



POSTOPERATIVE REHABILITATION FOR ACHILLES TENDON REPAIR AFTER ACUTE RUPTURE

DOS: _____

Week 1:

- Partial weight bearing; Toe Touch <25%
- ROM: Out of splint active flexion/dorsiflexion, 2 sets of 5 repetitions, 3 times daily
- No strength exercises

Week 2:

- Progressive, partial weight bearing (approx. 25%)
- ROM: Plantarflexion/dorsiflexion, 2 sets of 20 reps. Inversion/eversion 2 sets of 20 reps. Circumduction (both directions) 2 sets of 20 reps
- Strength exercise: isometric inversion/eversion, 2 sets of 20 reps (in neutral). Toe curls with towel and weight
- Gentle manual mobilization of scar tissue; cryotherapy with caution for any open areas of the wound

Week 3:

- Progressive partial weight bearing (50%) in walker boot
- ROM: Previous ankle ROM continued. Gentle passive stretching into dorsiflexion with strap or towel begins
- Strength: Isometric inversion/eversion, 2 sets of 10 reps. Isometric plantarflexion, 2 sets of 10 reps, progression to 20 over course of week 3. One rubber band inversion/eversion, 2 sets, 10 reps. One rubber band plantarflexion and dorsiflexion, 2 sets, 10 reps.
- Manual mobilization of scar and cryotherapy continues. Stationary cycling begins, 7-12 min, minimal resistance. Water exercise can begin under totally buoyant conditions with use of a flotation device. In water, ankle ROM and running or walking activities can be initiated to preserve fitness in lower body. No weight bearing activities can be done in the water.

Weeks 4-6:

- Full weight bearing as tolerated in walking boot
- ROM: Previous exercises decreased to 1 set of 10 reps each direction. Passive stretch continues into dorsiflexion with progressively greater efforts, knee at full extension and flexed to 35-40 degrees. Begin standing calf stretch-knee fully extended and flexed at week 5
- Strength: Decrease isometrics to one set of 20 inversion/eversion and plantarflexion. Progress to three rubber band. Eversion, inversion, dorsiflexion, and plantarflexion, 3 sets of 20 reps. Stationary cycling to 20 min with minimal resistance.

- Gentle cross-fiber massage to Achilles tendon to release adhesions between the tendon and para-tendon; cryotherapy continues; ultrasound, phonophoresis; and electrical stimulation may be added for chronic swelling or excessive scar formation.
- Cycling as outlined above; water exercise continues on totally buoyant state.

Weeks 6-12:

- Weight bearing status, full in cowboy boots or with regular shoe wear with heel lift
- Advance to regular shoe wear with no lift at 8wks
- ROM: Further progressed with standing calf stretch -Strength: Omit isometrics. Continue three rubber-band ankle strengthening in all directions. Begin double-legged toe raises with body weight as tolerated. Balance board exercises are begun for proprioceptive training.
- Therapy adjuncts as needed.
- Stationary cycling, treadmill walking, Stair-Master, water exercises in chest deep water

Weeks 12+:

- Full weight bearing status
- Full ROM
- Strength: Toe raises should progress to use of additional weight at least as great as body weight, and, in the case of athletes, up to 1.5 times body weight. Single-legged toe raises are begun as tolerated.
- Progress to jogging on trampoline and then to treadmill running via a walk-run program. Eventually, perform steady-state outdoor running up to 20 minutes before adding figure-8 and cutting drills. Water exercise should be performed in shallow (waist-deep) water. In the water, begin to include hopping, bounding, and jumping drills.