

## Quadricep and Patellar Tendon Repair

Dr. Erickson

Time Frame	Treatment	Goals
Post-Op Day 1- Phase I (Day of surgery – 2 weeks after surgery)	<ul style="list-style-type: none"> <li>• Instruction in signs and symptoms of infection</li> <li>• Instruction in cryotherapy</li> <li>• Instruction in HEP including ankle pumps, isometric quad sets, hamstring sets, glute sets and patellar mobilizations.</li> <li>• Ambulate with crutches</li> <li>• WBAT (Weight bear as tolerated) with knee locked in extension. Brace must be worn at all times.</li> <li>• Keep incision covered and dry</li> </ul>	<ul style="list-style-type: none"> <li>• Protect the repair</li> <li>• Independent in HEP</li> <li>• Independent in cryotherapy</li> <li>• Independent in donning and doffing of knee brace.</li> </ul>
Phase II (2 – 6 weeks after surgery)	<ul style="list-style-type: none"> <li>• Weeks 3- 6: Gradually work towards 0 to 90 degrees without active quadriceps extension</li> <li>• Precautions and ROM may be altered on a patient-by-patient basis. Check with surgeon.</li> <li>• Exercises: heel slides, knee extension stretch, 4-way SLR, patellar mobilizations, weight shifting on surgical limb with brace on.</li> </ul>	<ul style="list-style-type: none"> <li>• Normalize gait with WBAT, continuing to use brace locked in extension.</li> <li>• Brace must be locked in extension unless completing rehab exercises</li> <li>• Wean from crutches given good leg control in extension</li> <li>• Progression Criteria: 0-90 Knee ROM, progress 6 weeks post-op</li> </ul>
Phase III (usually 6-12 weeks after surgery)	<ul style="list-style-type: none"> <li>• Graduate progression to weight bearing with knee flexion.</li> <li>• No weight bearing in flexion past 70 degrees for 12 weeks after surgery.</li> <li>• Exercises: Stationary bike, prone knee flexion, open-chain hip strength, core stability, Closed chain quadriceps control from 0- 40 degrees with light squats and leg press. Progressing to shallow lunge steps , active range of motion for open chain knee flexion and extension against gravity only.</li> </ul>	<ul style="list-style-type: none"> <li>• Normalize gait on level surfaces with brace opened to 30- 40 degrees without crutches</li> <li>• Initiate active quadriceps contractions in weight bearing.</li> <li>• Progression Criteria: Normal gait mechanics without crutches. Active knee ROM at least 0 -110 degrees.</li> </ul>

<p>Phase IV (begin at 12 weeks after surgery until progression criteria is met)</p>	<ul style="list-style-type: none"> <li>• Avoid any forceful eccentric contractions</li> <li>• Avoid impact activities</li> <li>• Avoid exercises that create movement compensations</li> <li>• Suggested exercises: non-impact balance and proprioception, stationary bike, gait drills, hip and core strengthening, stretching of muscle imbalances.</li> </ul>	<ul style="list-style-type: none"> <li>• Normalize gait on all surfaces without brace</li> <li>• Single leg stance with good quad control for 10 seconds</li> <li>• Full Knee ROM</li> <li>• Good control with squat to 70 degrees of knee flexion</li> <li>• Progression Criteria: Dynamic neuromuscular control without pain, instability or swelling.</li> </ul>
<p>Phase V (Approx. 4 months after surgery)</p>	<ul style="list-style-type: none"> <li>• Post-activity soreness should resolve within 24 hours</li> <li>• Avoid post-activity swelling</li> <li>• Avoid running with compensatory patterns or a limp</li> <li>• Suggested exercises: <ul style="list-style-type: none"> <li>○ Impact control exercises beginning 2 feet to 2 feet, progressing from 1 foot to the other, then 1 foot to same foot</li> <li>○ Movement control exercise beginning with low velocity, single plane activities and progressing to higher velocity, multi-plane activities</li> <li>○ Sport/work specific balance and proprioceptive drills</li> <li>○ Continuation of Phase IV exercises</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Good control and no pain with sport and work specific movements including impact</li> <li>• Progression to sport/work criteria: Dynamic neuromuscular control with multiplanar activities, without pain or swelling.</li> <li>• Receive clearance from both orthopedic surgeon and rehabilitation specialist prior to return to sport/work.</li> </ul>