

# Achilles tendon repair rehabilitation

## CAST

### Stage 1: Weeks 0-2 (Equinus cast)

- Non weight bearing using crutches.
- Try to keep hips, knees and toes moving fully to prevent stiffness.
- No physiotherapy or range of movement exercises for ankle.
- Rest and elevate leg as much as possible.
- Pain control.

## VACOPED BOOT

### Stage 2: Week 2-4 (Vacoped boot locked 30° plantar flexion)

- Fully weight bear in the Vacoped boot with crutches as comfort allows.
- Vacoped boot to be worn at all times.
- Try to keep hips, knees and toes moving fully to prevent stiffness.
- Rest and elevate leg as much as possible.

### Stage 3: Week 4-6 (Dynamised Vacoped boot 15-30°):

- Fully weight bear in the Vacoped boot, using crutches as required for balance.
- The Vacoped boot should be worn at all times, except for hygiene. *You should not put weight on your foot out of the boot at any time. If worried, leave boot on and cover with waterproof cover for showering.*
- **Start physiotherapy.** Under physiotherapy supervision:
  - Start active ankle plantar flexion only. NO dorsiflexion allowed at this stage,
  - May start low activation Compex / EMS on calf from this stage.

### Stage 4: Week 6-8 (Dynamised Vacoped boot 0-30°):

- Fully weight bear in the Vacoped boot, using crutches as required for balance.
- The Vacoped boot should be worn at all times, except for hygiene. *You should not put weight on your foot out of the boot at any time. If worried, leave boot on and cover with waterproof cover for showering.*
- Progress with physiotherapy. Under physiotherapy supervision:

- Gentle strengthening exercises with light Theraband - plantar flexion, inversion and eversion.
- **Active** dorsiflexion until gentle tension is felt in tendon (do not pull foot up past 90degree (plantigrade). **Do not** force this movement or passively pull past 90° angle.
- Proprioception / balance work to be completed **in** boot.
- Can start some strengthening work for hip and knee with the boot on e.g. using a static bike. Push with your heels and not your toes.

## WEAN OF BOOT

### Stage 5: Week 8-11

- Remove Vacoped boot and change to supportive shoe with single heel raise for 2 weeks. The boot can be worn in vulnerable environments, if necessary.
- Wean from crutches as able.
- Start gentle calf stretch in standing but do not push this into a strong stretch.
- Allow ability to dorsiflex to match the other side to return naturally.
- Continue to practice ankle movements passively and actively, avoiding excessive stretch.
- Continue active resisted plantar flexionTheraband exercises; plantar flexion to neutral (plantigrade) position. Do not push further.
- Continue to practice resisted inversion and eversion
- Can use an exercise bike (low resistance).
- Can perform seated heel raises.
- Progress walking to small up slopes and down slopes.
- Swimming and gentle stretches whilst in the water are beneficial - hydrotherapy if available.

### Stage 6: Weeks 11-16 (Wearing good supportive footwear)

- Aim to be able to have good balance control when wearing normal good supportive footwear
- Continue to progressively strengthen leg, foot and ankle.
- Aim for normal dorsiflexion range, no need to push to extreme.

## SPORT PREPARATION

### Stage 7: Weeks 16-24

- Continue to perform stretches calf muscles but do not push this beyond neutral (i.e. not on the edge of a step).
- Restoration of a normal walking pattern.

- May start jogging on a trampette, gradually progressing to jogging on flat ground with guidance.
- May progress jogging to running, including change of direction work / cutting, fast acceleration / deceleration with guidance
- Start to include sports specific rehabilitation type exercises.

**NB:** Pain after exercise should subside to a normal level by the following morning and there should be no increase in pain on a week to week basis. If the pain persists exercises should be altered to a level that allows the pain to subside to a normal level by the following morning.

## RETURNING TO SPORT

### Stage 8: Weeks >24

- Start to stretch and exercise calf beyond neutral (i.e. on edge of step)
- Can complete sports specific exercises including dynamic drills e.g. hopping, skipping.