

ALVAREZ PROTOCOL FOR STAGE I ADULT ACQUIRED FLATFOOT / POSTERIOR TIBIAL TENDINITIS

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Adapted from Alvarez, et al. Foot Ankle Int 27, 2006

Pre-treatment Phase:

Transition from boot/orthotic to regular footwear/orthotic

HEP initiated consisting of gastrocnemius stretching and sole-to sole exercises:

- 25 reps/set, starting at 4 sets/day increasing to 12 sets by 10-14 days
- Once 12 sets/day reached, combine sets until able to do 300 at one setting (3-5 min)

Phase I:

Patient Education:

- Decrease to ADL's only for those unable to walk 1 block w/o pain
- Swimming/biking permitted
- Ice up to every 2 hours
- Avoid whirlpools, Epsom salt baths or heat
- NSAIDS but no steroid injections

Home Program:

- Theraband inversion & eversion with controlled eccentric return: 200 reps, 1-2x/day
- Gastrocnemius stretching: 20-30 seconds/stretch x 20-30 reps, 1-2x/day

Phase II:

Isokinetic workout using Cybex, Biodex or Kincom

- Inversion & Eversion, start at 200 reps/session, increased to 800 reps/session

Continue gastrocnemius stretching

Heel Rises:

- Begin with Double Leg Heel Rise (DLHR) & progress to Single Leg Heel Rise (SLHR) with UE for support & eccentric control down (goal 50 SSHR)

BAPS board

- CW & CCW 5 positions w/ 20 reps each (goal 200 reps each total)

Toe Ambulation

- Start 25-30 feet, goal of 150 feet

Progress HEP

- Increase t-band resistance with goal of 200 reps

Phase III:

Re-evaluation for isokinetic strength, SLHR for 50 reps & toe walk for distance

- If subjective & objective progress: Phase II continued with greater intensity for 4 more visits & evaluation repeated
- Treatment considered to have failed if plateau reached, phase III couldn't be passed or minimal improvement noted. Surgery may be required.