



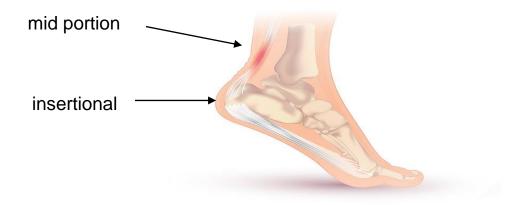
Trauma and Orthopaedics

Achilles tendinopathy

What is the Achilles tendon?

The Achilles tendon is one of the largest and strongest tendons in the body. It attaches the muscles that point your foot downwards (soleus and gastrocnemius) to the back of your heel bone (calcaneus).

Your Achilles tendon is important in the function of the foot. It propels you forward when you walk and run.



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What is Achilles tendinopathy?

Achilles tendinopathy is a common condition that happens when the Achilles tendon becomes painful. This can happen for many different reasons. The main reasons are tendon degeneration and tendon overload.



Common symptoms include:

- pain felt in the tendon
- stiffness when moving after periods of being inactive
- point tenderness in the tendon or where it attaches to the heel bone.
- swelling of the tendon

Causes of Achilles tendinopathy

- Tight muscles around the ankle and/or stiff joints around the ankle
- Certain foot postures make it more common either high arched or low arched
- Sudden changes or increases in activity levels
- Weakness in the muscles that point the foot downwards
- Health related issues such as obesity, high blood pressure (hypertension), hyperlipidaemia, diabetes and sero-negative arthropathies
- More common in middle-aged people
- More common in men

Treatment

- Activity modification you must reduce what causes your symptoms to get worse
- Advice from your doctor or pharmacist, or appropriate medication
- Supportive or cushioned footwear, or orthotics, to support the shape of your foot
- A heel pad may help if your pain is where the tendon attaches to the bone
- Stretches to lengthen your calf muscles and exercises to strengthen your calf muscles. Your physiotherapist will advise you on what exercises to do and when to do them

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Achilles tendinopathy exercises

1. Calf release/massage



Sit on the floor with one leg straight and your arms behind you.

Position the ball or roller under the calf.

Roll over to massage the area.

Do this for 2 to 3 mins, up to 3 times a day.

2. Ankle range of movement



Stand beside a chair and place your affected foot on the chair as shown.

Press on you heel to increase the stretch and maintain the position.

Hold for 20 seconds. Relax and repeat.

Try to do this 4 times a day.

3. Calf stretch



Lie on your back. Place a belt or towel around your foot and hold it with both hands. Pull the towel up slowly until you feel a stretch in your calf. Keep your foot relaxed at all times.

Maintain this position for 10 seconds, then relax.

Repeat 6 to 8 times.

4. Calf stretch standing



Stand and place your injured leg behind you. Keep your heel on the ground, knee straight and both feet facing forwards.

Slowly bend your front knee forwards whilst keeping your back knee locked straight and your heel touching the floor.

You should feel a stretch in the calf muscle of your back leg.

Hold stretch for 10 seconds. Repeat 6 to 8 times, up to 5 times per day.

If your foot falls flat, or arch drops towards the floor, when lunging forwards, try placing a small block/book lengthways under the inside half of your back foot. This will cause your ankle to roll out slightly. You should then stretch in this position.

5. Soleus stretch



Place a belt or dressing gown cord around the ball of your foot.

Hold the cord quite low down, lean back and pull your foot towards you as far as you can until you feel a stretch at back of your leg/calf.

Hold for 10 seconds. Repeat 6 to 8 times, up to 5 times per day.

6. Soleus stretch standing



Stand in front of a step and put the foot to be stretched on it.

Keep the foot facing forwards. Lean onto handrails or walls for support if you can.

With the leg on the step, bend the knee forward without lifting the heel off the step. Feel a stretch in the calf/lower part at the back of the leg.

Hold for 10 seconds. Repeat 6 to 8 times. Try to do this 2 to 5 times per day.

7. Seated calf raise





Sitting on a chair, put pressure through the ball(s) of your big toe(s) and raise your heel(s) off the floor.

Make sure your keep your toes relaxed to get a good contraction your calf.

Hold for 3 seconds and lower slowly. Aim to repeat this 20 times, then rest for 30 seconds.

Repeat this 4 times.

To progress, you can lean your elbows on your knees or push against your knees. You can also add some weights.

More exercises are on the next page.

8. Standing calf raises





Hold on to a table or kitchen counter/wall for balance.

With equal weight on each leg, push up through the ball of your big toe and lift both heels off the floor- go onto your tip toes. Keep your knees straight and do not lean forwards.

You should feel the muscle working in the top of your calf muscle.

Repeat 10 times. Try to do this 3 times per day.

Once this is easy/pain free, try to follow the structure below:

Repetitions	Rest
12 reps	2 minutes rest
10 reps	2 minutes rest
8 reps	2 minutes rest
6 reps	2 minutes rest
4 reps	2 minutes rest

Try to increase the load you lift each time as able. Adapt weight and numbers to suit you.

Your physiotherapist will advise you on how often to do these exercises, and how long for.

9. Eccentric loading



Stand on your tip toes with both feet. Transfer your weight onto your affected leg when fully on your tip toes.

Contract the calf muscle and lift your 'good' leg off the floor. Do not let your heel drop at all for 2 seconds. Then **slowly** lower your leg back down to the starting position.

Replace other foot and repeat.

Your physiotherapist will advise you how often to do these exercises, and how long for.

10. Single leg calf raises



Hold on to a table or kitchen counter/wall for balance.

Lift one leg up off the floor. Push up through the ball of your big toe and lift the heel of your other leg off the floor. Go onto your tip toes. Keep your knee straight and do not lean forwards.

You should feel the muscle work in the top of your calf muscle. Progress as per examples in **exercise 8.**

11. Double and single leg progressions

Double leg



Single leg



With the same technique as in **exercises 8 and 9**, you can complete the exercises off a step once a certain level of strength is achieved.

Do not do these exercises off a step if you have insertional tendinopathy. Only do off a step if directed by your physiotherapist. Otherwise do this on a flat surface.

Contact details

If you have any questions or concerns please contact:

Consultants' secretaries (Monday – Friday, 8am to 4.30pm)

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More information about tendinopathy can be found at www.nhs.uk

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