Achilles Tendinopathy

Introduction

The purpose of this leaflet is to provide you with some general advice about Achilles Tendinopathy, how to manage your pain and some simple exercises.

What is Achilles Tendinopathy?

Achilles tendinopathy (tendinosis) is a common condition that affects the tendon that connects your calf muscles to the heel bone (calcaneus). The Achilles tendon is the strongest in the body, allowing you to push up the weight of your body onto your tiptoes. It therefore takes a lot of stress as you walk. Sometimes due to increased or abnormal stress to the tendon (i.e. a sudden increase of activity such as running, jumping or standing for longer periods), the tendon can become painful and swelling and stiffness can occur. Certain activities (such as running, jumping) will need to be modified to allow the tendon to settle down and heal. For most people the symptoms of Achilles tendinopathy usually clear within 3-6 months from starting your rehabilitation.

What are the symptoms Achilles Tendinopathy?

Achilles tendinopathy pain is usually felt above the heel and into the lower portion of your calf. It tends to feel very stiff in the morning which improves after a few minutes walking. The tendon itself can sometimes become swollen and tender to touch. The level of pain itself can vary from soreness after exercising to severe pain that limits exercise entirely.

How is this condition diagnosed?

Achilles tendinopathy is usually diagnosed by a health professional following assessment. Scans/x-rays are not usually needed.

What causes Achilles Tendinopathy?

The cause of Achilles tendinopathy is not yet completely understood but we know that tendinopathy occurs when a tendon is unable to adapt to the strain placed upon it. As such there are certain factors that are thought to increase your risk:

- Age: The condition is more commonly found after the age of 30.
- Gender: It is more common in men.
- Weight: Being overweight leaves you more at risk of an Achilles tendinopathy.
- Long periods on your feet i.e. walking or running results in prolonged loading of the tendon.

- Tightness and/or weakness in the calf muscles affects ankle flexibility and the ability to tolerate prolonged activity.

- Diabetes: People with Diabetes can be at an increased risk of developing Achilles tendinopathy.

- Poor lower limb alignment due to weak pelvic muscles and leg muscles can result in increased stresses on the Achilles tendon.

- Stiff joints in the foot.

- Footwear with poor cushioning/support.

- Doing exercise where you have poor lower limb balance can also increase your risk of developing Achilles tendinopathy.

**Common exercise related causes:**

- Running further than you are used to.

- Running at a higher intensity than you are used to.

- Old or poor quality footwear.

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**How can I treat my Achilles tendinopathy?**

Thankfully, Achilles tendinopathy can usually be managed through activity modification and exercise.

**Relative rest/modification of activity:**

- Although keeping active is important certain activities such as running and jumping are likely to aggravate symptoms. It is therefore advised that you reduce these activities to a level that doesn’t cause significant pain. Some mild discomfort is acceptable or change your activity (e.g. to swimming or cycling.)

**Ice therapy**

- Ice can help in reducing pain around the tendon – wrapping an ice pack in a towel and placing against the Achilles (for no more than 15-20 minutes) at regular intervals throughout the day (i.e. four times a day if possible) and after exercise.

**Footwear**

- Shoes should be supportive but not compressive around the foot, with well cushioned soles. – avoid high heels, loose fitting shoes or sandals. Sometimes an arch support, if you have flat feet, can help and can be bought in pharmacy, running shops or online.
Physiotherapy and exercise

A physiotherapist can provide you with exercises to improve strength and flexibility in your ankle.

Evidence shows that muscle strengthening can gradually improve the tendons ability to cope with load. The exercises are done in a controlled way and should help to gradually reduce pain and swelling.

This programme can take up to six months to significantly improve your symptoms but this is a guide as symptoms can improve a lot quicker than that. Unfortunately there are no 'quick fixes' for this condition.

Morning stiffness is usually the first symptom to improve however pain and discomfort on touching/squeezing the tendon is the last symptom to go.

Note that during this strengthening exercise programme you may experience an increase in pain. As long as this pain is at a low level (3-4 out of 10 on your pain scale) and as long as the pain settles within 20-30 mins, this is acceptable. Your pain will reduce as you continue with your rehabilitation.

In the early stages try and keep your ankle moving and apply the principle of relative rest (i.e. don't stop your activities but do not do the specific activities that aggravate your pain. Work within what is reasonably comfortable). Try and avoid sustained static positions. Try and move around little and often but do not weight bear for any lengthy periods that will increase your pain.

In the early stages try the following exercise this will help improve your circulation and ankle mobility:

Video

Comfortably pointing your foot away from you and back up again towards your face so you can feel a contraction in the back of the calf. Repeat this exercise 5-10 times 2-3 times a day or as able.

As Achilles tendinopathy is related to the ability of the tendon to cope with load, exercises specific to strengthening this tendon will help healing and return to activity. The following exercises are appropriate to help you to start your rehabilitation. You may experience an increase in pain. As long as this pain is at a low level (3-4 out of 10 on your pain scale) and as long as the pain settles within 20-30 mins, this is acceptable. Your pain will reduce as you continue with your rehabilitation. If one particular exercise significantly increases your pain (above 4 on your pain scale) try cutting down the number of repetitions or the load or both.

If however, a particular exercise significantly aggravates your pain (above 4 on your pain scale) and you have tried the modifications suggested, then stop that exercise and try an alternative exercise on this list that does not significantly increase your pain.

At this stage it would be useful for you to visit YouTube and watch the short video 'Load vs Capacity and Injuries' (BJSM) (www.youtube.com/watch?tv=Hrp1_v4Dr3g) which will explain the relationship between load versus capacity to help you progress through your rehabilitation programme.
START WITH EXERCISE 1(A) and 1(B). WHEN YOU CAN MANAGE TO DO EXERCISES 1(A) and 1(B) STOP THESE EXERCISES AND PROGRESS ONTO EXERCISES 2(A) and 2(B)

**Exercise 1 (A)**

**Technique:**

In a standing position (body weight should be spread 50:50 on your feet) place your hands on a chair. Then raise onto the balls of your feet slowly with some assistance from your hands if required. Hold this position for 5 secs then lower down slowly and drop your heels back down to the floor. Be guided by your pain when doing the exercise.

Repeat _______ times

**Exercise 1 (B)**

**Technique:**

In a standing position (body weight should be spread 50:50 on your feet) and your knees slightly bent and your hands on the chair. Then raise onto the balls of your feet slowly and hold this position for 5 secs then lower down slowly and drop your heels slightly below the level of the step. Be guided by your pain.

Repeat _______ times

Some discomfort is acceptable (3-4 on your pain scale). If this movement becomes easy you are improving so then take more load through your bad foot by leaning towards the painful side and taking less weight through the good leg and your hands. As things improve and you can manage Exercises 1a and 1b then move on to the single leg lift series of exercises (Exercises 2a and 2b) which apply specifically to the painful side.

**Exercise 2 A**

**Technique:**

Stand on your painful leg only.

In a standing position raise onto the balls of your feet, slowly hold this position for 5 secs then lower down slowly and drop your heels slightly below the level of the step. Be guided by your pain.

Repeat _______ times.
EXERCISE 2 B

Technique:

Stand on your painful leg with your knee slightly bent. In a standing position raise onto the balls of your feet maintaining a slightly bent knee if possible and slowly hold this position for 5 secs then lower down slowly and drop your heel slightly below the level of the step. Be guided by your pain.

Repeat _______ times.

Some discomfort is acceptable (3-4 on your pain scale). If this movement becomes easy then you are continuing to improve so take more load through your foot (e.g. some hand weights or a ruck sack with some mild weight in it) as tolerated and do the exercise.

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**General exercises**

To assist in the healing of your Achilles tendon the following exercises will help strengthen your muscles around the pelvis and in the lower limb in order to address any weaknesses throughout the lower limb/pelvis which may be contributing towards your symptoms.

**Bridge**

Lie on your back, with knees bent and feet hip-width apart.

Draw in your abdominals and tighten your buttocks. Tilt your pelvis backwards and lift your pelvis and back up one vertebrae at a time. Lift only as high as you can while maintaining the pelvis position. Lower your pelvis down in a controlled manner.

Note: Don't let your lower back arch during the lift.

Repeat _______ times.

**Squat**

Stand tall with feet slightly wider than hip-width apart. Toes pointing forward or turned a few degrees outwards. Keep your chest up and your spine and neck in a neutral position.

Squat down by sitting back and bring your arms forward. Push back up through the heels, chest up, and straighten your hips.

Note:
- Keep your hips, knees and toes aligned and don't let your lower back round.
- Keep your weight evenly on your whole foot.

Repeat _______ times.
Sit on a chair. Put a rubber exercise band around your knees.

Spread knees apart. Slowly bring knees back together.

Repeat _____ times.

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Single-leg Standing

Balance on one leg.

Remember to stand tall, with weight evenly on your foot and toes pointing forwards.

Repeat _____ times.

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Single-leg Standing on a Balance Pad

Balance on one leg on a balance pad.

Remember to stand tall, with weight evenly distributed between forefoot and heel and toes pointing forwards.

Repeat _____ times.

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For further information
Please email ghnt.newcastlegatesheadtims@nhs.net, ring on 0191 2138800 or visit our website at: www.tims.nhs.uk which provides online guidance and support on managing your musculoskeletal (MSK) condition effectively.

The NHS website also provides trusted online information and guidance on all aspects of health and healthcare to help you manage your condition and/or inform your choices about your health: www.nhs.uk.

Useful links
The Patient Advice and Liaison Service (PALS) can offer on-the-spot advice and information about the NHS. You can contact them on freephone 0800 032 02 02 or e-mail northoftynepals@nhct.nhs.uk.

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Tyneside Integrated Musculoskeletal Service
TIMS is a partnership between Newcastle upon Tyne Hospitals NHS Foundation Trust and Gateshead Health NHS Foundation Trust

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