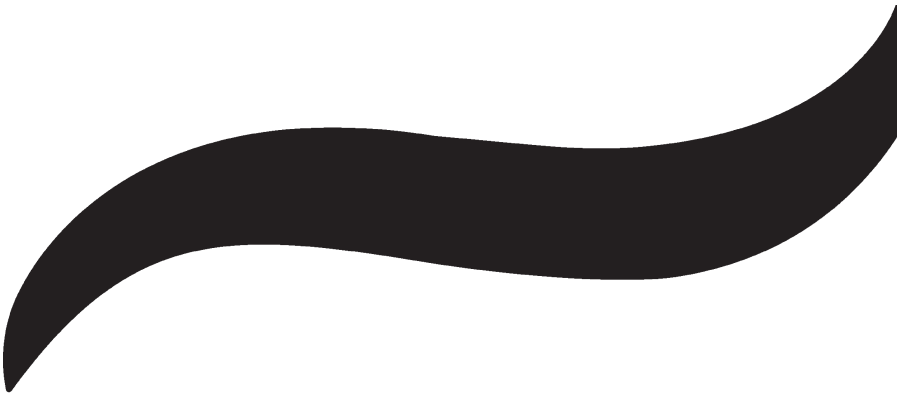
Information about

Achilles Tendinopathy

Physiotherapy

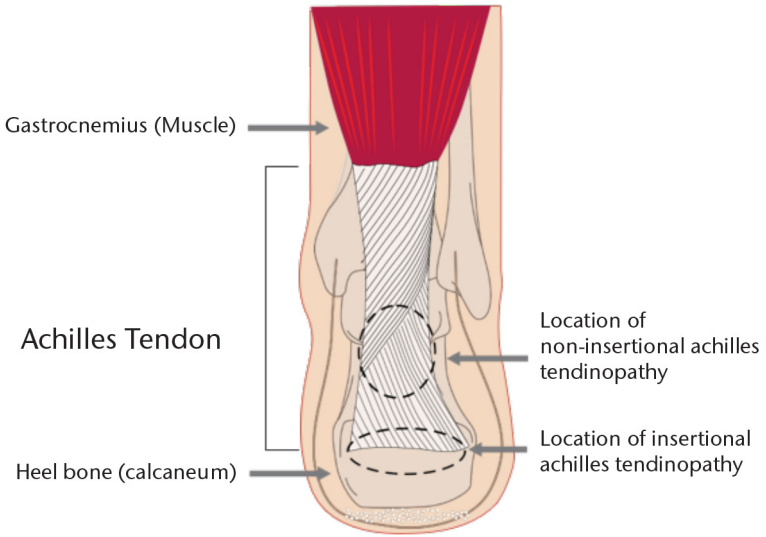


Achilles tendinopathy is a common disorder that can cause pain, stiffness, swelling and weakness of the Achilles tendon. It affects over 150,000 people within the UK every year. It is most common in people between the ages of 30 and 50 years, however it can occur at any age. It is more common in men than women and can affect both athletes and people who are not as active.

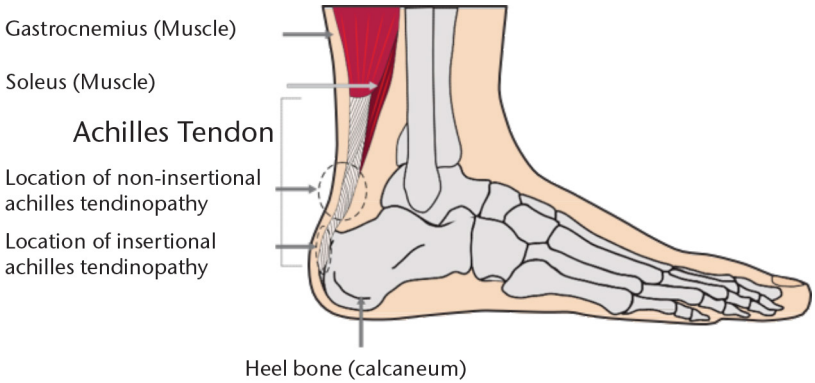
Treatment protocols for Achilles tendinopathy almost always start with basic principles and we would encourage you to consider trying some self-help treatment in the first instance before making a referral to your local Physiotherapy department.

What is the Achilles tendon?

The Achilles tendon is both the longest and the strongest tendon in the body. It connects both the gastrocnemius and soleus muscles, commonly known as the calf muscles, onto the heel bone (calcaneum). It supports and absorbs the body's weight while walking and running and can easily become overloaded or suffer from overuse resulting in pain and discomfort.



Achilles tendinopathy is usually categorized into either insertional or non-insertional pain. These require different treatments for a successful recovery.



Non-insertional achilles tendinopathy

This is the most common injury to the Achilles and affects the tendon around 2 to 6 cm above where it attaches onto the back of the heel bone.

Insertional Achilles tendinopathy:

The pain affects the tendon at the point where it attaches onto the back of the heel bone.

Tendinopathy is usually diagnosed by taking a medical history and clinical findings and rarely needs further investigation/scans.

Classic signs and symptoms:

- A gradual onset of pain
- Pain and stiffness at the back of your heel during the first steps when you get out of bed or when weight bearing after a period of inactivity or rest
- The tendon may be warm and tender to touch
- The tendon may be swollen or thickened in appearance
- There may be an audible clicking from the tendon when moving your ankle
- Pain can differ from person to person. Some people will experience pain during exercise and others will notice that their symptoms become worse after exercise or weight bearing activities

What causes achilles tendinopathy?

It is thought to be caused by repetitive stress and micro trauma to the fibers within the tendon as a result of a sudden increase in loading activities. A weakened/ deconditioned tendon can be more vulnerable to injury.

The repetitive stress and micro trauma causes the normal healing response of the soft tissue to slow which results in the injuries occurring at a rate faster than the body can heal them.

Other contributing factors

- Age. As we get older tendons become weaker
- Being overweight
- Diabetes has been linked to increased risk of developing Achilles tendinopathy

- Inflammatory conditions i.e. rheumatoid arthritis, psoriatic arthritis etc
- Weakness in the muscles within your feet or leg
- Tightness in the muscles up the backs of your legs
- Wearing unsupportive footwear such as shoes or sandals which have a low heel
- Spending long periods standing or walking, especially with a sudden increase in these activities
- Jobs that involve standing or walking on hard surfaces for long periods of time
- Sudden increase in physical activity levels - for example, recently started running
- Poor exercising/training techniques resulting in overloading/ overuse
- Not allowing adequate recovery time between activities
- Prolonged use of oral corticosteroids and antibiotics (Fluoroquinolones)
- Smoking

What can I do to help?

There is no quick or easy fix and your symptoms will not improve overnight. Most people's symptoms improve by following the recommended advice, but it may take several months to get better. It is important though that if have any of the contributing factors you make the necessary changes to these as this will help your recovery. The one person who can help you manage your symptoms is you!

Weight management as appropriate

A good indicator of whether you need to lose weight is your body mass index (BMI). You can check this here: https://www.nhs.uk/live-well/healthy-weight/bmi-calculator/

SCAN ME

If your BMI states you are overweight or obese it is likely that losing weight will reduce your symptoms. Carrying extra fat also increases your risk of heart disease, stroke, type 2 diabetes, and some cancers. Reducing your portion sizes and eating a balanced diet can be helpful in reducing weight.

If you need a little more help and feel that you would benefit from working with others in group sessions NHS Lanarkshire's Weigh to Go programme will help you become more active, eat well and lead a healthier lifestyle.

Footwear

Wearing very flat shoes will aggravate your symptoms.

A shoe that has a heel gradient of around 1½"

(4cm) or inserting a 12mm rigid heel lift into the back of your shoe, under your heel, will help to reduce some of the stress on the Achilles tendon. Always put a heel lift in both shoes even if only one tendon is painful. It is important to note that shoes that have flexible soles generally offer the foot less support and can increase the stress in the soft tissues of your foot and ankle. If your footwear has shoelaces makes sure they are tied appropriately. Avoid wearing hard, flat or unsupportive footwear.

Pain management

Analgesia also known as pain relief can be an important part in helping you manage your symptoms and allow you to stay active.

Taking the right kind of pain relief regularly allows you to move more normally and continue your usual activities without causing any damage. Pain relief won't always stop your pain completely. For this reason we are use the term pain relief (A 30-50% reduction in pain would be a good success).

Pain relievers/ anti-inflammatory medications can be used as advised by your GP or Pharmacist. If you feel the ones you usually take are not helping your pain or you have any side effects from your medicines, please speak to your GP or pharmacist.

Acute injury management

POLICE stands for: Protection, Optimal Loading, Ice, Compression and Elevation. It is used to help many injuries and conditions for the first 1 to 3 days.

- **Protection** and relative rest are advised immediately after injury for the first 1 to 3 days
- **Optimal loading** refers to having a balanced rehabilitation program which encourages early and gradual activity to improve recovery. How you progress will vary from person to person depending on the injury. It is about finding the injured areas happy place and increasing slowly and gradually
- **Ice** may be used for reducing pain and swelling. There are safety points to follow when you use ice:
- Don't ice over a numb area or open wound. If the skin is numb you won't notice if you're developing an ice burn and ice on an open wound can increase the risk of infection

- Be wary of ice burns – don't apply ice directly to the skin, wrap an ice pack in a clean, damp tea towel before applying. Avoid prolonged exposure to ice, 10-20 minutes is usually adequate

APPLICATION

- Apply crushed ice/frozen peas wrapped in a damp towel for 10-20 minutes, 2-3 times per day for the first 5-7 days post injury
- **Stop applying ice if there are any bad effects such as increase in pain or swelling or skin soreness**
- **Compression and Elevation** are helpful for reducing inflammation and swelling. This can be done by keeping your sore area raised on a pillow and compressed by wrapping a bandage around it. **Do not make the bandage too tight and do not wear tubi-grip or any compression bandage in bed at night.**

SHOULD I USE A HEAT PAD?

Heat: After 2-3 days, you may find that heat is more relaxing.

You could use a heat pad or a hot water bottle with an insulated cover on it. Make sure this is not too hot and is not directly touching your skin.

You should do this for 10 to 15 minutes, 3 to 4 times a day.

After 48 hours:

Try to weight-bear more, walking with a limp is generally normal in this phase, exercise can help relieve pain.

Do whatever you normally would and remain at work, or return to work.

Avoid sports or heavy lifting until you have less discomfort and improved movement.

If you are in pain do not try and do all your normal daily activities such as housework, at once. Break the harder jobs down into smaller time frames and do something gentler in between. Extensive walking or standing should be avoided if it aggravates your pain. It is recommended to modify activities rather than to fully stop all forms of movement or exercise so try swimming or cycling instead of walking or running.

Avoid high impact activities like running which will significantly increase load through the Achilles tendon, we would encourage you to participate in low impact activities like walking, swimming, cycling etc.

What do I do if my symptoms flare up?

Flare ups of pain are common. This is when your pain suddenly becomes very bad for a time.

Some people have a lot flare ups of pain so it is important to know how best to manage these flare ups. In most cases a pain flare-up will settle within 6 weeks.

TOP TIPS

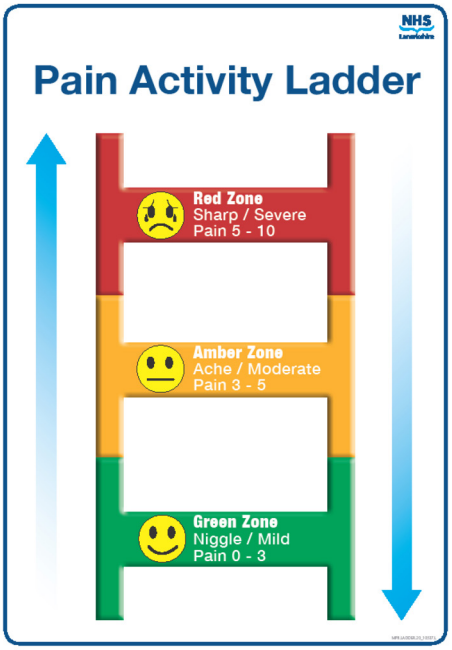
- You will likely find it helpful to rest a bit more but it is still important to keep active. This will help to avoid becoming stiff and your muscles becoming weak
- If you aim to get a balance between rest and activity it should help your pain to settle down. You may be sore at first, however, start slowly and gradually increase the amount you do
- Reduce movements or tasks that make your symptoms worse. This can help especially in the early days
- Finding positions or movements that reduce your pain can be useful

PACING AND SPACING

- Pacing and spacing can help you manage your pain better
- Pacing is the term used for breaking down an activity or task. This can be done by taking regular breaks. Prioritising daily activities can also help. This can prevent "over stimulating" your pain system
- When completing challenging tasks or activities, it may be useful to set a "baseline". This is the amount you can manage on a good or bad day without increasing your symptoms. Therefore you can plan rests and set achievable goals

Pain activity ladder?

- By following the PAIN ACTIVITY LADDER which can be seen below, you can identify activities that you would consider severely painful, moderately painful and mildly irritating and act to change your habits



- The pain scale, most often used in healthcare, measures pain from 0-10 (zero being no pain and 10 representing the worst pain you could imagine)
- If you can identify the level of pain you have, you will find out if you are in the green, amber or red zone. The best way to move down to the green zone is by pacing and spacing your activity
- When you doing your rehabilitation exercises it is often best to work within the green (and sometimes amber zones depending on what you think is an acceptable level of pain) both during the exercises and in the next 2 days. If you find yourself in the red zone you are likely pushing yourself too hard and may make the pain worse again

Strengthening exercises

The advice on strengthening differs depending on whether you have an insertional or non-insertional Achilles tendinopathy (please see start of booklet for information on which type you may have). Please begin with the early exercises and then progress to the middle and late exercises when you feel able.

1. Early strengthening

Sitting on the floor or on your bed with your legs straight out in front of you and the soles of your feet against a wall or the headboard of your bed. Gently press the ball of your foot against the wall or headboard as if pushing it away. This should be a small movement.

Hold for 5 seconds and repeating 5 to 10 times. Do this 3 times a day.

2. Early movement

In sitting or lying. Bend and straighten your ankles pointing your toes up and down. Try to keep your knees straight during the movement.

Repeat 10 times and do this 3 times a day.

3. Middle strengthening

Stand holding on to a kitchen worktop or back of a chair. Slowly push up on to your toes shifting weight forward on to your toes and then return to starting position.

Repeat this exercise 10 times and do this 3 times a day.

4. Late strengthening

As your balance and strength improves you might feel capable of standing on one leg as you lift your heel. Remember to hold on to a support. Slowly push up on to your toes and then return to the starting position.

Repeat this exercise 10 time and try this 3 times a day.

Non-insertional achilles

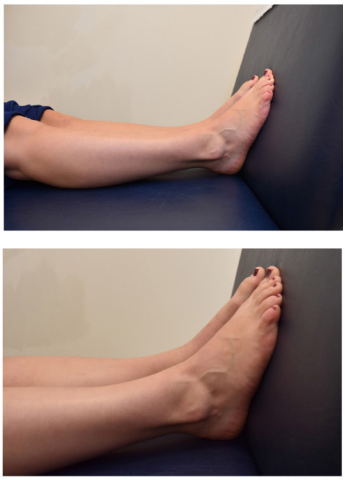
1. Early Strengthening

Sit towards the front of a chair. Keeping your feet directly underneath your knees, push up on to your toes. Once you have lifted your heels as far as you can slowly lower your heels back to the ground.

Repeat this exercise 10x and do this 3 times a day.

Once this exercise feels easy you can add a bit of resistance by leaning forward through your hands onto your knees

2. Early Strengthening



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Hold for 5 seconds and repeating 5 to 10 times. Do this 3 times a day

3. Middle Strengthening

Stand holding on to a kitchen worktop or back of a chair. Slowly push up on to your toes and then return to starting position.

Repeat this exercise 10x and do this 3 times a day

4. Late Strengthening

As your balance and strength improves you might feel capable of standing on one leg as you lift your heel. Remember to hold on to a support. Slowly push up on to your toes as high as you can, taking weight onto your toes and then return to the starting position.

Repeat this exercise 10 time and try this 3 times a day.

5. Late Strengthening

Step onto your unaffected ankle to push back up on to your toes. Stand affected leg on a step or on a thick book with your heel over the edge and your other leg raised off the floor.

Hold on to a support such as the bannister or a chair. Push up onto your toes and lift your heel as high as you can and then allow you heel to slowly lower down towards the floor off the step. Step onto your unaffected ankle to push back up on to your toes.

Repeat 10x 3 times a day.

Surgery

Most people with Achilles tendinopathy will improve with basic conservative management, however, a very small percentage of people may require surgery. You can discuss this option with your healthcare professional providing all conservative management options have been exhausted.

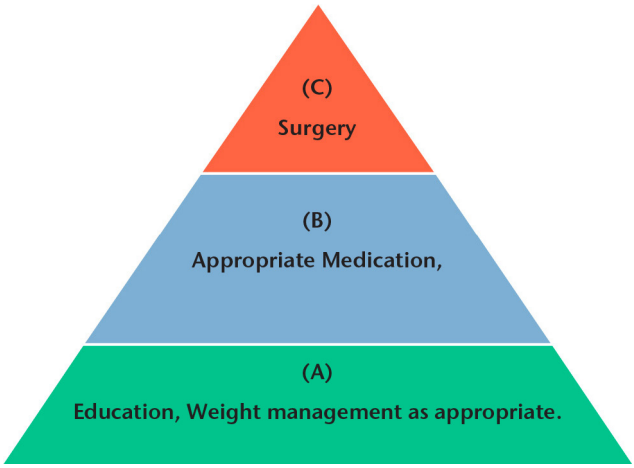
Treatment triangle

For Musculoskeletal conditions the majority of people do not require surgery and simple basic treatment is recommended:

(A) GREEN: The majority of people find the advice, physiotherapy and medicines help

(B) BLUE: A large number of people find the advice, physiotherapy and medicines help.

(C) RED: A very small number of people will need an operation.



Work

We know that staying in work or returning to work as soon as possible is good for your mental and physical health

If you have problems with activities at work, it may be helpful to ask for a workstation/workplace assessment or talk with your manager or Occupational Health Department. This can help with alterations or provision of equipment or altering your working day or tasks.

There are organisations which can support you at work or help you return to work – you can ask your physiotherapist or Occupational Therapist for information.

Smoking

Smoking can affect how your body recovers from musculoskeletal problems. If you smoke then the good news is that by stopping smoking it can improve your health in many different ways. Giving up smoking is not something you have to do on your own. You're twice as likely to stop smoking successfully if you get the right support from the NHS. There is a free NHS stop smoking service available in Lanarkshire to help you succeed: **https://www.nhslanarkshire.scot.nhs.uk/services/quit-your-way/**

Timescales

There is no overnight cure for this condition however, most people with Achilles tendinopathy symptoms improve within 6 months of following the recommended advice, however, symptoms can take up to 1 year to improve in some people.

It should be noted that it is normal to have periods of increased pain or flare ups during your recovery.

What else can be done?

Complications

A rare complication of Achilles tendinopathy can be full rupture or partial tear of the Achilles tendon. Pain is usually sudden and sharp. Sometimes a snapping sound can be felt and heard.

If you are worried about a full rupture please phone 111 or attend your local A&E.

If your pain has not started to improve after a period of 6 to 12 weeks of following the advice above, a self-referral to physiotherapy can be made on our website https://www.nhslanarkshire.scot.nhs.uk/services/physiotherapy-msk/ or via your GP.

If your symptoms continue to worsen or do not show signs of improvement after a period of 6-12 weeks of following the advice above, a self-referral to physiotherapy can be made on our website: **https://www.nhslanarkshire.scot.nhs.uk/services/physiotherapy-msk/** or via your GP.

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In collaboration with NHS Lanarkshire podiatry department.

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