

Conservative management of Achilles tendon rupture in VACOped boot

Patient guide

If you need this leaflet in a different language or accessible format please speak to a member of staff who can arrange it for you.

اگر به این بروشور به زبان دیگر یا در قالب دسترس پذیر نیاز دارید، لطفاً با یکی از کارکنان صحبت کنید تا آن را برای شما تهیه کند.

Jeśli niniejsza ulotka ma być dostępna w innym języku lub formacie, proszę skontaktować się z członkiem personelu, który ją dla Państwa przygotowuje.

Dacă aveți nevoie de această broșură într-o altă limbă sau într-un format accesibil, vă rog să discutați cu un membru al personalului să se ocupe de acest lucru pentru dumneavoastră

如果您需要本传单的其他语言版本或无障碍格式，请联系工作人员为您安排。

إذا احتجت إلى هذه النشرة بلغة أخرى، أو بتنسيق يسهل الوصول إليه، يرجى التحدث إلى أحد الموظفين لترتيب ذلك لك.

This leaflet is designed to give you an outline of how your rehabilitation will progress as you recover from your Achilles tendon rupture.

What is an Achilles tendon rupture?

It is a tear of the tendon at the back of your ankle, which connects your calf muscle to your heel bone.

When this tendon is torn, it affects your walking.

For the tendon to heal properly, the damaged ends need to be brought close together.

Your surgeon will discuss with you in clinic whether this can be achieved without an operation.

If it is decided to treat you without an operation, you will be placed into a special boot.

To bring the tendon ends together your foot needs to point down in the boot (equinus position) initially.

Gradually as the tendon heals, your boot position will be altered until your foot is flat to the ground in the boot.

You will need to use crutches or a frame (at least for the first few weeks).

Treatment with the boot usually takes about 8-10 weeks.

Full recovery can take up to a year, so you need to be aware and sensible about your affected leg, follow the advice from the professionals looking after you and do not push yourself too much, as there is a risk for your Achilles tendon to re-rupture.

Care while in the boot

- You are encouraged to weight bear in the boot. This helps to reduce the risk of developing a blood clot in your leg.
- You will usually need daily blood thinning injections, you will be shown how to do these yourself before leaving hospital. If you are on other medications that thin your blood the injections may not be required, your doctor will discuss this with you.
- These injections need to be given at the same time each day. It is important that you have enough injections to see you through to your next appointment, please make sure you have the prescription before leaving hospital.
- Your boot should be worn at all times, including in bed, to ensure the tendon is protected. However, it is important to look after your skin. You will be shown how to carefully remove and replace the boot, to allow for skin inspection and hygiene.
- If your boot is rubbing on your skin, you can place a skin plaster on the affected area.
- Please raise your foot when at rest and keep unaffected joints moving. This helps to reduce swelling and prevent stiffness.
- Make sure you pump up your boot every morning.

Appointments

When attending any appointments, bring your crutches and all the spare parts for your boot (ie the key, a spare liner and the soles).

When can I drive?

You should not drive while you are being treated in the boot. You will not be able to drive for about 10 weeks. When you have finished your boot treatment and are back in your own shoes, you will need to be happy you can safely do an emergency stop before driving.

When can I return to sport?

Sports that involve jogging or running should not be undertaken until 6-8 months after your injury.

Useful video links

For a reminder of how to put the boot on follow:

<https://youtu.be/of9Elg-FzFc?si=PswTkjAkooUI7RWP>

Or google search VACOped: Application for VACOped video.

For hygiene purposes the fabric liner can be changed.

For a reminder of how to change the cushion liner follow:

<https://www.youtube.com/watch?v=xEdDyloIKg4>

Or google search VACOped: Changing the cushion liner video

Treatment programme

Date of injury:

Week		Position of window on back of boot
1	Accident and Emergency into equinus plaster - Non Weightbearing	
2	Following first fracture clinic review	3
3	Into VACOped boot locked at 30 degrees	
4	Wedge sole on boot Weightbear as tolerates with crutches	
5	Boot to allow 15-30 degrees range of motion	1.5
6	Wedge sole on boot Weightbear as tolerates with or without crutches	
7	Boot to allow 0-30 degrees range of motion	0
8	Flat sole on boot Full weightbearing	
9+	Wean out of boot indoors, wear outdoors first week Full weightbearing	

Your key boot adjustment dates are:

	Date for boot adjustment	Adjustment needed
Day 29	**	Bottom button moved until window at 1.5 Keep wedge sole Boot now moves 15-30 degrees R.O.M.
Day 43	**	Bottom button moved until window at 0 Change to flat sole Boot 0-30 degrees R.O.M.

**Your doctor will fill in the dates for your boot adjustments to be made

Your treatment in the boot

Up to day 28 (the first 4 weeks) in the boot

When you start being treated with a VACOPed boot:

- The boot will be locked with your foot pointing down at 30° (position 3 on the back of the boot) and fitted with a wedged sole.
- The boot must be worn **at all times**.
- You can weight bear with crutches.
- Your leg should be raised above heart level as much as possible at rest.
- The **sole** of the boot can be removed overnight but must be put back on before putting any weight through the leg.
- Do **not** get the boot wet – you can purchase covers to protect the boot whilst showering
- You will be shown how to use the boot. You will receive a spare liner so that you can change and wash the liner if required.
- You may start the exercises on pages 9 – 11.

The healing of your Achilles tendon can take a long time and it is normal to get frustrated. While you are recovering, there are some things you can do to help.

We suggest :-

- stopping smoking (smoking affects your circulation and how you heal)
- eat a healthy diet
- drink plenty of fluids
- stay as mobile as possible

Day 29

Your boot now needs to be adjusted to give you a small range of movement (15° to 30°). This can be done by a member of our team or you can do this yourself if you have been shown how to do it by a member of staff and are happy that you can.

Below is a reminder of how to do this (you can also refer to the VACOped user guide). If you do not feel comfortable adjusting the boot, or have any difficulties please contact the plaster room staff.

You should only change the boot position at the time points you have been advised and as directed, otherwise you may affect the healing of your tendon.

Day 29 Changing the boot position

The buttons at the back of the boot allow the boot position to be changed, to allow some ankle movement. When you look at your boot to start with, it will be locked with the toes pointing 30 degrees downwards.

This means that the buttons at the back will be in the above position (Image A) with the number 3 showing in the window.

At the end of 4 weeks from injury, the bottom blue button (arrowed in Image A) needs to be unlocked and moved downwards.

You will need the key (Image B), which is clipped onto the back of the boot, to do this.

Image A- starting position



Image B - key



Insert the key into the vertical slots in the bottom button (Image C) and rotate the key clockwise 90 degrees, so that the slot is horizontal (Image D). This unlocks the button and allows the bottom button to slide.

Image C - locked



Image D - unlocked

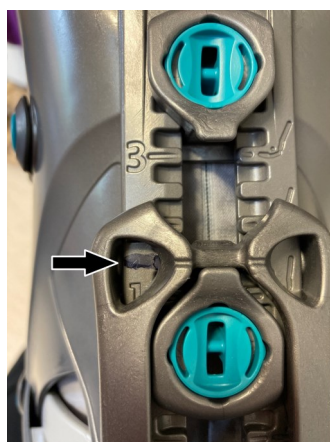


Move the bottom button down until the window on the back of the boot is at the 1.5 notch level (this is not numbered but is the notch halfway between notch 2 and notch 1). Hold the window still at this position and lock the bottom button in this position, by turning the key back to vertical.

The button should now be fixed as Image E (in the image a black arrow line has been added to show the 1.5 mark).

Do **not** move the top button. The boot will now allow your ankle to move, through a small range whilst still pointing down.

Image E



You can now gently bend your ankle up and down whilst wearing your boot. Your ankle may feel tight, do not force the movement but gently start to get your ankle moving again.

See page 12 for exercises to start.

You should **still remain in the boot day and night**.

You can put as much weight as you can do comfortably on the leg in the boot when walking.

Day 43 – Second change in boot position

Your boot needs to be altered again, to allow more movement of your ankle and to bring your foot flat to the floor.

To adjust the boot movement, you will need to unlock and slide the **lower button** down again. Move the button down until the window is over the zero position.

Lock the button by turning the slot to vertical (Image F).

Do **not** move the top button.

Image F



Day 43 – Changing the sole

You also need to change the sole of the boot, from the wedge sole attached to the flat sole.

This is where you will notice the biggest difference when walking in the boot.

To change the sole, press the small grey buttons on either side of the boot (arrow on Image G) . With the buttons pressed, the wedge sole can be slid off.

Replace this with the flatter sole which will slide on and click into place (Image H).

Image G



Image H



You will be referred for physiotherapy to begin after week 8.

Day 57 onwards (9 weeks post injury)

From week 9 you can begin to wean out of the boot. For the first week just remove the boot around the home and still use it for outside walking, after this you can begin walking outside without the boot.

When you are walking in your own shoes, use the heel raise insole provided for the first 6 weeks.

Caution: In the first 12 weeks after your injury, your healing tendon will be at its weakest. It is therefore essential that you do not try to do too much too soon.

Be very careful during the initial weeks out of the boot, particularly if you are on uneven ground and take care not to trip or stumble to avoid re-rupturing the tendon.

After 12 weeks you can gradually return to swimming and cycling to help increase your fitness.

Exercises that you can start yourself

First few days after injury

At this stage you can wiggle your toes: It is important to keep your toes moving, so every two to three hours practice wiggling and spreading your toes.

From day 15 onwards (week 3)

- You should start quadriceps (thigh muscle) strengthening exercises at home.
- There are several exercises you can start in the third week.
- These exercises will help keep your leg strong

Exercise 1: Static quadriceps exercise

Either sitting or lying down, tighten the muscles on the front of your thigh by pushing the back of your knee down into the bed (see figure 1).

- Keep your leg straight on a flat surface.
- Hold for 5 to 10 seconds, then relax.



Figure 1

Exercise 2: Knee straightening exercise

Lie down and place a rolled towel under your knee for support (see figure 2).

- Tighten your thigh muscle and lift your foot up to straighten your knee (see figure 3).
- Keep your knee on the towel at all times.
- Hold for 5 to 10 seconds, then relax.



Figure 2

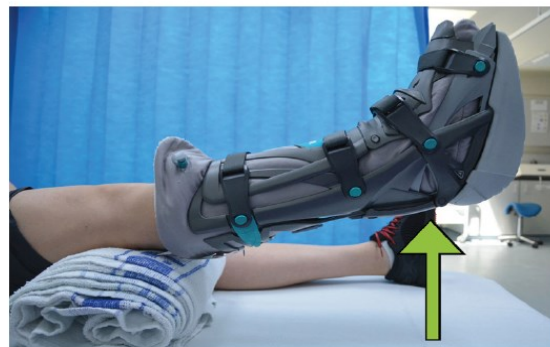


Figure 3

Exercise 3: Straight leg raise

With your leg straight on a flat surface, tighten your thigh muscles to hold your knee straight and lift your leg up (see figure 5).

Aim to lift your leg 30 to 40cm off the surface then lower it down gently.

Keep your knee straight at all times.



Figure 4

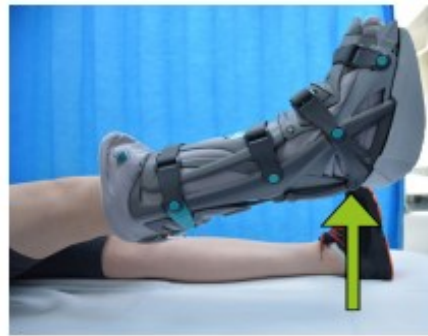


Figure 5

Exercise 4: Seated knee extension exercise

Sitting down with your legs hanging over the edge of a bed or chair (see figure 6), raise your foot until you straighten your leg (see figure 7).

Hold for 5 to 10 seconds then lower it down gently.



Figure 6



Figure 7

Exercise 5: Knee bend exercise

- Lay flat on your front (see figure 8).
- Slowly bend your knee up to 90° and lower it back down again (see figure 9).
- If you find this too easy, speak to your physiotherapist as they can make this exercise harder by adding a resistance band.



Figure 8



Figure 9

Exercise 6: Hip stretch exercise

- Lay on your front (see figure 10).
- Tighten your bottom muscles and lift your thigh up off the floor (see figure 11).
- Keep your knee straight at all times.
- Do not allow your pelvis to lift off the floor. Hold for 5 to 10 seconds then lower down gently.



Figure 10



Figure 11

Exercise 7: Standing knee bend

Stand up and hold on to something sturdy for support (for example your kitchen counter).

- Make sure you keep your back straight with every exercise.
- Stand with both legs straight and together.
- Bend your knee, bringing your foot up behind you (see figure 12).
- Keep your hips straight and your knees together.
- Relax back down again and repeat.

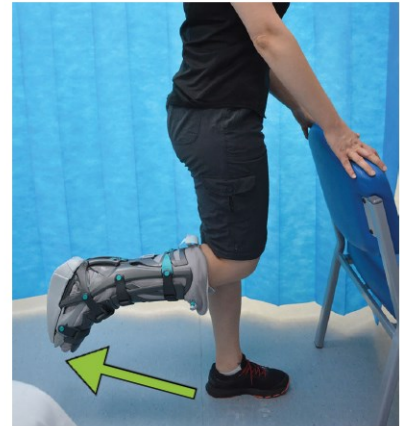


Figure 12

Exercise 8: Standing hip side lift

- Standing up tall with your feet together, bring your leg out to the side whilst keeping your knee straight (see figure 13).
- Keep your body straight, do not lean to the side as you lift your leg.
- Gently lower your leg back down again.
- If too easy, progress to side lying (see next exercise).



Figure 13

Exercise 9: Lying hip side lift

- Laying on your side, lift your top leg up towards the ceiling (see figure 14).
- Keep your knee straight at all times.
- Your hip should be in line with your knee and ankle.
- Do not allow your hips to roll back as you lift your leg.



Figure 14

From day 29 (week 5)

Ankle range of movement. You can bend your ankle up and down in the boot (see figure 15). To start you may find this most comfortable when laying on your front with your foot hanging over the edge of the bed (see figure 16)



Figure 15

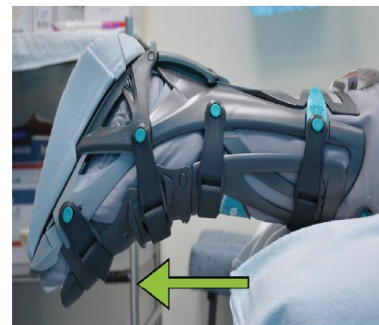


Figure 16

From day 43 (week 7)

You should have had an appointment with your physiotherapist, who will help to guide you with your ongoing rehabilitation.

Active ankle range of movement

You can now come out of your boot to carry out the following gentle range of movement exercises for your ankle.

Do not walk on the foot when the boot is removed. These exercises should only be done if you are feeling no pain while doing them.

Aim to complete 10 repetitions of each exercise, three times a day.

Replace your boot after doing the exercises.

Active plantar flexion (pointing your toes)

Caution: when bending your ankle up and down, **do not** bend your ankle up past neutral position (see figure 17), we do not want to stretch your Achilles tendon at this stage.

The tendon is still weak at this time and stretching it could result in elongation (over-stretching) or re-rupture.

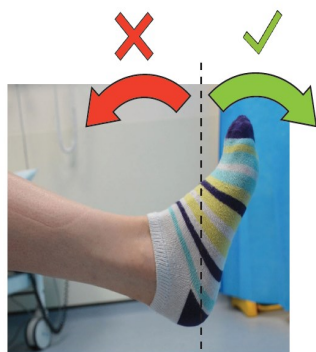


Figure 17



Figure 18

Week 9 and beyond

Your exercises will progress to strengthen your leg and improve your balance. Over the next three to nine months you will work closely with your physiotherapist to achieve your goals, whether that is performing day to day tasks or returning to sport.

For the first 12 weeks after your injury, your healing tendon is at its weakest. It is therefore essential that you do not try to do too much too soon.

If you have any concerns or queries, please discuss them with your physiotherapist.

After 12 weeks you can gradually return to swimming and cycling, to help increase your fitness.

Sports that involve jogging or running should not be undertaken until 6-8 months after your injury.

Useful contact numbers

Plaster room

If you have issues with your boot fitting or adjustment, please contact the plaster room staff who will be able to assist you.

Monday – Friday

08.30 - 17.00

Tel:

01704 704571

Physiotherapy department

Week days tel:

01704 704962 or

01704 704150

Follow up clinic appointments

Week days tel:

01695 656680

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