

## Postoperative Rehabilitation Protocol for Achilles Tendon Repair

*\*Physical Therapy should be started immediately following the 2 week post-op visit*

### Phase 1: Postoperative weeks 0-2

- Goals
  - Protect repair
  - Minimize pain / swelling
- Precautions
  - Keep splint clean and dry
  - Nonweightbearing for 2 weeks

### Phase 2: Postoperative weeks 2-6 (Early Loading Phase)

- Precautions
  - Dorsiflexion active ROM only. Do **not** actively stretch
- Goals:
  - DR AROM to 0 degrees with knee extended
- ROM
  - Initiate pain-free AROM plantarflexion, inversion, eversion; continue PROM
  - Joint mobilizations: improve accessory motions at subtalar, midfoot, and forefoot joints as needed
- Weight bearing
  - Initiate WBAT with crutches in CAM walker boot starting post-op week 2
    - 2 heel lifts: remove 1 lift every 1-2 weeks per surgeon's note
  - Discharge crutches by week 4
  - Week 4: initiate weight shifts out of boot as tolerated.
- Exercises
  - Submaximal ankle isometrics
  - Seated heel raises
  - BAPS board seated as tolerated
  - Gluteal and lumbopelvic strengthening and stability.
  - Initiate at 4 weeks
    - Progressive resisted PF, inversion, and eversion with theraband
    - Seated heel raises with light weight
    - Initiate balance/proprioceptive training on stable surface when able to weight bear I neutral ankle position out of boot.
    - Standing BAPS board as tolerated: PWB→FWB
    - Light weight double leg press
    - Neuromuscular Electrical Stim at 4 weeks in standing when patient able to equally bear weight

### Phase 3: Postoperative weeks 6-12 (Strength Phase)

- Precautions: DF AROM only. Do **not** passively stretch > 0 degrees DP
- Goals:
  - Initiate weight bearing strengthening exercises
  - Gradual wean from boot and lifts with goal of ambulation in supportive shoe by week 8
  - >10 single leg heel raises with heel height within 20% of uninvolved limb.
- Weight bearing
  - Week 8: wean out of boot. Initiate walking in shoe/neutral ankle position
    - Use of heel wedges in shoe as needed. Start with numbness where no pain is felt and patient demonstrates proper gait mechanics and slowly wean
  - Criteria to discharge walking boot
    - Able to achieve 0 degrees dorsiflexion
    - Pain free ambulation with nonantalgic gait
- Exercises
  - Initiate balance training on unstable surfaces
  - Continue BAPS standing as tolerated within pain-free ROM
  - Closed chain hip and knee strengthening
  - Recumbent bike in shoe
  - Initiate calf raise progression shuttle:
    - Double leg → 2 up 1 down → single leg
    - Starting position: neutral ankle → dorsiflexion
  - Week 8: initiate standing heel raise progression as able
    - Double leg → 2 up 1 down → single leg
    - Starting position: neutral ankle → dorsiflexion
  - Week 10
    - Initiate step holds with focus on lower extremity alignment and balance (within available DF)
    - Initiate heel taps (within available DF)

### Phase 4: Postoperative weeks 12+ (Sports Activity)

- Precautions: None
- Weight bearing: normal gait mechanics
- Exercises
  - Emphasize strength at end-range PF
  - Continued progression of strength/stability/balance on stable and unstable surfaces
  - Initiate plyometric progression
  - Step/hop holds
  - Resisted jogging in place in all planes
  - Sport-specific exercise. Progress agility
- Criteria to initiate return to running / jumping
  - 95% symmetry ROM
  - 95% calf circumference symmetry
  - Normal gait and mechanics
  - 25 single leg heel raises with heel height within 20% of unaffected side
  - Between 12-16 weeks
- Criteria for Return to Sport
  - <10% plantarflexion strength asymmetry at 0 degrees DF and <25% asymmetry at 20 degrees plantarflexion with dynamometer.

- 90% symmetry between limbs on Y-balance test with good mechanics
- 90% symmetry on SL hop testing
- Expected timeframe: 6-9 months.