

Achilles Tendon Repair Protocol

PHASE I

Week 1 (Beginning ___ weeks postop)

Weight-Bearing Status: Total non-weight-bearing.

Instruction in protection of the surgical site.

Exercise: Range of Motion: Out of boot active range of motion. Plantar flexion/dorsiflexion

Week 2

Weight-Bearing Status: Total non-weight-bearing.

Exercise: Range of Motion: Plantar flexion/dorsiflexion. Inversion/eversion. Circumduction

Strength Exercise: Isometric inversion/eversion. Toe curls with towel and weight

Therapy adjuncts: Gentle manual mobilization of scar tissue. Cryotherapy with caution for any open areas of the wound

Week 3

Weight –Bearing Status: Progressive Partial weight-bearing program in walker splint.

Exercise: Range of Motion: Previous AROM exercise continued. Gentle passive stretching into dorsiflexion with strap or towel begins.

Strength Exercise: Isometric inversion/eversion, plantar flexion. Red theraband plantar flexion and dorsiflexion

Conditioning Activities: Stationary cycling 7-12 minutes, minimal resistance.

Water exercise can begin under totally buoyant conditions with the use of a flotation device. In the water, ankle range of motion and running or walking activities can be initiated to reserve fitness in the lower body. No weight-bearing activities can be done in the water.

Therapy Adjuncts: Manual mobilization of scar and cryotherapy continues.

PHASE II

Weeks 4-6

Weight-Bearing Status: Progressive partial weight-bearing to full load by week 5-6

Exercise: Range of Motion: Previous AROM exercise. 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 Exercise: Isometrics. Progress to blue Theraband, inversion, eversion, plantar flexion and dorsiflexion.

Conditioning Activities: Stationary cycling minimal resistance. Water exercises continue in totally buoyant state.

Therapy Adjuncts: Gentle cross-fiber massage to Achilles tendon to release adhesions between the tendon and peritendon. Cryotherapy continues: ultrasound, phonophoresis and electrical stimulation may be added for chronic swelling or excessive scar formation.

PHASE III

Weeks 6-12

Weight-Bearing Status: Full weight-bearing in cowboy boots or 1 ½ inch heel, lift, decreasing ¼ inch height on weekly basis. (Patient should be full weight-bearing without a heel lift by Phase IV.)

Exercise: Range of Motion: Further progressed with standing calf stretch.

Strength Exercise: Omit isometrics. Continue Theraband ankle strengthening in all directions. Begin double-legged toe raises with body weight as tolerated. Balance board exercises are begun for proprioceptive training.

Conditioning Activities: Stationary cycling. Treadmill walking. StairMaster. Water exercises in chest-deep water.

Therapy Adjuncts: As needed.

PHASE IV

Weeks 12 and Beyond

Strength Exercises: 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.

Conditioning Activities: Progress to jogging on a trampoline and then to treadmill running via a walk-run program. Eventually, perform steady state outdoor running up to 20 minutes before adding figure eight and cutting drills. Water exercise performed in shallow (waist-deep_ water. In the water, being to include hiping, bounding and jumping drills.

The completely rehabilitated Achilles tendon repair allows 15-20 degrees of dorsiflexion at the ankle, and this must be maintained with regular stretching of the gastroc soleus group. Strength and endurance are developed to preinjury levels, and continued strength and flexibility work is advised.