
Quadriceps and Patellar Tendon Repair Protocol

Phase I: Protection

- Weeks 0 to 4** Brace locked in full extension for six weeks
- Touch down weight bearing for week one and two**
50 percent weight bearing week three
75 percent week four
Wean off crutches at four weeks, but continue brace
Patella and patella tendon mobility drills
Range of motion (ROM): Start with 0 degrees to 30 degrees knee flexion at week three
- Weeks 4 to 6** Full weight bearing with brace
Continue patella/patella tendon mobility
Range of motion: Continue to progress slowly toward 90 degrees

Phase II: Progressive Range of Motion and Early Strengthening

- Weeks 6 to 8** Full weight bearing
Open brace 0 degrees to 90 degrees if quad control is adequate
Gradually progress to full ROM
Begin quadriceps setting
Begin multi-plane straight leg raising
Closed kinetic chain strengthening program focusing on quality VMO function
Normalize gait pattern
Begin stationary bike
- Weeks 8 to 10** Wean out of brace
Progress open and closed kinetic chain program from bilateral to unilateral
Increase intensity on stationary bike
Begin treadmill walking
- Weeks 10 to 12** If not at full ROM, aggressive stretch
Advance unilateral open and closed kinetic chain strengthening
Initiate proprioception drills
May introduce elliptical trainer

Phase III: Progressive Strengthening

Weeks 12 to 16 Advance open and closed kinetic chain strengthening
Increase intensity on bike, treadmill and elliptical trainer
Increase difficulty and intensity on proprioception drills
Begin leg press, hamstring curls, ab/adduction
No lunges or knee extensions

Phase IV: Advanced Strengthening and Functional Drills

Weeks 16 to 20 May begin leg extensions; 30 degrees to 0 degrees
Begin running program if all above goals are met

Phase V: Plyometric Drills and Return to Sports Phase

Weeks 20 to 24 Advance gym strengthening
Progress running/sprinting program
Begin multi-directional field/court drills
Begin bilateral progressing to unilateral plyometric drills