

ACHILLES TENDON REPAIR PERCUTANEOUS OR OPEN REHABILITATION PROTOCOL

General notes:

Time frames mentioned in this protocol should be considered approximate with actual progression based upon clinical presentation. Physician appointments as well as continued assessment by the treating practitioner should dictate progress.

Avoid forceful active and passive range of motion of the Achilles for 10-12 weeks.

Carefully monitor the tendon and incisions for mobility and signs of scar tissue formation. Regular soft tissue treatments (i.e. scar mobilization and friction massage) may be used to decrease fibrosis.

All exercises should be carefully observed for any signs of compensation or guarding.

No running, jumping, or ballistic activities for 6 months.

Aerobic and general conditioning may be done throughout the rehabilitation process.

M.D. appointments at day one, day eight through ten, month one, month two, month four, month six and one year post-op.

Ice should be applied to the Achilles/foot/ankle area for 15 to 20 minutes following each exercise, therapy, or training session.

Return to sport based on provider team (physician, physician assistant, athletic trainer, therapist) input and appropriate testing.

0 – 3 Weeks:

Brace:

Boot locked, 30 degrees of plantar flexion

Weight Bearing:

Non-weight bearing must use crutches

ROM (range of motion) Goals:

Dorsi flexion (ankle bent up): None

Plantar flexion (ankle bent down): 30 degrees

Therapeutic Exercises:

Strengthening: Toe curls, toe spreads, gentle foot movement in boot, straight leg raises, knee flexion/extension

Conditioning: UBE (upper body exercise bike), single leg stationary bike with uninvolved leg, weight training

Manual Therapy:

Scar massage

Cryotherapy (Ice treatments):

Six to eight times a day for 20 minutes

3 - 8 weeks:

Brace:

Continue with boot; plantar flexion DECREASED five degrees per week until 10 degrees of plantar flexion (allowing progression of dorsi flexion)

Weight bearing:

Gradually increasing from toe-touch to partial, as tolerated; continue with crutches; after 6 weeks, full weight bearing OK

ROM (range of motion) Goals:

Dorsi flexion (ankle bent up): Passive (someone else moves ankle for you) beginning at 6 weeks

Plantar flexion (ankle bent down): 30 degrees

Therapeutic Exercises:

Strengthening: Isometrics of uninvolved muscles, light active dorsiflexion of the ankle until gentle stretch of Achilles; slowly increase the intensity and ranges of isometrics of Achilles within the range of the boot.

Proprioception: Proprioception exercises, intrinsic muscle strengthening, PNF patterns (not to Achilles)

Conditioning: Continue UBE (upper body exercise bike), single leg stationary bike with uninvolved leg, weight training, may begin deep water pool workouts At six weeks, add two-legged stationary cycling with heel push only.

Manual Therapy:

Soft tissue treatments daily

8 - 12 weeks:

Brace:

Transition from boot to shoes with heel (i.e. cowboy boots, 1/4 inch heel lift in shoes); regular shoe by week 12

Weight bearing:

Full weight bearing with heel lift as tolerated

ROM (range of motion) Goals:

Dorsi and Plantar flexion (ankle bent up): Progress to full active and passive ROM

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Therapeutic Exercises:

Strengthening: Begin resistive exercises with theraband, continue isometrics
Proprioception: Gait training, two foot balance activities
Conditioning: Begin regular stationary bike without restriction, begin swimming

Manual Therapy:

Soft tissue treatments daily, avoid forceful, passive Achilles stretching

3 - 6 months:

Brace:

None

Weight bearing:

Full weight bearing, weaning from heel lift

ROM (range of motion) Goals:

Dorsi and Plantar flexion (ankle bent up): Progress to full active and passive ROM

Therapeutic Exercises:

Strengthening: Closed chain, 1/4 to 1/2 depth squat, lunges, bilateral (both sides) heel raises/unilateral heel raise, core strengthening
Proprioception: Gait training, single leg balance activities
Conditioning: begin regular stationary bike without restriction, begin swimming, climbing machine, rowing, cross country ski machine, elliptical, treadmill walking

6 months:

Therapeutic Exercises:

Strengthening: Continue closed chain and core strengthening exercises, raises/unilateral heel raise, plyometric activities
Proprioception: Continue single leg balance activities, excursions
Conditioning: running and cutting, stationary bike, swimming, climbing machine, rowing, cross country ski machine, elliptical

8-9 months:

Return to physically demanding sport and/or work.