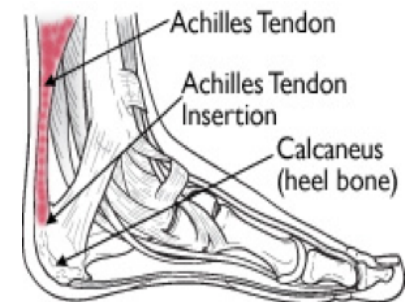


Achilles Tendon Injury

What is an Achilles tendon injury?

The Achilles tendon is the largest tendon in the body, connecting the calf muscles to the heel bone. This tendon is used when walking, jumping, and running and can be prone to overuse injuries. An increase in activity level, tight calf muscles, or trauma can cause inflammation and irritation on the tendon leading to pain during activities.



Achilles tendonitis and Achilles strain

Tendonitis is an inflammation or swelling of the Achilles tendon, a strain is a pulling of the Achilles tendon usually related to a traumatic injury. An Achilles rupture is a complete tear of the Achilles tendon.

Treatment of Achilles strain and Achilles tendonitis

Treatment for Achilles tendon and strain are very similar:

R

REST

Rest from all activities that cause pain or limping. If necessary, use crutches until you can walk without pain or limping.

I

ICE

Place an ice bag on the ankle for 15 to 20 minutes, or use an ice bucket 3 to 5 times a day for the first 24 to 72 hours and/or after activities.

C

COMPRESSION

Wrap an elastic bandage from the toes to mid calf, using even pressure. Wear this until swelling decreases. Loosen the wrap if your toes start to turn blue or feel cold.

E

ELEVATION

Elevate the ankle above heart level until swelling subsides.

Stretching

As soon as you can tolerate pressure on the ball of your foot, begin stretching your ankle using the towel stretch. When this stretch is too easy, try the standing calf stretch and the soleus stretch.

1. **Towel Stretch** - Sit on a hard surface with your injured leg stretched out in front of you. Loop a towel around the ball of your foot, and pull the towel toward your body. Be sure to keep your knee straight. Hold this position for thirty seconds and repeat three times.



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2. **Standing Calf Stretch** - Facing a wall, put your hands against the wall at about eye level. Keep the uninjured leg forward and your injured leg back about 12-18 inches behind your uninjured leg. Keep your injured leg straight and your heel on the floor and keep your toes pointed towards the wall. Next, do a slight lunge by bending the knee of the forward leg. Lean into the wall until you feel a stretch in your calf muscle. Hold this position for 30-60 seconds, and repeat 3 times.



3. **Standing Soleus Stretch** - Facing a wall, put your hands against the wall at about eye level. Keep the uninjured leg forward and your injured leg back about 4-6 inches behind your uninjured leg. Keep both heels on the ground and gently bend your knees until you feel a stretch in your calf muscle. Hold this position for 30-60 seconds, and repeat 3 times.



You can do exercises 4 and 5 when your ankle swelling has stopped increasing. You may do exercise 6 when you can stand on your injured ankle without pain. Continue these exercises after return to your activities to prevent future injuries

4. **Ankle Alphabets** - You can do this exercise sitting or lying down. Pretend you are writing each of the letters of the alphabet with your foot. This will move your ankle in all directions. The movement should come from your ankle, not from your hip or knee. Do this twice.

5. **Heel Raises** - While standing, on the floor or on a small step balance yourself on both feet and hold onto a wall for balance. Rise up on your toes, hold for five seconds, and then lower yourself back down. Repeat 10 times, and do 3 sets of 10. Once you are comfortable with this, try on one leg. 3 sets of 10.



6. **Lunges** - Overall strengthening will help prevent future injuries. Lunges help strengthen the thigh and hip muscles. Stand with the left foot behind the right foot, slightly bending the right leg to make a 90 degree angle with the right knee. Keeping the back straight, bend the left leg lowering yourself to the ground. You should feel a stretch in the left groin. Hold for 5 seconds, and switch legs. Repeat 10 times.

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When can I return to my sport or activity?

The goal of rehabilitation is to return you to your sport or activity as soon as is safely possible. If you return too soon, you may worsen your injury, which could lead to permanent damage. Everyone recovers at a different rate.

Returning to your sport or activity will be determined by how soon your ankle recovers, not by how many days or weeks it has been since your injury has occurred. In general, the longer you have symptoms before you start treatment, the longer it will take to get better.

You may safely return to your sport or activity when, starting from the top of the list and progressing to the end, each of the following is true:

- You have full range of motion in the injured ankle, compared to the uninjured ankle
- You have full strength of the injured ankle compared to the uninjured ankle and are able to complete the above exercises without pain
- You can jog straight ahead without pain or limping
- You can sprint straight ahead without pain or limping
- You can jump on both legs without pain, and you can jump on the injured leg without pain

Return to your sport at about 50% effort, and increase by about 10% each week. If you begin with pain, you may need to rest for a few days before returning to activities.