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Achilles Tendon Rupture Non-Operative Rehab Protocol

Detailed recovery/ rehabilitation protocol:

Phase I: REST Weeks 0-2

Goals:

- Rest, recovery & immobilize
- Non-weight bearing on crutches

Immobilization:

- Plaster cast/Rigid boot with foot pointing downwards 20 (with 3 wedges inside, 22/16/10)
- Can carefully shower with waterproof cover over cast/boot

PT Guidelines

- Elevate limb as much as possible
- Wear boot 24 hours a day
- Pain control
- Maintain hip/knee/toe movement

Phase II: EASY WALKING Weeks 2-4

Goals:

- Confidently weight bearing as pain allows using crutches
- Begin early, supervised, gentle ankle plantarflexion exercises
- Maintain core, upper limb, hip and knee strength

Immobilization:

- Rigid walking boot with foot pointing downwards with wedges inside of boot
- Wear boot 24 hours a day
- Can shower out of boot as long as very careful not to stand/stumble on foot, otherwise leave boot on with waterproof covering

PT Guidelines:

- Can weight-bear as tolerated with crutches in boot
- Maintain spinal/hip/knee/toe range of motion
- Can remove boot for exercises to gently actively plantarflex foot from position in boot to full range plantarflexion
- Can dorsiflex back to position in the boot, but not beyond
- FHL/FDL/Tib Post tendons massage
- Swelling control

Phase III: WALKING weeks 4-8

Goals:

- Progress to full weight bearing, but maintain use of crutches for balance if needed
- Active ankle movement through available range of plantarflexion from position of foot in boot
- Regain full inversion and eversion in available plantarflexion range
- Aim for ankle plantigrade/foot flat by 6-8 weeks in boot

Immobilization



- Rigid walking boot with wedges being removed weekly to plantigrade position
- Can shower out of boot as long as very careful not to stand/stumble on foot, otherwise leave boot on with waterproof covering

PT Guidelines

- Can remove one wedge per week until foot flat in the boot
- Can perform active resisted plantarflexion, eversion and inversion with Theraband
 - Can actively dorsiflex foot ONLY to position allowed by wedges in boot
- Seated heel raises
- Maintain hip/knee/toe movement
- Exercise bike with boot on
- Gait re-education
 - No knee hyperextension to compensate for lack of ankle dorsiflexion

Phase IV: EASY ACTIVE weeks 8-12

Goals:

- Normal walking
- Aim to remove boot by weaning out by 12 weeks
- Increase ankle and lower limb muscle strength

Immobilization

- Boot with ankle plantigrade/foot flat on the ground
- Shower carefully so as not to stumble/forcefully dorsiflex ankle

PT Guidelines

- Strengthening
 - Continue active resisted theraband exercises; plantarflex through full range, dorsiflexion to a natural plantigrade position, push no further
 - Allow dorsiflexion to return naturally
 - Continue resisted inversion and eversion through range
 - Exercise bike with boot on
 - Seated heel raises

- Proprioceptive rehabilitation
 - Double leg stance out of boot; single leg stand in boot progressing to out of boot as balance improves

Phase V: ACTIVE Weeks 12-24

Goals:

- Mastering proprioceptive control in wearing normal footwear
- Aim for normal dorsiflexion range
- Jogging, increase exercise intensity, sport specific drills

Immobilization

- Normal shoes with good heel support

PT Guidelines

- Theraband exercises
 - Full active ankle range of motion with dorsiflexion as tolerated
- Progress muscle strengthening from open chain to closed chain during this period
- Proprioceptive rehabilitation
 - Single leg stance, eyes closed, wobble board/ BOSU
 - Double heel raise progress to single heel raise
- Concentric/Eccentric
 - Gastroc/soleus conditioning
 - Single heel raises
 - Dorsiflexion equal to contralateral side, no need to push to extreme
- Closed chain
 - Trampette jogging, jumps and hops
 - Plyometric Squats, Plyometric Lunges
 - Hopping, Mini hurdle jumps, straight line running
 - Introduce cutting/side to side/carioca/ figure 8 runs
 - Acceleration-deceleration running drills



- Sport specific rehab

Phase VI: FULL Weeks 24+

Goals:

- Resumption of normal activity

Immobilization

- Normal shoe wear

PT Guidelines

- Normal shoe wear