEEKS 0-2 AFTER SURGERY)

<p><b>Rehabilitation Goals</b></p>	<ul style="list-style-type: none"> <li>• Reduce any swelling, minimize pain and immobilization as needed</li> <li>• Patient education               <ul style="list-style-type: none"> <li>◦ Minimize aggravating factors as much as possible, activity modification</li> <li>◦ Initial self-symptom management and joint protection</li> <li>◦ Independent with initial home exercise program</li> </ul> </li> </ul>
<p><b>Interventions</b></p>	<p>During this early acute phase, numerous manual interventions may be utilized to reduce the patient's pain, restriction to movement, and joint mobility:</p> <ul style="list-style-type: none"> <li>• Soft Tissue Mobilization/Instrument-Assisted Soft Tissue Mobilization</li> <li>• Splinting/Taping</li> <li>• Ischemic compression/Bloodflow Restrictive Training</li> <li>• Dry Needling</li> <li>• Nerve mobilization</li> <li>• Joint mobilization/manipulation</li> <li>• Strengthening</li> <li>• Stretching</li> <li>• Modalities</li> </ul>
<p><b>Criteria to Progress</b></p>	<ul style="list-style-type: none"> <li>• Tolerance to full AROM without pain (unloaded)</li> <li>• Independent with initial home exercise program</li> </ul>

**PHASE II: INTERMEDIATE/SUB-ACUTE**  
(WEEKS 2-4 AFTER SURGERY)

<p><b>Rehabilitation Goals</b></p>	<ul style="list-style-type: none"> <li>• Progressive stretching</li> <li>• Progressive loading/strengthening of supporting structures</li> <li>• Maintain full ROM</li> <li>• Independent with progressed home exercise program, all daily activities with appropriate activity modification</li> <li>• Patient Education               <ul style="list-style-type: none"> <li>◦ Pathomechanics</li> <li>◦ Ergonomics/posture</li> <li>◦ Activity modification</li> <li>◦ Lifting mechanics</li> </ul> </li> </ul>
<p><b>Additional Interventions</b> *Continue with Phase I interventions</p>	<p><i>Strengthening: Minimal loading</i></p> <ul style="list-style-type: none"> <li>• Wrist flexor/extensor isometrics</li> <li>• Neuromuscular re-education of proximal scapular stabilizing musculature Serratus anterior, middle/lower trapezius isometrics</li> </ul> <p><i>Stretching</i></p> <ul style="list-style-type: none"> <li>• Wrist flexors (elbow flexed to 90 degrees)</li> <li>• Wrist extensors (elbow flexed to 90 degrees)</li> </ul>
<p><b>Criteria to Progress</b></p>	<ul style="list-style-type: none"> <li>• Maintenance of full ROM</li> <li>• Full tolerance to stretching at 90 degrees of elbow flexion</li> <li>• Tolerance to light/unloaded daily activities without increase in pain</li> <li>• 70% strength of contralateral side</li> </ul>

**PHASE III: LATE/CHRONIC**  
(WEEKS 4-6+ AFTER SURGERY)

<p><b>Rehabilitation Goals</b></p>	<ul style="list-style-type: none"> <li>• Maintain full ROM</li> <li>• Promote proper movement patterns</li> <li>• Avoid post-exercise pain/swelling</li> </ul>
<p><b>Additional Intervention</b> *Continue with Phase I-II interventions</p>	<p><i>Strengthening</i></p> <ul style="list-style-type: none"> <li>• Eccentrics/Concentrics (while both motions are beneficial, some patients may tolerate eccentric loading prior to concentric loading)             <ul style="list-style-type: none"> <li>Wrist flexion/extension</li> <li>Forearm pronation/supination</li> <li>Mobilization with movement</li> </ul> </li> <li>• Progression of neuromuscular re-education of proximal scapular stabilizing musculature</li> </ul> <p>Resisted serratus anterior, lower/middle trapezius strengthening</p> <p><i>Stretching</i></p> <ul style="list-style-type: none"> <li>• Wrist flexors (elbow straight/extended)</li> <li>• Wrist extensors (elbow straight/extended)</li> </ul> <p><i>Correction of movement abnormalities with functional tasks</i></p> <p><i>Plyometrics Program</i></p>
<p><b>Criteria for Progress/Return to Sport</b></p>	<ul style="list-style-type: none"> <li>• Independent self-management of symptoms</li> <li>• Achieve all muscle strength goals (90% of contralateral side)</li> <li>• Achieve functional goals</li> <li>• Demonstrate appropriate understanding of condition and maintenance to prevent risk of recurrence</li> </ul>

For further assistance or to schedule an appointment, please contact **iOrtho - The Orthopedic Institute** at **833-464-6784** or visit our website at **iorthomd.com** to text/email us. Our team is dedicated to providing personalized care and guidance throughout your rehabilitation journey.