

Information for patients

Achilles Tendinopathy



Shropshire Orthopaedic
Outreach Service 'SOOS'

What is the Achilles Tendon?

What causes achilles tendinopathy is dependent on the specific condition that exists. The Achilles tendon is found just behind and above your heel. It joins the heel bone (calcaneum) to your calf muscles. The Achilles tendon helps in bending your foot downwards at the ankle – a movement called ‘plantarflexion’.

What is Achilles tendinopathy?

Achilles tendinopathy is a condition that causes pain, swelling, stiffness and weakness of the Achilles tendon. It is thought to be caused by repeated tiny injuries (known as microtrauma) to the Achilles tendon. After each injury, the tendon does not heal completely, as should normally happen. This means over time, damage to the Achilles tendon builds up and Achilles tendinopathy can develop.

What causes Achilles tendinopathy?

A number of things can lead to repeated tiny injuries to the Achilles tendon. For example:

- Overuse of the Achilles tendon. This can be a problem for people who run regularly, dancers and for people who play a lot of tennis or other sports that involve jumping.
- Training or exercising wearing inappropriate footwear
- Making a sudden change to your training programme e.g. increasing the intensity of your training and how often you train
- Training or exercising on hard or sloped surfaces
- Taking medicines from a group called fluoroquinolones (for example, the antibiotics ciprofloxacin and ofloxacin) also have an increased risk for developing Achilles tendinopathy.

What are the symptoms of Achilles tendinopathy?

The main symptoms are pain and stiffness around the mid portion of the Achilles tendon. Pain and stiffness tend to develop gradually and are usually worse when you first wake up in the morning. Some people have pain during exercise but, in general, pain is worse after exercise.

Initial treatments for achilles tendinopathy

Rest

Rest and take time off from sporting activities or from long periods of unnecessary standing or walking.

As pain improves, you can restart exercising as your pain allows. It is thought that complete rest, if it is prolonged, can actually be worse for the injury.

Ice

Ice may be useful in the early stages of injury and may help with pain control and reduce swelling. Crushed ice in a plastic bag or a bag of frozen peas wrapped in a thin damp cloth is the most effective way of applying to the affected area. An ice pack should be applied for a minimum of 10 minutes but not longer than 30 minutes as this might damage the skin. Ice can be repeated 3 to 4 times a day if this helps to relieve the tendon pain. Gently press the ice pack on to the injured part and do not leave ice on while asleep. Do not put ice directly next to skin, as it may cause ice burn.

Do not use ice if you have poor circulation or loss of sensation e.g diabetic neuropathy.

Compression

Gentle pressure on the calf and tendon can help to reduce pain and swelling in the early stages of injury. Continual gentle pressure using a neoprene ankle sleeve can help if this feels comfortable when worn but again do not use a neoprene support if you have poor circulation or known to have compromised sensation.

Elevate

elevate feet as much as possible during the first few days of injury and then as pain improves gently increase your activity levels.

Painkillers

Painkillers such as paracetamol or ibuprofen may help to relieve pain. Ibuprofen is from a group of medicines called non-steroidal anti-inflammatory drugs (NSAIDs). However, you should not use ibuprofen or other NSAIDs for more than 7-14 days as this may possibly reduce the ability of the tendon to heal in the long term.

Please consult your GP especially if you have co-existing medical conditions such as heart, liver and kidney disease, if you are pregnant or breast feeding, if you have ever had an allergic reaction to any medication, if you regularly drink large amounts of alcohol or if you are taking other medication.

Achilles tendon exercises

Range of motion exercise:

Sit on a chair and move your foot up and down. Do this 10 to 15 times and aim to repeat 3 x times each day for 6 weeks.

Calf stretching exercise:

Stand in a walking position about 40 cm from a wall and place both hands on the wall at shoulder height and place one foot in front of the other. With the leg to be stretched straight behind you and the other leg bent in front of you, hold the stretch for a count of 30 seconds and repeat for each leg, repeating 5 times, 7 days a week for 6 weeks. Repeat the same exercise for both legs but, this time bring your back foot forward slightly so that your back knee is also slightly bent. Lean against the wall as before, keep the position, relax and then repeat 5 times, 7 days a week for 6 weeks.

Calf strengthening

Sitting heel raises:

Sit with knees at 90 degrees and feet flat on the floor. Rest a tray with some books on the tray to add some weight. Lift both heels up from the floor and slowly lower your heels to the floor. Repeat these 10 to 15 times, aiming for 3 sets each day, 7 days a week for 6 weeks.

Two-legged heel raises:

Face and place your hands on a wall for support, then lift both heels up off the floor as high as comfortably possible and slowly lower your heels back to the level of the floor. Repeat these 10 to 15 times, aiming for 3 sets each day, 7 days a week for 6 weeks.

One-legged heel raises:

Stand on both feet, facing and placing your hands again on a wall for support. Use your unaffected leg to rise up on to tiptoes. Transfer your weight across to your affected leg and lower yourself down. Repeat these 10 to 15 times, aiming for 3 sets each day, 7 days a week for 6 weeks.

Avoid moderate to severe pain. Aim for a 'discomfort level' of between 3 to 4 out of 10 and no higher. If necessary, reduce the number of repetitions and sessions and build up frequency as tendon tolerance improves.

Eccentric exercises

Once the above exercises are tolerated well and if the tendon is still symptomatic during sports or preferred thresholds of activity, the following exercises known as Eccentric (or Alfredson's exercises) can be done.

Stand on the bottom step of some stairs (facing upstairs) with your legs slightly apart and with your heels just off the end of the step. Hold the stair rail for support. Raise up on tiptoes, then, standing on the affected leg, lower your heel, keeping your knee straight. Put your good leg down before lifting your heel.

Repeat these 10 to 15 times, aiming for 2 sets each day, 7 days a week for 6 weeks again, again please keeping 'discomfort levels' no higher than 3 – 4 out of 10. Reduce the number of repetitions or sets accordingly.

Other treatments for achilles tendinopathy

For most people, the symptoms of Achilles tendinopathy usually clear within 3 – 6 months of starting conservative treatment, as described above. If after six weeks of following initial advice for Achilles tendinopathy, you are unsure your symptoms are improving, visit your GP and discuss next steps, which may include a referral.

Further treatments may include:

- 1 Progressing strength in the Achilles tendon with supervised support. With the support of a physiotherapist or podiatrist, strength in the Achilles tendon will be developed by increasing speed of movement and resistance.
- 2 Diagnostic tests – to confirm diagnosis, and to diagnose any potential co-existing conditions, which may also require attention.

- 3 Extracorporeal Shockwave therapy. This is not always available on the NHS. Special sound waves are passed through the skin to your Achilles tendon. Side-effects can include reddening of your skin and an ache in your calf afterwards. The procedure is generally safe but there is a small risk of tearing (rupturing) the Achilles tendon with this treatment.
- 4 Tendon sheath injections. These are dependent on diagnostic information as injections using e.g. corticosteroids are generally controversial for damaged tendons as steroids can increase the risk of rupture. However, some specialists may use steroids to inject around the tendon (tendon sheath) using ultrasound to guide the needle to the correct position. This is thought to have less effect on the tendon itself and be less likely to cause damage but used to help control pain.

Injections using your own blood – it is possible for a specialist to take some of your own blood (in the usual way) and inject this around your Achilles tendon. This is called autologous blood injection and the idea is that this helps to promote healing of your damaged tendon by encouraging the growth of cells involved in the healing process.

- 5 Surgery. This may be open or keyhole surgery. It may involve removing nodules or adhesions (parts of the fibres of the tendon that have stuck together) that have developed within the damaged tendon. Making a lengthways cut in the tendon to help stimulate and encourage tendon healing.

Your healthcare provider will be happy to answer any further questions you may have.

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References and additional information

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