

**Jared T. Lee, MD**

Hip, Knee, Shoulder & Sports Medicine Surgery  
The Steadman Clinic – Aspen  
401 Castle Creek Rd, Suite 2100, Aspen, CO 81611  
Practice Manager: Elizabeth Fioretti, M.Ed., LAT, ATC  
(970) 456-2798



**QUADRICEPS TENDON REPAIR REHABILITATION PROTOCOL**

Phase	Restrictions	Therapeutic Exercises
<p>Phase 1: Weeks 0-2</p> <p>Goals: Reduce swelling and edema, minimize pain, retard muscle atrophy, protect the surgical repair, and avoid patellar tendon stress</p>	<ul style="list-style-type: none"><li>-NO active range of motion</li><li>-NO quadriceps strengthening</li><li>-NO knee flexion while weight-bearing</li><li>-Patient may weight-bear ONLY with the brace locked in extension</li></ul>	<ul style="list-style-type: none"><li>-Passive range of motion 0-60 degrees</li><li>-Edema Control</li><li>-Pain management</li><li>-Please only remove Aquacel dressing if saturated or compromised</li><li>-Modalities PRN</li></ul>
<p>Phase 2: Weeks 2-6</p> <p>Goals: Progress range of motion, minimize pain, retard muscle atrophy, protect the repair, and begin neuromuscular control</p>	<ul style="list-style-type: none"><li>-NO active range of motion</li><li>-Patient may weight-bear and ambulate ONLY with the brace in extension, or from 0-10 degrees for comfort</li><li>-NO active knee extension</li></ul>	<ul style="list-style-type: none"><li>-Passive range of motion 0-60 degrees, increasing by 10 degrees per week until 90 degrees is achieved</li><li>-Once 90 degrees is achieved, patient may perform active knee flexion 0-90 degrees, <b>but no active knee extension</b></li><li>-Continue with only passive knee extension</li><li>-Begin isometric quadriceps activation</li><li>-Core strengthening</li><li>-Modalities PRN</li></ul>
<p>Phase 3: Weeks 6-12</p> <p>Goals: Full range of motion, minimal pain, begin muscular activation and strengthening, protect the repair</p>	<ul style="list-style-type: none"><li>-Continue to weight-bear and ambulate in the brace unlocked from 0-45 degrees</li><li>-NO resistance during range of motion</li><li>-Avoid true strengthening exercises until 12 weeks</li></ul>	<ul style="list-style-type: none"><li>-Progress to full passive, active, and active assisted range of motion without resistance</li><li>-Controlled straight leg raises</li><li>-Begin gentle hip, and glute strengthening</li><li>-Stationary bike with no resistance at 10 weeks</li></ul>
<p>Phase 4: Weeks 12-18</p> <p>Goals: Proper gait mechanics, improve lower extremity strength, neuromuscular control</p>	<ul style="list-style-type: none"><li>-Discontinue brace use</li><li>-No functional sports movements. Avoid pivoting, cutting, and jumping</li></ul>	<ul style="list-style-type: none"><li>-Weight-bearing and ambulating without the brace</li><li>-Gait training</li><li>-Begin active knee extension with limited resistance and progress as tolerated</li><li>-Stationary biking with limited resistance</li><li>-Gentle double leg strengthening (mini squats, lunges)</li><li>-Aquatic Therapy (kicking, gait training)</li></ul>

<p>Phase 5: Weeks 18-24</p> <p>Goals: Improve lower extremity strength, begin functional movement training, proprioception improvement, eccentric control</p>	<p>-Progress gently to avoid trauma to the repair</p> <p>-Initiate jogging</p> <p>-Progression to higher level activities and sports specific activities</p>	<p>-Initiate deceleration and single leg hopping</p> <p>-Initiate cutting at week 20</p> <p>-Initiate agility at week 20 (floor ladder, cone drills), and sports specific activity</p> <p><b>Criteria for Discharge:</b></p> <ul style="list-style-type: none"><li>- <b>&lt;10% strength deficit in quads and gluteals</b></li><li>- <b>Limb similarity index of 90% or greater on functional hop and Y balance tests</b></li><li>- <b>45/50 on biomechanical functional assessment tests (if performed)</b></li><li>- <b>No pain or complains of instability with functional progression of sports specific skills</b></li></ul>
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