ALL-STAR CHIROPRACTIC & SPORTS REHABILITATION

Achilles Tendon Injury

What is an Achilles tendon injury?
The Achilles tendon is a band of tissue that connects the heel bone to the calf muscle of the leg. Injury to the tendon may cause it to become inflamed or torn. Achilles tendonitis is the term used when the tendon is inflamed. The inflammation causes pain at the back of your leg near the heel. A full tear of the tendon is called a rupture, also causing pain near your heel.

How does it occur?
Achilles tendonitis can he caused by:

- overuse of the Achilles tendon
- tight calf muscles / Achilles tendon
- lots of uphill running
- increasing the amount or intensity of sports training
- over-pronation, a flat foot
- wearing high heels at work, then lower-heeled for exercise
- it may occur during sudden activity (during a jump or sprint)

What are the symptoms?
Pain over the Achilles tendon in the back of the ankle. The tendon is tender and may be swollen. The pain increases when you rise up on your toes or stretch your calf. The range of motion of your ankle may be limited. When the tendon tears or ruptures, you may feel a pop. If there is a complete tear, you will be unable to walk on your toes.

How is it diagnosed?
Your health care provider will examine your leg, looking for tenderness and swelling. They may watch your feet when you walk or run to see if you over-pronate, then make specific recommendation to return you to your activities as soon as possible.

How is it treated?

- Ice the Achilles tendon for 15 minutes every 3 to 4 hours for the first 2 or 3 days or until the pain goes away. You can also heat the calf at the same time for 15 minutes.
- Elevate your ankle when possible above your heart.
- Take anti-inflammatory medication as prescribed by your health care provider.
- Have *The Running Store* perform a gait analysis to ensure your shoes are not aggravating your condition.
- Wear arch supports (orthotics) for over-pronation.
- Physical Therapy / Sports Chiropractic will focus on stretching the tissues of your leg and strengthen the weak muscles that are contributing to the problem.
- Change your sport or activity to one that does not make your condition worse. (i.e. move from running to cycling or swimming).

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 from injury at a different rate. Return to your activity is determined by how soon your Achilles tendon area recovers, not by how many days or weeks it has been since your injury 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 and strength in the injured leg compared to the uninjured leg.
- You can jog and sprint straight ahead without pain or limping.
- You can do 45-degree , then 90-degree cuts, first at half-speed, then at full-speed.
- You can do 20-yard, then 10-yard figures-of-eight, first at half-speed, then at full-speed.
- You can jump on both legs without pain and you can jump on the injured leg without pain.

How can I prevent Achilles tendonitis?
The best way to prevent an Achilles tendon injury is to stretch your calf muscles and Achilles tendons before and after exercise. If you have tight Achilles tendons or calf muscles, stretch them twice a day (holding each stretch for 20 seconds, performing 3 times in a row) whether or not you are doing any sports activities that day. If you have a tendency to get Achilles tendonitis, avoid running uphill when possible.

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Achilles Tendonitis Rehabilitation Exercises

You can do the towel stretch right away. When the towel stretch is too easy, try the standing calf stretch, soleus stretch, and plantar fascia stretch. When you no longer have sharp pain in your calf or tendon, you can do the heel raises, step-up, and static and dynamic balance exercises.

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 keeping your knee straight. Hold this position for 20 seconds then relax. Repeat 3 times.

2. STANDING CALF STRETCH: Facing a wall put your hands against the wall at eye level. Keep the injured leg back, the uninjured leg forward, and the heel of your injured leg on the floor. Turn your injured foot slightly inward (as if you were pigeon-toed) as you slowly lean into the wall until you feel a stretch in the back of your calf. Hold for 20 seconds. Repeat 3 times, several times each day.

3. STANDING SOLEUS STRETCH: Stand facing a wall with your hands at chest level. With both knees slightly bent and the injured foot back, gently lean into the wall until you feel a stretch in your lower calf. Once again, angle the toes of your injured foot slightly inward and keep your heel down on the floor. Hold this for 20 seconds. Return to the starting position. Repeat 3 times.

4. PLANTAR FASCIA STRETCH: Stand with the ball of your injured foot on a stair. Reach for the bottom step with your heel until you feel a stretch in the arch of your foot. Hold this position for 20 seconds and then relax. Repeat 3 times.

5. HEEL RAISES: Balance yourself while standing behind a chair or counter. Raise your body up onto your toes and hold it for 5 seconds, then slowly lower yourself down. Repeat 10 times. Do 3 sets of 10.

6. STEP-UP: Stand with the foot of your injured leg on a support (like a block of wood) 3 to 5 inches high. Keep your other foot flat on the floor. Shift your weight onto the injured leg and straighten the knee as the uninjured leg comes off the floor. Lower your uninjured leg to the floor slowly. Do 3 sets of 10.

7. STATIC AND DYNAMIC BALANCE EXERCISES

A. Place a chair next to your non-injured leg and stand upright. (This will provide you with balance if needed.) Stand on your injured foot. Try to raise the arch of your foot while keeping your toes on the floor. Try to maintain this position and balance on your injured side for 30 seconds. This exercise can be made more difficult by doing it on a piece of foam or a pillow, or with your eyes closed.

B. Stand in the same position as above. Keep your foot in this position and reach forward in front of you with your injured side's hand, allowing your knee to bend. Repeat this 10 times while maintaining the arch height. This exercise can be made more difficult by reaching farther in front of you. Do 2 sets.

C. Stand in the same position as above. While maintaining your arch height, reach the injured side's hand across your body toward the chair. The farther you reach, the more challenging the exercise. Do 2 sets of 10.

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