
Quadriceps and Patellar Tendon Repair Rehabilitation Protocol

Phase I: Protection (Weeks 0 to 6)

Weeks 0 to 4

- Brace locked in full extension for six weeks
- 50 percent weight bearing for three weeks
- 75 percent weeks three to four
- Wean off crutches at four weeks
- 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
- Continue patella/patella tendon mobility
- ROM: Progress to maximum of 90 degrees

Phase II: Progressive Range of Motion and Early Strengthening (Weeks 6 to 12)

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, abduction/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 (Weeks 20 to 24)

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