



*Orthopedic Surgery, Sports Medicine & Arthroscopy Specialists*

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### **REHABILITATION PROTOCOL- Lateral epicondylitis release**

The rehabilitation guidelines are presented in a criterion based progression program. General time frames are given for reference to the average, but individual patients will progress at different rates depending on their age, associated injuries, pre-injury health status, rehab compliance, tissue quality and injury severity. Specific time frames, restrictions, and precautions may also be given to protect healing tissues and the surgical repair/reconstruction. It should not be a substitute for one's clinical decision making regarding the progression of a patient's post-operative course based on their physical exam findings, individual progress, and/or the presence of post-operative complications. The therapist should consult the referring physician with any questions or concerns.

Special attention must be given to impairments that caused the initial problem. For example, if the patient is s/p partial medial meniscectomy and they have a varus alignment, post-operative rehabilitation should include correcting muscle imbalances or postures that create medial compartment stress.

### **INDIVIDUAL CONSIDERATIONS: S/p**

### **PHASE 1- Surgery to 2 weeks**

REHAB GOALS	<ol style="list-style-type: none"> <li>1. Protection of the post-surgical repair</li> <li>2. Avoid contracture</li> <li>3. Minimize swelling, pain &amp; inflammation</li> </ol>
PRECAUTIONS	<ol style="list-style-type: none"> <li>1. Minimize activities that stress wrist &amp; finger extensors</li> <li>2. Cryocuff 3-5 times per day for 20 minutes and ice after every therapy session</li> </ol>
RANGE OF MOTION EXERCISES	<ul style="list-style-type: none"> <li>○ Codman exercises</li> <li>○ Scapular retraction</li> <li>○ Elbow active ROM and active assist ROM, no passive</li> </ul>
SUGGESTED THERAPEUTIC EXERCISES	<ul style="list-style-type: none"> <li>○ As above</li> </ul>
CARDIOVASCULAR EXERCISE	Stationary bike at 10 days. No gripping of handle with operative arm
PROGRESSION CRITERIA	<ul style="list-style-type: none"> <li>○ Minimal pain &amp; swelling</li> </ul>

**PHASE 2- 2-6weeks**

REHAB GOALS	<ol style="list-style-type: none"> <li>1. Protection of the post-surgical repair</li> <li>2. Continue activity modification (avoidance of gripping, lifting, carrying with operative arm)</li> <li>3. Avoid painful exercises</li> <li>4. Minimize pain and swelling</li> </ol>
PRECAUTIONS	<ol style="list-style-type: none"> <li>1. Avoid gripping, lifting, carrying items with operative arm</li> <li>2. Cryocuff 3-5 times per day for 20 minutes and ice after every therapy session</li> </ol>
RANGE OF MOTION EXERCISES	<ul style="list-style-type: none"> <li>○ Active/active assist ROM of elbow</li> <li>○ Low intensity/long duration stretch for extension as needed, perform supine with towel roll under humerus</li> <li>○ Gentle wrist ROM with elbow flexed</li> <li>○ AROM of shoulder</li> </ul>
SUGGESTED THERAPEUTIC EXERCISES	<ul style="list-style-type: none"> <li>○ As above</li> <li>○ Manual sidelying scapular stabilization with resistance proximal to elbow</li> </ul>
CARDIOVASCULAR EXERCISE	Stationary bike without gripping of handle with operative arm
PROGRESSION CRITERIA	<ul style="list-style-type: none"> <li>○ Minimal pain &amp; swelling</li> </ul>

**PHASE 3- 6-10 weeks postop**

REHAB GOALS	<ul style="list-style-type: none"> <li>○ Protect surgical repair</li> <li>○ No pain with ADLs</li> <li>○ Full ROM</li> <li>○ Begin to restore Shoulder, scapular, elbow &amp; forearm strength</li> </ul>
PRECAUTIONS	<ul style="list-style-type: none"> <li>○ Avoid gripping, carrying items with operative arm</li> <li>○ Avoid end range of elbow extension with all exercises</li> </ul>
RANGE OF MOTION EXERCISES	<ul style="list-style-type: none"> <li>○ Continue exercises from phase 2.</li> <li>○ If no full extension, joint distraction &amp; posterior gliding of ulna on humerus as well as weight or elastic resistance to stretch</li> </ul>
SUGGESTED THERAPEUTIC EXERCISES	<ul style="list-style-type: none"> <li>○ Sport specific core &amp; lower extremity strengthening. Avoid holding heavy weights in hands</li> <li>○ Shoulder &amp; scapular strengthening-rhomboids, serratus, trapezius, lats, rotator cuff</li> <li>○ Biceps &amp; triceps strengthening</li> </ul>

	<ul style="list-style-type: none"> <li>○ Isotonic wrist &amp; finger extensor strengthening with elbow supported &amp; in flexion</li> <li>○ Rhythmic shoulder stabilization exercises with resistance proximal to elbow</li> </ul>
<b>CARDIOVASCULAR EXERCISE</b>	Stationary bike, avoid gripping handle
<b>PROGRESSION CRITERIA</b>	<ul style="list-style-type: none"> <li>○ Full elbow ROM</li> <li>○ Pain free w/exercises &amp; ADLs</li> <li>○ 5/5 shoulder &amp; scapular strength</li> <li>○ Shoulder ROM equal to contralateral</li> </ul>

**PHASE 4- 10-14 weeks postop**

<b>REHAB GOALS</b>	<ul style="list-style-type: none"> <li>○ Restore normal shoulder &amp; scapular strength</li> <li>○ Restore shoulder &amp; forearm flexibility</li> <li>○ Progress to overhead activities</li> </ul>
<b>PRECAUTIONS</b>	Post-activity soreness should resolve within 24 hours Avoid post activity swelling
<b>RANGE OF MOTION EXERCISES</b>	<ul style="list-style-type: none"> <li>○ Continue with flexibility exercises from previous phase</li> <li>○ Forearm stretching</li> <li>○ Posterior shoulder flexibility</li> </ul>
<b>SUGGESTED THERAPEUTIC EXERCISES</b>	<ul style="list-style-type: none"> <li>○ Progress phase 3 activities with resistance/weight</li> <li>○ Progress rotator cuff strengthening to 90 deg internal &amp; external position</li> <li>○ Wrist &amp; finger extension strengthening, emphasize eccentrics</li> <li>○ Begin PNF</li> <li>○ Progress rhythmic stabilization exercises to resistance distal to elbow and to overhead</li> </ul>
<b>CARDIOVASCULAR EXERCISE</b>	Progress to upper body ergometry
<b>PROGRESSION CRITERIA</b>	<ul style="list-style-type: none"> <li>○ No pain or swelling</li> <li>○ Full range of motion</li> </ul>

**PHASE 5- 14-24 weeks**

<b>REHAB GOALS</b>	<ul style="list-style-type: none"> <li>○ Restore normal neuromuscular function</li> <li>○ Begin sport/work specific activities without pain</li> <li>○ Restore full strength, ROM, endurance</li> </ul>
<b>PRECAUTIONS</b>	<ul style="list-style-type: none"> <li>○ Post-activity soreness should resolve within 24 hours</li> </ul>

RANGE OF MOTION EXERCISES	<ul style="list-style-type: none"> <li>○ Continue with flexibility exercises</li> <li>○ Lower extremity flexibility per sport</li> </ul>
SUGGESTED THERAPEUTIC EXERCISES	<ul style="list-style-type: none"> <li>○ Progress strengthening from phase 4</li> <li>○ Wrist &amp; finger extensor strengthening with elbow in extension</li> <li>○ Forearm pronation &amp; supination, light resistance</li> <li>○ Progress rhythmic stabilization to all functional positions</li> <li>○ Plyometrics-asymptomatic w/normal strength &amp; flexibility. Progression: chest pass, side to side wood chops, overhead soccer pass, one handed ER with arm at side, one arm ER in 90 internal and external</li> <li>○ Deceleration exercises in kneeling, progress to standing</li> <li>○ Sport specific- begin, tennis begin after several weeks of plyometrics without symptoms</li> </ul>
CARDIOVASCULAR EXERCISE	<ul style="list-style-type: none"> <li>○ Continue to progress from phase 4.</li> </ul>
PROGRESSION CRITERIA	<ul style="list-style-type: none"> <li>○ Normal grip strength</li> <li>○ Normal upper extremity flexibility, strength, power, endurance</li> <li>○ Completion of sport specific program</li> </ul>

**PHASE 6- 24+ weeks**

REHAB GOALS	Return to sport
PRECAUTIONS	Post-activity soreness should resolve within 24 hours
RANGE OF MOTION EXERCISES	Continue with flexibility exercises
SUGGESTED THERAPEUTIC EXERCISES	<ul style="list-style-type: none"> <li>○ Progress strengthening from phase 5</li> </ul>
CARDIOVASCULAR EXERCISE	<ul style="list-style-type: none"> <li>○ Progress to baseline</li> </ul>
PROGRESSION CRITERIA- RETURN TO SPORT	<ul style="list-style-type: none"> <li>○ Pain free</li> <li>○ Normal grip strength measured with dynamometer</li> <li>○ Normal rotator cuff ratio</li> <li>○ Scapular symmetry</li> </ul>

