

Achilles Tendinopathy



Exploring the what, why and how with STRIVE Sport & Exercise Medicine



What is Achilles Tendinopathy?

The Achilles tendon is the tendon that connects the calf muscles to the heel bone. The main function of these muscles is to flex the foot downwards (plantar flexion). Achilles tendinopathy is an overloading condition. Over time this leads to micro-tears in the tendon, resulting in pain and dysfunction. You may experience pain at the beginning of exercise that gets better throughout the activity, pain after the activity, and then pain in the morning. In some cases, you may also notice that you have thickening of the tendon when compared to the other side. Pain may be in the middle of the tendon or where it inserts onto the bone.



Why did I get this?

Whether you are new to exercise or well experienced, Achilles tendinopathy can develop through overloading. Overloading means exposing our body to excess loads by increasing our activity duration, intensity, or frequency without giving our body adequate time to adapt and recover. Another common contributing factor to the development of Achilles tendinopathy is a hyper-pronated foot (your foot collapses inward under load). This places significant strain on the Achilles tendon during weight bearing activities like walking, running or jumping.



How can I get better?

Two key aspects of Achilles tendinopathy rehabilitation are exercise and activity modification. Exercise is focused on progressively loading the tendon and correcting any muscular imbalances. Activity modification will initially include reducing activities that cause pain. Once adequate strength and pain control have been achieved, you can begin to gradually reintroduce your sport or exercise activities. When training, you should only adjust one of following at a time: frequency, duration, or intensity. For example, if you regularly run 5km and wish to run 6km, then you have increased your duration. The intensity and frequency of running should remain the same. For endurance training, a general rule of thumb is to increase your mileage by no more than 10-15% per week. Avoid strenuous activity (i.e. running) on consecutive days early in recovery.

4 Exercises for you

Exercise: Squat Goal: Strength



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1. First develop a "tripod" stance. Create three points of contact with the ground: your heel, the base of the first toe, and the base of the 5th toe. To learn this, you can raise your toes off the ground. This helps cue you to raise your arch and maintain the tripod stance.
 2. Now perform a squat. Use a chair or rail for support. Sit back as if you are going to sit in a chair. Maintain a tripod stance and avoid leaning forward. Lower down as tolerated, but no further than a 90 degree knee bend. Keep your knees in line with your second toes.
 3. To progress, relax your toes while maintaining the tripod stance and repeat. You can remove the chair as support as a further progression.
- Parameters:** 3 sets of 10 repetitions. Perform once per day, every day.

Exercise: Bulgarian Split Squat Goal: Strength & Balance



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1. Start in a split squat position with your rear foot elevated on a step.
 2. Before we squat we must develop a "tripod" stance. Maintain this throughout the exercise.
 3. Bend the knees to lower your body so your front knee comes to a 90 degree bend. Focus on moving straight down and avoid leaning forwards. Keep your front knee in line with your second toe.
 4. Press through your front heel to stand.
- Parameters:** 3 sets of 10 repetitions. Perform once per day, every other day.

Exercise: Heel Raise Goal: Strength



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1. Stand on both feet with your hands on a chair or table for balance.
 2. Raise on your tiptoes without bending the knees.
 3. Slowly lower under control to come back to the starting position. This should take 5 seconds.
 4. Once the above exercise is pain free, perform these on a stair so your heel can dip lower. You can also add weight in your hands. Start small and slowly increase the weight. Once pain free, you can perform single leg heel raises.
 5. Repeat this exercise with your knees slightly bent.
- Parameters:** 3 sets of 10 repetitions. Perform once per day, every other day.