

## Quad Tendon Repair/Unilateral Patellar Tendon Repair

### Phase I (1 – 5 days post-op)

- Wound care: Monitor site for signs of infection
- Modalities: prn for pain and inflammation (ice, IFC, elevation)
- Brace: Hinged brace on and locked for all activities including sleeping for 6 weeks. Brace may be removed for bathing once surgical incision is healed.
- Gait:
  - Days 1-3: TTWB with crutches and brace locked in full extension
  - Days 4-7: WBAT with crutches and brace locked in full extension
- ROM:
  - Days 1-4: PROM 0-30 degrees
  - Days 4-7: 0-25 degrees NWB
- Exercises:
  - Quad/glute/hamstring sets and ankle pumps
  - Begin gentle patellar inf/sup and med/lat glides
  - Days 4-7: initiate gravity eliminated SLR flexion (assisted as needed)

### Phase II (5 days – 4 weeks post-op)

- Wound care: Monitor site for signs of infection and begin scar management techniques when incision is closed
- Modalities: prn for pain and inflammation (ice, IFC, elevation)
- Brace: Hinged brace on and locked for all activities including sleeping for 6 weeks. Brace may be removed for bathing once surgical incision is healed
- Gait:
  - At 4 weeks post-op, progress to 1 crutch as tolerated
  - At 5 weeks post-op, D/C crutches as tolerated
  - At 6 weeks post-op, progress to FWB and unlock brace for ambulation
- ROM:
  - Week 2: PROM 0-60 degrees
  - Weeks 3-4: PROM 0-75 degrees
  - Week 5: 0-80 degrees
  - Week 6: 0-90 degrees

- Strengthening:
  - Week 2-3: Hip abd/add, ankle pumps, 4 way SLR with brace locked in ext, quad/ham sets
  - Week 4:
    - Begin partial squat 0-45 degrees. OK to unlocked brace for mini squats only
    - Initiate proprioception drills
    - Initiate weight shifts
  - Weeks 5-6:
    - Initiate open chain knee extension AROM 90-30 degrees
    - Initiate gravity resisted supine SLR flexion
    - Multi-angle isometric knee extension

### **Phase III (7 weeks – 16 weeks post-op)**

- Gait/Brace: Progress to FWB with brace open to full ROM. D/C brace when sleeping
- ROM:
  - Week 7: 0-100 degrees
  - Week 8: 0-105 degrees
  - Week 9: 0-110 degrees
  - Week 10: 0-115 degrees
  - Week 12+: 0-125 degrees
- Strengthening: Gradually increase muscular strength
  - Week 7-11: Heel raises, fwd step ups, partial squats/leg press/wall slides (0-60 degrees), fwd/lat lunges, ham curls within ROM guidelines, balance and proprioception activities, stationary bike, LE stretches for quads/hams/calf/IT band
  - Week 12-16: Initiate fwd steps downs, posterior lunges, lat step ups, and walking program. No sports.

**Phase IV (16+ weeks post-op)**

- Strengthening: Progress as tolerated
  - At 5 months: Initiate plyometrics and agility drills
  - At 5-6 month: Initiate light running program
- Testing: Final functional tests <25% deficits for non-athletes and <20% deficit for athletes compared to contralateral side

**Adapted From:**

- 1) Advanced CEU. Rehabilitation Following Unilateral Quadriceps Tendon Repair, Wilk, KE. 2019.