

ACHILLES TENDON REPAIR REHABILITATION PROTOCOL

Stage 1: IMMEDIATE POSTOPERATIVE PERIOD

- Cast/splint with ankle in plantarflexion
- Toe touch weightbearing with crutches
- Elevate lower extremity above your heart to assist with decreased swelling

Stage 2: TENDON GLIDING / EARLY MOBILIZATION- 10-14 days post-op – 4 weeks post-op

Goals: 1. Control edema and pain

2. Reduce scar adhesion

3. Wound healing

4. Minimize deconditioning

5. Initiate gentle ROM

- ROM walking boot- Full ROM plantarflexion to 7.5 degrees plantarflexion
- Weightbearing as tolerated
- Begin Physical Therapy 1-2 times per week
- Active and passive ROM from full plantarflexion to 5° plantarflexion
 - DF,PF, INV, EV, toe flex/ext within available ROM
- Knee, hip, trunk strengthening without compromising incision site
- Cardiovascular- UBE
- Soft tissue mobilization to scar (once healed) and surrounding soft tissue
- Scar desensitization techniques when properly healed
- Edema reduction techniques- Elevation, ice, and electrical stimulation, pulsed US
- Self-care education- HEP, scar massage, edema control
- NO resisted motion

Stage 3: STRENGTHENING / INCREASED MOBILITY- 4 weeks

Goals: 1. Control edema and pain

2. Reduce scar adhesion

3. Increase ROM

4. Initiate strengthening

- Continue prior phase
- ROM walking boot- Adjust to neutral
- Physical Therapy 2 x per week
- Walking in clinic out of boot allowed as long as neutral dorsiflexion is not exceeded
- Cardiovascular- Begin stationary bicycle out of boot not exceeding neutral DF
- Active and passive ROM from full plantarflexion to neutral
 - DF,PF, INV, EV, toe flex/ext within available ROM
 - BAPS Board within allowed ROM
- Strengthening
 - Seated heel raises
 - Isometrics DF in protective ROM
 - Elastic tubing PF, INV, EV- begin slowly
 - Towel scrunches / marble pick-up
 - Total Gym- squats- avoid ROM beyond neutral DF
 - Total Gym Heel Raises
 - Start bilateral heel raises at lowest level on TG
 - Progress to single leg heel raise on lowest level
- Proprioception
 - Single leg stance with front support to prevent excessive DF
 - Wide stance Fitter Board balance

- Continue with soft tissue mobilizations, scar massage and desensitization, and edema reduction techniques
- Joint Mobilizations to the foot and ankle as indicated protecting incision site

Stage 4: STRENGTHENING / GAIT MECHANICS- 6 weeks

- Goals:**
1. *Control edema and pain*
 2. *Reduce scar adhesion*
 3. *Increase ROM*
 4. *Progress strengthening*
 5. *Gait training*
 6. *Improve proprioception*

- Continue prior phase
- ROM walking boot- adjust to 7.5°
- Physical Therapy 2 x / week
- AROM/PROM from full plantarflexion to 5° dorsiflexion
- Strengthening
 - Standing heel raises
 - Progress to heel raises with single leg eccentric lowering
 - Heel raises should not be progressed to the next level until the patient is able to perform 10 repetitions of a heel raise with full ROM
 - Step-ups, side steps
- Gait training out of brace/boot
- Balance training- single leg stance, foam, Fitter Board, rocker board, standing BAPS, eyes open, eyes closed, etc.
- Continue with soft tissue mobilizations, scar massage and desensitization, and edema reduction techniques
- Joint Mobilizations to the foot and ankle as indicated protecting incision site

STAGE 5: PROPRIOCEPTION / FULL ROM- 8 weeks

- Goals:**
1. *Normal gait*
 2. *Full ROM*
 3. *Progress proprioception*
 4. *Progress strengthening*

- Continue prior phase
- Out of boot
- Physical Therapy 1-2 x / week
- Heel lift as needed
- AROM/PROM- Full ROM
- Single leg heel raise
- Progress strengthening, proprioception, and gait training activities
- Continue with soft tissue mobilizations, scar massage and desensitization, and edema reduction techniques
- Joint Mobilizations to the foot and ankle as indicated protecting incision site

STAGE 6 FUNCTIONAL STAGE- 10 weeks – 20 weeks

- Goals:**
1. *Normal gait on all surfaces and speeds*
 2. *Progress strengthening*

- Continue prior phase
- Physical Therapy as needed
- Neuromuscular training in WB
- Jogging 12-16 weeks
- Running and cutting after 16 weeks
- Plyometrics after 16 weeks