

Rehabilitation Protocol: Quadriceps/Patellar Tendon Repair

Phase 1 (Weeks 0-2)

- **Weightbearing:** As tolerated in the hinged knee brace locked in extension
- **Hinged Knee Brace:** Locked in full extension except when performing rehab exercises
- **Range of Motion:** 0-30°, Passive ROM only
- **Therapeutic Exercises**
 - Isometric quadriceps strengthening, straight leg raises with brace locked in extension
 - Patellar mobilizations
 - Ankle pumps

Phase 2 (Weeks 2-6)

- **Weightbearing:** Continue WBAT in the hinged knee brace locked in extension
- **Hinged Knee Brace:** Locked in full extension except when performing rehab exercises
- **Range of Motion:** Active/Passive ROM (**NO active knee extension**)
 - Weeks 2-4: 0-60°
 - Weeks 4-6: 0-90°
- **Therapeutic Exercises**
 - Continue Phase 1 exercises
 - Heel slides
 - 4-way leg lifts with brace locked in extension

Phase 3 (Weeks 6-12)

- **Weightbearing:** Wean from crutches; set brace to 0-40° for ambulation
- **Hinged Knee Brace:** 0-40° for ambulation; otherwise set flexion to match amounts below
- **Range of Motion:** AROM/PROM
 - Weeks 7-8: 0-115° without active knee extension
 - Weeks 9-10: 0-130°; active knee extension now allowed
- **Therapeutic Exercises**
 - Closed chain quadriceps control 0-40° with light leg press and light squats
 - Prone knee flexion
 - Stationary bicycle
 - Open chain hip strengthening
 - Core strengthening

Rehabilitation Protocol: Quadriceps/Patellar Tendon Repair (continued)

Phase 4 (Weeks 12-16)

- **Weightbearing:** As tolerated
- **Hinged Knee Brace:** Discontinue brace
- **Range of Motion:** As tolerated
- **Therapeutic Exercises**
 - Progressive closed chain quadriceps exercises, gradually advance to 0-70°
 - Stationary bicycle, Stairmaster, Swimming
 - Squats, step-backs, lunges
 - Hip and core strengthening
- Modalities per PT discretion. Okay to begin blood flow restriction therapy.

Phase 5 (From Week 16)

- **Weightbearing:** As tolerated
- **Range of Motion:** As tolerated
- **Therapeutic Exercises**
 - Initiate open chain knee extension exercises: begin at 0-30° and advance from there
 - Sport/work-specific balance and proprioceptive drills
 - Progressive impact control exercises, beginning with two feet to two feet, then one foot to the other foot, then one foot to the same foot
 - Hip and core strengthening
- **Return to sport when dynamic neuromuscular control is sufficient and functional demands are met without pain**