

# **Achilles tendon rupture**

### **Overview**

Achilles (uh-KILL-eez) tendon rupture is an injury that affects the back of your lower leg. It mainly occurs in people playing recreational sports, but it can happen to anyone.

The Achilles tendon is a strong fibrous cord that connects the muscles in the back of your calf to your heel bone. If you overstretch your Achilles tendon, it can tear (rupture) completely or just partially.

If your Achilles tendon ruptures, you might hear a pop, followed by an immediate sharp pain in the back of your ankle and lower leg that is likely to affect your ability to walk properly. Surgery is often performed to repair the rupture. For many people, however, nonsurgical treatment works just as well.

# **Symptoms**

Although it's possible to have no signs or symptoms with an Achilles tendon rupture, most people have:

- · The feeling of having been kicked in the calf
- · Pain, possibly severe, and swelling near the heel
- An inability to bend the foot downward or "push off" the injured leg when walking
- An inability to stand on the toes on the injured leg
- A popping or snapping sound when the injury occurs

#### When to see your doctor

Seek medical advice immediately if you hear a pop in your heel, especially if you can't walk properly afterward.

#### Causes

Your Achilles tendon helps you point your foot downward, rise on your toes and push off your foot as you walk. You rely on it virtually every time you walk and move your foot.

Rupture usually occurs in the section of the tendon situated within 2 1/2 inches (about 6 centimeters) of the point where it attaches to the heel bone. This section might be prone to rupture because blood flow is poor, which also can impair its ability to heal.

Ruptures often are caused by a sudden increase in the stress on your Achilles tendon. Common examples include:

- Increasing the intensity of sports participation, especially in sports that involve jumping
- · Falling from a height
- · Stepping into a hole

## **Risk factors**

Factors that may increase your risk of Achilles tendon rupture include:

- Age. The peak age for Achilles tendon rupture is 30 to 40.
- Sex. Achilles tendon rupture is up to five times more likely to occur in men than in women.
- Recreational sports. Achilles tendon injuries occur more often during sports that involve running, jumping, and sudden starts and stops such as soccer, basketball and tennis.
- **Steroid injections.** Doctors sometimes inject steroids into an ankle joint to reduce pain and inflammation. However, this medication can weaken nearby tendons and has been associated with Achilles tendon ruptures.
- Certain antibiotics. Fluoroquinolone antibiotics, such as ciprofloxacin (Cipro) or levofloxacin (Levaquin), increase
  the risk of Achilles tendon rupture.
- Obesity. Excess weight puts more strain on the tendon.

### **Prevention**

To reduce your chance of developing Achilles tendon problems, follow these tips:

- Stretch and strengthen calf muscles. Stretch your calf until you feel a noticeable pull but not pain. Don't bounce
  during a stretch. Calf-strengthening exercises can also help the muscle and tendon absorb more force and
  prevent injury.
- Vary your exercises. Alternate high-impact sports, such as running, with low-impact sports, such as walking, biking or swimming. Avoid activities that place excessive stress on your Achilles tendons, such as hill running and jumping activities.
- Choose running surfaces carefully. Avoid or limit running on hard or slippery surfaces. Dress properly for cold-weather training, and wear well-fitting athletic shoes with proper cushioning in the heels.
- Increase training intensity slowly. Achilles tendon injuries commonly occur after an abrupt increase in training intensity. Increase the distance, duration and frequency of your training by no more than 10 percent weekly.

#### By Mayo Clinic Staff

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