

**Alvarez Protocol for Posterior Tibial Tendon Dysfunction**  
(NB: now formally recognized as Progressive Collapsing Flatfoot Disorder)  
(Alvarez et al, 2006, *Foot and Ankle International*).

**PRETREATMENT PHASE**

- Home exercise program (HEP) initiated consisting of 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 patient can easily do 300 in one setting (taking 3-5 minutes)

**PHASE I**

- Patient Education
  - Decrease to ADL's for those unable to walk 1 block w/o pain
  - Swimming/biking permitted
  - Ice up to every 2 hours
  - No whirlpools, Epsom salt baths or heat
  - NSAIDS, but no steroid injections
  - Red t-band inversion & eversion with controlled eccentric return
  - Begin 200 reps, 1-2 times per day

**Phase II**

- Isokinetic workout using Cybex, Biodex or Kincom
  - Inversion & Eversion, start at 200 reps/session, increased to 800 reps/session
- Heel cord stretching
  - Gastrocnemius on slant board, 30 seconds x 3 sets
- SSHR (Single support heel rise)
  - Begin with double support heel rise (DSHR) & progress to SSHR 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 with blue

### **Phase III**

- Re-evaluation with isokinetic strength evaluation; assessment of SSHR for 50 reps & assessment of 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 was noted. These patients were offered operative treatment.