

Postoperative Rehabilitation for Achilles Tendon Repair after Acute Rupture

Dr. Aukerman

DOS: _____

Week 1, Begin Date: _____

- Partial weightbearing
- ROM: Out of splint active flexion/dorsiflexion, 2 sets of 5 repetitions, 3 times daily
- No strength exercises

Week 2, Begin Date: _____

- Progressive, partial weight bearing
- 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, Begin Date: _____

- Progressive partial weightbearing in walker splint to full weightbearing
- 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 weightbearing activities can be done in the water.

Weeks 4-6, Begin Date: _____

- Full weightbearing status
- 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 paratenon; 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, Begin Date: _____

- Weightbearing status, full in cowboy boots
- 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, StairMaster, water exercises in chest deep water

Weeks 12+, Begin Date: _____

- Full weightbearing 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.