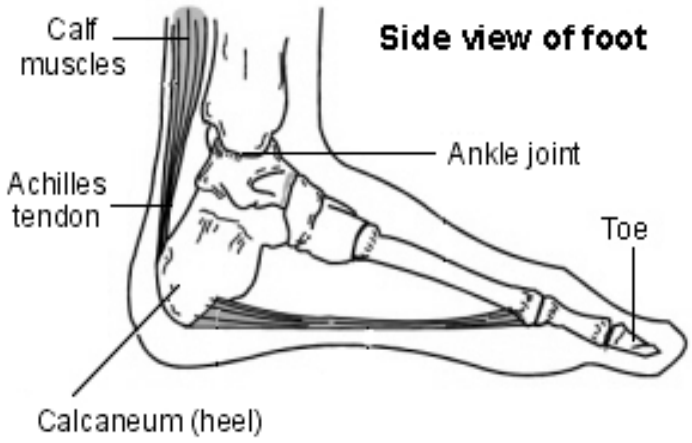
Physiotherapy information for Achilles Tendinopathy

What is Achilles Tendinopathy?

Achilles Tendinopathy is a condition that can cause pain, swelling and weakness of the Achilles Tendon. This joins your heel bone to your calf muscles. The exact cause of Achilles Tendinopathy is unknown. It is thought to be caused by repeated stress on the tendon which can lead to weakening and fraying of the tendon fibres. As the tendon tries to heal itself it can become thickened and can form nodules or a lump in the tendon.



How common is Achilles Tendinopathy?

- It is one of the most common injuries in sport and can account for approx 6-17% of all running injuries and up to 50% of injuries in elite athletes.
- However, it can also develop in 6% of nonathletic populations.
- It can predominantly affect male athletes aged 30-40 years. (*NICE, 2010*)

What are the signs and symptoms of Achilles Tendinopathy?

- Morning stiffness
- Tenderness over the Achilles tendon
- Pain on either exercise or after exercise

Many things can affect the load being put through the tendon. Age, gender, weight, diabetes, having tight or weak calf muscles, stiff joints of the ankle, knee or foot and over-exercising can all impact on your prevalence to placing increased stress on the tendon.

Initial treatment guidelines

Rest

Acute injuries require rest. This may involve reducing the level of your normal training regime or functional activities. By continuing to exercise on a painful Achilles tendon will likely make it more chronic thus becoming more difficult to treat. It is advisable to avoid any high impact activities or sports until your pain subsides. By modifying your activity, this will help to reduce pain, allow any inflammation to settle and minimise stress placed on the tendon.

Ice
During the initial stages of injury, ice treatment can be useful in managing pain and swelling. Apply a pack of frozen peas or an ice pack wrapped in a damp cloth to the tendon. Always check the skin following ice application for any skin burns.

Leave this on for no more than 10 minutes, repeat up to 4 times per day or after exercise. If symptoms continue to persist after several weeks, ice can be beneficial in minimising further tendon damage. Apply ice following any physical activity.

Pain relief

Simple analgesics such as paracetamol or Non Steroidal Anti-Inflammatory (NSAIDs) can help relieve pain. Care should be taken with NSAIDS, you may need to limit use to no more than 14 days. Prolonged use of NSAIDs may impede tissue healing long term. Please consult your GP regarding NSAIDs use.

Orthotics

The use of a heel pad can also help raise the heel therefore reducing the strain on the Achilles tendon. Further gait analysis and bespoke orthotics would be beneficial for chronic conditions.

Healing time frames

In acute injuries, symptoms can normally take 3 to 6 months to resolve. In more chronic cases, it may take longer.

Physiotherapy management

Depending on the severity and stage of the condition, physiotherapy treatment for patients with an Achilles tendinopathy is vital to hasten the healing process, to ensure an optimal outcome and reduced the likelihood of recurrence. Treatments may often involve:

- Soft Tissue techniques
- Electrotherapy
- Stretching programme
- Joint mobilisations
- Gait Analysis and Orthotics
- Taping
- Hydrotherapy
- An eccentric loading exercise training programme (see below)
- Prescribe a rehabilitation programme and return to activity plan
- Acupuncture
- Advice and education

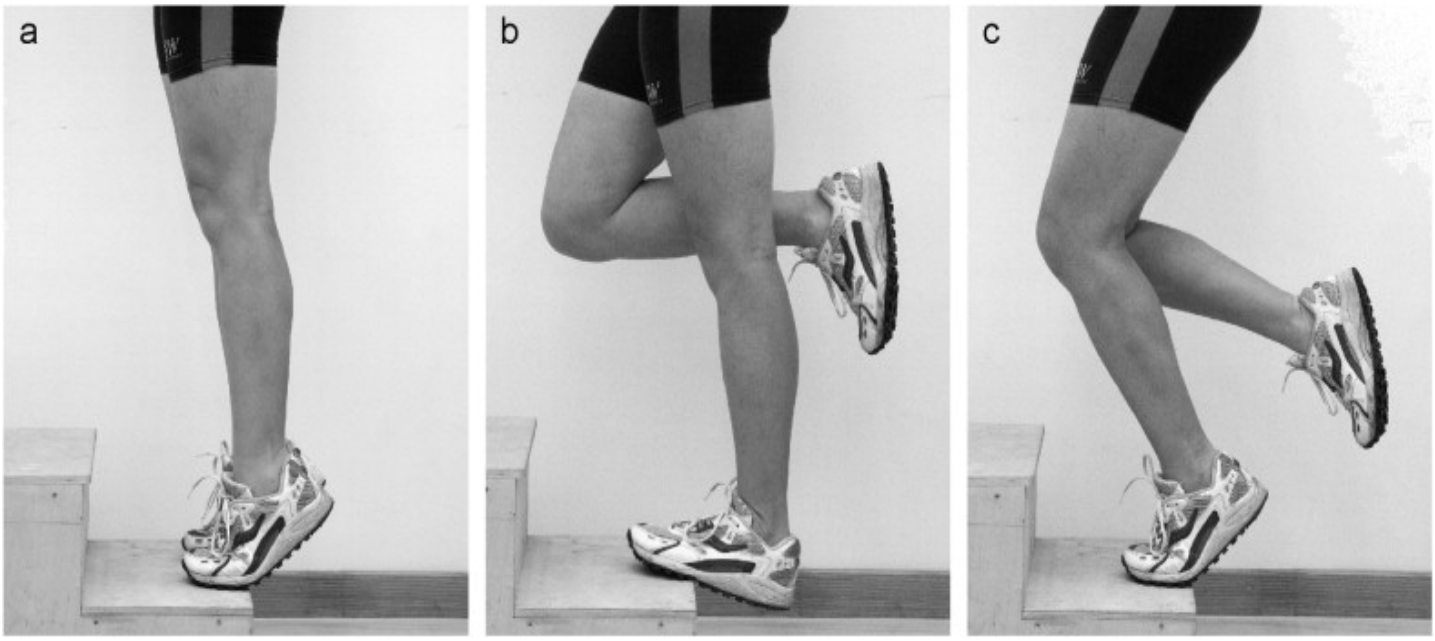
Eccentric exercise programme

Eccentric loading involves lengthening the muscle fibres as contraction occurs. Research evidence suggests that an eccentric exercise approach aims to reduce tendon thickness and promotes tissue repair. Emphasis is placed on the lowering phase of the exercise to ensure that the tendon is loaded sufficiently (*Alfredson & Cook, 2007*).

It is recommended that Eccentric Exercise Programmes are followed for a period of 12 weeks to promote optimum recovery.

It is also important to note that during an eccentric exercise programme, you may experience an increase in pain, for up to 8 weeks, but this will reduce as you continue with the exercises.

Eccentric Exercise Programme

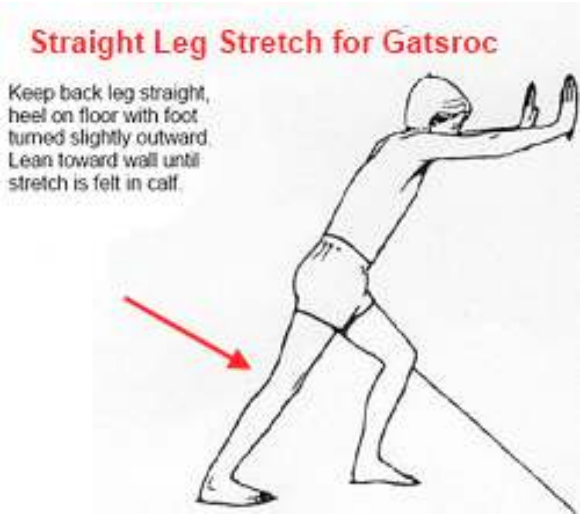


A	B	C
Stand on both feet. Use your **GOOD** leg to raise up on to your tip toes. Transfer your weight across to your **BAD** leg and slowly lower yourself down. Aim for 3 sets of 30 repetitions, 3 times a day.	Stand on both feet. Use your **GOOD** leg to raise up onto your tiptoes. Transfer your weight over onto your **BAD** leg lifting your **GOOD** leg off the step. Slowly lower yourself down. Aim for 3 sets of 30 repetitions, 3 times a day.	Stand on both feet. Use your **GOOD** leg to raise up on to your tiptoes. Transfer your weight over onto your **BAD** leg lifting your **GOOD** leg off the step. Bend your knee, slowly lower yourself down. Aim for 3 sets of 30 repetitions, 3 times a day.

Stretching Programme

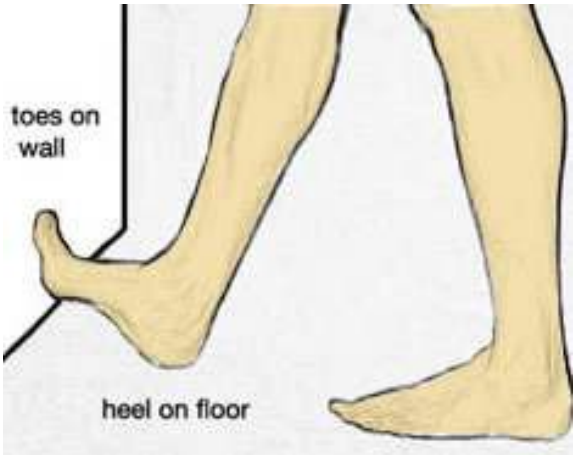
Stretch 1
Standing against a wall or chair with feet placed in a parallel position as shown with both feet facing forward.

Bend the front knee forward with knee over the toes. Keep the back leg straight with heel in contact with the floor. Lean forward until you feel a stretch down the back calf. Hold for 30 seconds.



Stretch 2
Standing in the position as detailed above. Bend the back knee slightly but still keeping the back heel in contact with the floor. Lean forwards until you feel a stretch just above the heel. Hold for 30 seconds.

Stretch 3
Place the ball of your foot up against the wall and your heel on the floor. Your back foot remains in contact with the floor. Keeping your front leg straight, lean towards wall until you feel a stretch in your calf. Hold for 30 seconds.



Consent

Although you consent for this treatment, you may at any time after that withdraw such consent. Please discuss this with your medical team.

Sources of information

For further information you can visit the NHS Choices website - www.nhs.uk/Conditions/Tendonitis/Pages/symptoms.aspx

Important information

The information in this leaflet is for guidance purposes only and is not provided to replace professional clinical advice from a qualified practitioner.

Your comments

We are always interested to hear your views about our leaflets. If you have any comments, please contact the Patient Experience Team on 01323 417400 Ext: 5860 or by email at: **esh-tr.patientexperience@nhs.net**

Hand hygiene

The trust is committed to maintaining a clean, safe environment. Hand hygiene is very important in controlling infection. Alcohol gel is widely available at the patient bedside for staff use and at the entrance of each clinical area for visitors to clean their hands before and after entering.

Other formats

If you require any of the Trust leaflets in alternative formats, such as large print or alternative languages, please contact the Equality and Human Rights Department.

Tel: 01424 755255 Ext: 2620

After reading this information are there any questions you would like to ask? Please list below and ask your nurse or doctor.

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Reference

Alfredson, H. and Cook, J. 2007. A treatment algorithm for managing Achilles tendinopathy: new treatment options. *British Journal of Sports Medicine* **41**(4), 211-216.

NICE, 2010. Achilles Tendinopathy. Clinical Knowledge Summaries. http://cks.nice.org.uk/achilles-tendinopathy#!topicsummary

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