ILLINOIS BONE & JOINT INSTITUTE®
Move better. Live better.

T: 847-381-0388
F: 847-381-0811

Patellar Tendon and Quadriceps Tendon Repair
Post-Operative Rehabilitation Protocol
Illinois Bone & Joint Institute

Patellar tendon and quadriceps tendon repairs involve repairing the tendons that support the knee during ambulation and stance. This repair needs to be protected while it heals which takes approximately 8-12 weeks. The intent of this protocol is to provide the clinician with a guideline for the postoperative rehabilitation course of a patient that has undergone this repair. This protocol is by no means intended to 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. If a clinician requires assistance in the progression of a post-operative patient they should consult with the referring surgeon

Phase 1:

Time Frame: 0-6 weeks

Immobilization / Weight Bearing Status: Weight bearing as tolerated in knee brace locked in extension. Crutches as needed for assistance.

CPM Machine: Start 1st day after surgery, 2-4 hours per day as tolerated. Initial settings: 0-30°, increase 10° per week.

Exercises: Initially focus on regaining terminal extension. Passive extension-active flexion. Heel slides, ROM: 0-30°, increase 10° per week. Quadriceps activation (isometric sets), straight leg raises against gravity. Gentle patellar mobilizations.

Phase 2:

Time Frame: 6-12 weeks

Immobilization: Weight bearing as tolerated in knee ROM brace opened to 30° for weeks 6-8. Discontinue brace after 8 weeks post-operatively.

Restrictions: Continue to advance ROM 10° per week. Avoid forceful stretch. Stretch to tolerable discomfort, avoid pain. Avoid weight bearing with knee flexed past 60°. Avoid active knee extension until 8 weeks post-op.

T: 847-381-0388
F: 847-381-0811

Exercises: Gradually increases ROM exercises and strengthening within limits of restrictions listed above. Open chain knee flexion is allowed. Closed chain quadriceps exercises after 8 weeks post-op with from 0-40° light squats and leg press with shallow lunge steps.

Phase 3:

Time Frame: 12-20 weeks

Immobilization: None

Restrictions: Exercise advancement should be gradual and in slow increments while avoiding pain. If patient develops pain, drop back to early phase of rehabilitation, until pain free. No ROM restrictions. Avoid forceful eccentric contractions, impact activities and exercises that create movement compensations.

Exercises: Continue with PROM, AAROM and AROM and strengthening exercises. Progression should be gradual and in slow increments while avoiding pain. Recommend non-impact balance and proprioceptive drills, stationary bike and gait drills. Hip and core strengthening. Quadriceps strengthening – closed chain exercises, initially in a short arc of motion, with gradual progression to increasing flexion. Add functional movements including squat, step back and lunge.

Phase 4:

Time Frame: 20+ weeks

Immobilization: None

Restrictions: No specific restrictions. Patients ROM, strength and endurance should be advanced progressively while avoiding pain.

Exercises: ROM should be returning to normal; if not, continue to address with stretching and a HEP. Continue with progressive lower-body, upper-body and core strengthening exercises. Add plyometric training for athletes at 20 weeks with exercises simulating sports requirements at 26 weeks. In work related injuries add work specific strengthening exercises at 20 weeks. At 26 weeks, consider work conditioning program based on patients job requirements and patient motivation. Jogging is allowed at 20 weeks.