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Achilles Tendon Repair: Post Operative Accelerated Rehabilitation Protocol

Operative Summary

The Achilles has been repaired with a very strong suture technique, so a rapid rehabilitation programme can be used.

Day of Operation (week 1)

Vacoped boot placed on leg while under anaesthetic, locked in equinus (foot pointing down, 30 degrees)

Full weight-bearing mobilization (as much weight as comfortable). (Early weight bearing has been shown to statistically improve time to return to activities including work, sports, and normal walking)

2 crutches until confident to walk without

Anaesthetic block may take up to 24 hours to wear off (you may be numb and weak from the knee down)

Regular pain relief as required (Eg. Paracetamol, Coedine and Diclofenac)

Leg Elevation and Boot Care – The First 2 Weeks Post Operatively

Elevate the ankle at the level of the chest, for 23 hours a day for 7 days (for pain relief, swelling and wound healing).

Place 2 pillows under your mattress for elevation when sleeping.

Elevation at the level of the heart, for 12 hours a day for 7 further days

Keep the boot dry.

Move toes, knee and hip

Bandage and the Dressing – After 48 hours

After 48 hours, remove the leg from the boot, taking care to keep the foot in a tip toe position.

Remove the white bandage (and gauze underneath) yourself.

A dressing will remain underneath – leave this on. There may be some blood staining on the dressing, this is normal.

You can have a light shower but wrap cling film around the dressing to aid waterproofing.

Alternatively, you may use a 'cast / bandage protector for bathing', available on-line Eg. LimbO , Bloccs

Do not have a bath until the wound has been reviewed by Mr Gordon at 2 weeks after surgery.

Do not put weight through the leg without the boot on.

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The Boot (VacOped)

The boot can be removed when seated, for bathing, but when off, no weight through foot

The boot must remain on at all other times

Sleeping - The boot must remain on during sleep until the end of the 6th week

After 2 Weeks Post Operatively (Post Operative Week 3)

Outpatient visit – Seen by Mr Gordon

Vacoped boot removed, wound inspected and stitches trimmed

Continue full weight-bearing

Start physiotherapy – at home and in outpatients (see below)

Adjustment of Vacoped Boot:

The boot will be set by Mr Gordon following the operation, while you are asleep.

Please read the instructions on how to adjust the boot (see <http://www.davidgordonortho.co.uk/wp-content/themes/drgordon/pdf/vacoped-fitting-instructions.pdf>)

At week 3 and for all subsequent weeks, only adjust the lower 'angle restrictor' using the key provided, this will allow more ankle movement in a gradual and controlled manner.

One notch on the boot equals 5 degrees.

Follow the protocol below:

Week	Vacoped Range of Motion to be Set (full weight bearing throughout)
1	30 degrees only (tip toe position only)
2	30 degrees only (tip toe position only)
3	30-25 degrees (very slight ankle movements)
4	30-20 degrees (very slight ankle movements)
5	30-15 degrees (increasing ankle movements)
6	30-10 degrees (increasing ankle movements). Change to flat sole
7	30-5 degrees (more ankle movements). Keep flat sole
8	30-0 degrees (more ankle movements). Keep flat sole

8 Weeks Post Operatively

Outpatient visit – Seen by Mr Gordon

Assessment of tendon healing, ankle motion, calf power, gait

Discard boot and into normal shoe full weight bearing

Continue physiotherapy

3 Months Post Operatively

Outpatient visit – Seen by Mr Gordon

Assessment of tendon healing, ankle motion, calf power, gait, discuss sporting aspirations

Continue physiotherapy. Start jogging

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6 Months Post Operatively

Outpatient visit – Seen by Mr Gordon

Assessment of tendon healing, ankle motion, calf power, gait, discuss sporting aspirations

Continue physiotherapy if required

Start sports requiring explosive activities

Driving

You need to be able to control the vehicle in an emergency. Can you stamp your foot down on the ground? For left sided surgery and no clutch is required, driving is probably safe at 2 weeks post operatively. For right sided surgery, driving is probably safe at 9 weeks post operatively, once in a normal shoe. If you are unsure, please ask Mr Gordon.

Return to Sport

There is a lack of evidence to recommend specific timings for returning to sport. A decision should be made with in consultation with Mr Gordon and your physiotherapist. Above timings are guidelines only.

Rehabilitation Guide for Physiotherapists

Post Operative Week 3 & 4

Soft tissue massage

Out of boot : Passive range of motion, gentle active plantar flexion, limit dorsiflexion to gravity in prone position

Exercise bike with boot on

Rehabilitation Summary. Operation occurs on first day of 'Post Operative Week 1'

Post Operative Week 5 - 8

Active plantar flexion with Theraband

Seated heel raises

Out of boot : Full plantar flexion, inversion and eversion, limit dorsiflexion to the angle of degrees set in the boot (see Rehabilitation Summary table)

Proprioception/balance, Gait re-education

Post Operative Week 9 onward (boot discarded)

Gentle weight bearing dorsiflexion stretch (lunge position)

Eccentric/Concentric loading (bilateral to single. Emphasise eccentric phase)

Single stairs

Progress to upslope and downslope

NWB aerobic exercises - e.g. cycling (push with heel, not toes).

Monitor inflammation signs and rehabilitation accordingly

Discard crutches (if still needed) when dorsiflexion 10°

3 Months Post Operatively

Jogging progressing to fast acceleration & deceleration

Directional running / cutting. Pylometrics. e.g. toe bouncing upwards / forwards /directional

Achilles Tendon Repair: Rehabilitation Protocol

Reference List

- Cetti, R., L. O. Henriksen, and K. S. Jacobsen. "A new treatment of ruptured Achilles tendons. A prospective randomized study." *Clin.Orthop.Relat Res.*308 (1994): 155-65.
- Costa, M. L., et al. "Immediate full-weight-bearing mobilisation for repaired Achilles tendon ruptures: a pilot study." *Injury* 34.11 (2003): 874-76.
- Kangas, J., et al. "Early functional treatment versus early immobilization in tension of the musculotendinous unit after Achilles rupture repair: a prospective, randomized, clinical study." *J.Trauma* 54.6 (2003): 1171-80.
- Maffulli, N., et al. "Early weightbearing and ankle mobilization after open repair of acute midsubstance tears of the achilles tendonrch this journal." *Am.J.Sports Med.* 31.5 (2003): 692-700.
- Mortensen, H. M., O. Skov, and P. E. Jensen. "Early motion of the ankle after operative treatment of a rupture of the Achilles tendon. A prospective, randomized clinical and radiographic study." *J.Bone Joint Surg.Am.* 81.7 (1999): 983-90.
- Suchak, A. A., et al. "Postoperative rehabilitation protocols for Achilles tendon ruptures: a meta-analysis." *Clin.Orthop.Relat Res.* 445 (2006): 216-21