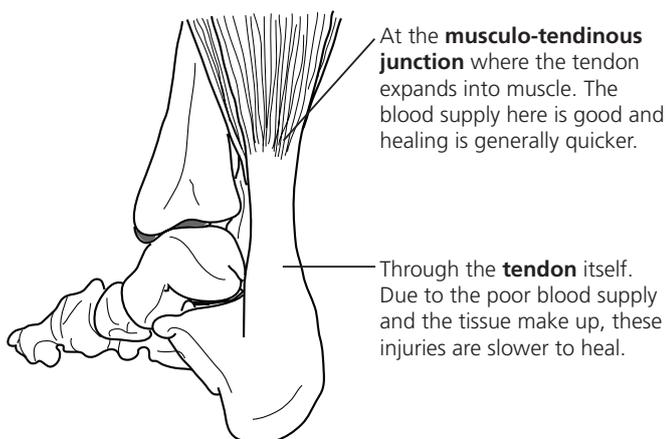


# Achilles Tendon Injuries

## Expected Management and Rehabilitation Times

### Introduction



You have injured your Achilles tendon complex. There are two main zones where injuries occur as highlighted above.

**Smoking is known to slow down the healing of Achilles tendon ruptures and wound healing in surgical repairs.**

An ultrasound scan might be requested if the clinical examination does not confirm that the tendon ends close together when the foot is in the pointed position. (This may indicate the need for surgery). An ultrasound to check the progression of healing is not generally needed in the later stages of healing.

The following gives you a guideline to the times involved and the do's and don'ts over the coming weeks.

### SURGICAL OR CONSERVATIVELY MANAGED RUPTURES

#### Week 0-2 (From day of surgery if operated on)

- Your foot and ankle will be placed in a plaster cast with the toes pointed down
- You may mobilise NON-weight bearing with crutches or frame
- You may use your toes to balance but only when in a static standing position (e.g when standing at the sink brushing your teeth or shaving).
- Your foot and ankle are often very swollen and painful during this stage

#### Week 2-4

- The plaster cast is removed and a VACOped boot fitted with your foot in the same position as it was in the plaster.
- Due to the design of the VACOped boot, you should now be able to weight bear and can wean off walking aids as comfortable, although you should still use them when outside your home. Try to mobilise as much as you can in the boot and when doing so it is important that you place weight through the boot.
- Wear the boot at day and night, removing only for careful washing/showering, ideally when sitting down.
- Many people start returning to work at this stage.

- If you have been on anti-coagulation injections/medication you should continue with this until you are mobile indoors without walking aids, or until the end of your supply.

## Week 4-6 (Bring crutches to appointment)

- The boot will be adjusted to allow a small amount of movement at the ankle from 15° through to 30° of plantar flexion (toes fully pointed downwards).
- Your mobility should continue to improve.
- You can remove the boot at night, but DO NOT weight bear on your foot when out of the boot. Therefore please remember to wear your boot if going to the bathroom during the night.
- Moisturise/massage over the scar if you have one, or around the 'lumpy' area of the rupture. Use any unfragranced moisturiser cream to do this.

## Week 6 (Bring crutches to appointment)

- The boot will be adjusted to allow a greater amount of movement. The boot should allow your ankle to move from 0° (right angle / neutral position) through to 30° of plantar flexion.
- Start Theraband exercises as shown by the Physiotherapy team, do as many of these as you are able. Continue these even if you feel it is having little effect.
- You will receive education on how to adjust your boot at week 8 (see below)
- You will be issued 2 heel pads to use from week 9 as advised by your Physiotherapist



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## Week 9 (at home)

When indoors start using the heel pads in comfortable flat shoes/ trainers but continue to wear your boot outdoors for protection.

## Week 10 (Appointment in department, please bring your shoe!)

- Discard the VACOped boot and use heel pads indoors and outdoors for one week, then only when outdoors for a further 2-3 weeks.
- You should be able to drive within a week of being out of the boot and in normal footwear - BUT YOU HAVE TO BE ABLE TO DO AN EMERGENCY STOP!
- Increase exercise tolerance with gentle and frequent walks, cycling or swimming.
- It is ok to make the calf ache, but you should rest before carrying on. Change your activity frequently to avoid fatigue and rest when and if you get tired or you experience an ache /'burning' feeling around the injury site.
- Local physiotherapy will be arranged if required and this is expected to start 1 month after you stop wearing the boot.

SPECIFIC EXERCISES to start from week 10

Balance – holding on to something stable initially (e.g kitchen worktop), practise standing on the affected leg for 10-15 seconds. Decrease support and increase the time balancing on your affected leg gradually by 5 seconds every other day.



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Strength – standing on both feet, practise rising up onto your toes. Initially you will favour your unaffected side, but gradually increase the repetitions and the weight going through the affected leg as you get stronger. DO NOT ATTEMPT THIS EXERCISE BY STANDING ONLY ON YOUR AFFECTED LEG.



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The more exercises you do, the quicker the strength returns in your calf.

## Week 8 (at home)

- Adjust your boot to allow 'step through' walking. This is the -1 position as indicated on the boot.
- You may start gentle swimming without the boot on but only if you are able to get in and out of the pool safely without using the rung ladders. Do not push off from the side of the pool.

## Week 12-16

- Start to increase your exercise tolerance. High-impact, explosive activities such as racquet sports and contact sports such as football and rugby should be avoided.

The following activities are safe to introduce:

- Swimming
- Walking
- Static bike or flat road cycling (not strenuous)
- Ease into aerobic gym work as comfortable including cross trainer, walking on treadmill and stepper
- Ease into gentle weights but avoid strenuous calf work as in the leg press/rowing machine
- Running/jogging is not advisable for 4-5 months post injury, this needs to be built up gradually and slowly.

It is alright to make the calf ache, but you should rest and let the ache settle before carrying on. Change your activity frequently to avoid fatigue and rest when and if you get tired or experience an ache or 'burning' sensation around the injury site

### **FOR AT LEAST 6 MONTHS AFTER THIS INJURY DUE TO THE POTENTIAL RISK OF A RE-RUPTURE**

It is **NOT** advisable to:

- Play explosive sports such as squash/badminton
- Do heavy resisted loading (heavy weight training) of your lower legs or use rowing machine
- Go up and down rung ladders
- Horse ride (due to downward position of heel)
- Do loaded passive stretching of the calf (heel hangs on a step)

## MUSCULO-TENDINOUS TEARS/ PARTIAL TEARS

### **Week 0-2 (From day when you have your first plaster)**

- Your foot and ankle will be placed in a plaster cast with the toes pointed down
- You may mobilise NON-weight bearing with crutches or frame
- You may use your toes to balance but only when in a static standing position (e.g. when standing at the sink brushing your teeth or shaving).
- Your foot and ankle are often very swollen and painful during this stage

### **Week 2-4**

- The plaster cast is removed and a VACOped boot fitted with your foot in the same position as it was in the plaster.
- Due to the design of the VACOped boot, you should now be able to weight bear and can wean off walking aids as comfortable, although you should still use them when outside your home. Try to mobilise as much as you can in the boot and when doing so it is important that you place weight through the boot.
- Wear the boot at day and night, removing only for careful washing/showering, ideally when sitting down.
- Many people start returning to work at this stage.
- If you have been on anti-coagulation injections/medication you should continue with this until you are mobile indoors without walking aids, or until the end of your supply.

### **Week 4-6 (Bring crutches to appointment)**

- The boot will be adjusted to allow a small amount of movement at the ankle from 15° through to 30° of plantar flexion (toes fully pointed downwards).
- Your mobility should continue to improve.

- You can remove the boot at night, but DO NOT weight bear on your foot when out of the boot. Therefore please remember to wear your boot if going to the bathroom during the night.

## Week 6 (Bring crutches to appointment)

- The boot will be adjusted to allow a greater amount of movement. The boot should allow your ankle to move from 0° (right angle / neutral position) through to 30° of plantar flexion.

- Start Theraband exercises as shown by the Physiotherapy team, do as many of these as you are able. Continue these even if you feel it is having little effect.



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- You will receive education on how to adjust your boot at week 7 (see on next page)
- You may start gentle swimming without the boot on but only if you are able to get in and out of the pool safely without using the rung ladders. Do not push off from the side of the pool

## Week 7 (at home)

- Adjust boot to allow 'step through' walking. This is the -1 position as indicated on the boot.



## Week 8 (Appointment in department)

- Discard the VACoped boot and use heel pads (issued by your Physiotherapist) indoors and outdoors for 2 weeks, then outdoors for a further 2-3 weeks whilst returning to normal function.
- You should be able to drive within a week of being out of the boot and in normal footwear - BUT YOU HAVE TO BE ABLE TO DO AN EMERGENCY STOP!

- Local physiotherapy will be arranged if required and this is expected to start 1 month after you stop wearing the boot.
- You can start SPECIFIC EXERCISES from week 10 (see Week 10 of surgical and conservative management of ruptures on page 4 of this booklet)

## Week 10

- Start to increase your exercise tolerance. High-impact, explosive activities such as racquet sports and contact sports such as football and rugby should be avoided.

The following activities are safe to introduce:

- Swimming
- Walking
- Static bike or flat road cycling (not strenuous)
- Ease into aerobic gym work as comfortable including cross trainer, walking on treadmill and stepper
- Ease into gentle weights but avoid strenuous calf work as in the leg press/rowing machine
- Running/jogging is not advisable for 4-5 months post injury
- It is alright to make the calf ache, but you should rest and let the ache settle before carrying on. Change your activity frequently to avoid fatigue and rest when and if you get tired or experience an ache or 'burning' sensation around the injury site.

## RISK OF DEEP VEIN THROMBOSIS

The nature of your injury raises the risk of developing a deep vein thrombosis (DVT).

The initial management of your Achilles tendon injury requires you to be in a plaster cast and to avoid weight bearing, both of these are also risk factors for DVT.

Symptoms of DVT in the leg are:

- Throbbing or cramping pain in 1 leg (rarely both legs), usually in the calf or thigh
- Swelling in 1 leg (rarely both legs)

- Warm skin around the painful area
- Red or darkened skin around the painful area
- Swollen veins that are hard or sore when you touch them.

The best way to prevent DVTs is to weight bear when you are mobilising, keep well hydrated and to take anticoagulant medications if you have been prescribed them.

Injuries to the Achilles tendon present with similar symptoms to DVT so it is difficult to know if you have one. If you have any concerns, get checked out at your nearest Walk-In centre or make an appointment with your GP.

The Trust cannot accept any responsibility for the accuracy of the information given if the leaflet is not used by RD&E staff undertaking procedures at the RD&E hospitals.

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