



PERONEAL TENDON RUPTURE

■ ■ ■ Description

Peroneal tendon rupture is a complete tear of one of the peroneal tendons. These structures are the tendon attachments of the outer leg muscles (peroneus longus and peroneus brevis) to the outer part of the foot (brevis) and the bottom of the inner part of the foot (longus). There is loss of continuity between one or both of the outer leg muscles and the foot and thus loss of function of the muscles. Usually only one of the tendons is torn or ruptured. The function of the peroneal muscles is to forcefully push the front of the foot down (such as when standing on toes and pushing off with walking, running, or jumping) and turn the foot outward.

■ ■ ■ Common Signs and Symptoms

- A pop or rip felt behind the outer part of the ankle
- Pain and weakness with moving the foot (especially when pushing down with the front of the foot or turning it inward)
- Inability to or weakness with attempts to stand on the toes or ball of foot
- Tenderness, swelling, warmth, and redness around the peroneal tendons
- Bruising at the heel after 48 hours

■ ■ ■ Causes

Peroneal tendon rupture is felt to be due to mechanical wear of the tendon in its groove behind the outer ankle, resulting in a degenerative process or overuse of the lower leg muscles. However, it may also occur from strain from a sudden increase in the amount or intensity of activity, from a direct injury, or from injury to the lower leg, foot, or ankle. Usually the rupture occurs after a sudden episode of stressful overactivity, such as with jumping, hurdling, or starting a sprint, when the tendon is already degenerated. Rarely a direct laceration (cut) of the tendon or direct trauma may also cause this injury.

■ ■ ■ Risk Increases With

- Sports that require sudden, explosive muscle contraction, such as those involving jumping and quick starts; also with running or contact sports or when kicking with the outer part of the foot (martial arts)
- Poor physical conditioning (strength and flexibility)
- Previous or concurrent ankle sprain
- Previous or untreated peroneal tendon injury
- Cortisone injection into the peroneal tendon
- Increasing age and medical problems (obesity or decreased circulation due to cardiovascular problems)

■ ■ ■ Preventive Measures

- Appropriately warm up and stretch before practice or competition.

- Allow time for adequate rest and recovery between practices and competition.
- Maintain appropriate conditioning:
 - Ankle and leg flexibility
 - Muscle strength and endurance
 - Cardiovascular fitness
- Arch supports (orthotics), taping, protective strapping, or an adhesive bandage may be recommended before practice or competition.
- Complete rehabilitation of a previous ankle or foot injury before returning to competition or practice.

■ ■ ■ Expected Outcome

Surgery is usually required to return to full activity. Sports can often be resumed after 4 to 9 months.

■ ■ ■ Possible Complications

- Weakness of the peroneal muscles, especially if untreated, resulting in problems standing on toes and pushing off
- Rerupture of the tendon after treatment
- Pain with walking
- Prolonged disability
- Arthritis of the foot
- Risks of surgery, including infection, injury to nerves (numbness, weakness), bleeding, and ankle stiffness

■ ■ ■ General Treatment Considerations

Initial treatment consists of not walking on the affected leg, icing the area, applying a compressive elastic bandage, and elevating the injured leg to eye level. Definitive treatment options include surgical and nonsurgical intervention. Surgery, as soon as possible after the injury, is usually recommended.

- *Nonsurgical treatment* is usually reserved for patients with medical problems or after chronic injury.
- *Surgical treatment* is usually involves sewing the ends of the tendon back together, followed by immobilization in a cast (usually a short leg cast, below the knee to toes). If the injury is not acute or if the surgeon is unable to suture (sew) the tendon ends back together, the torn end of the tendon is sewn to the intact peroneal tendon.

■ ■ ■ Medication

- Nonsteroidal anti-inflammatory medications, such as aspirin and ibuprofen (do not take within 7 days before surgery), or other minor pain relievers, such as acetaminophen, are often recommended. Take these as directed by your physician. Contact your physician immediately if any bleeding, stomach upset, or signs of an allergic reaction occur.
- Pain relievers may be prescribed as necessary by your physician. Use only as directed and only as much as you need.

■ ■ ■ Notify Our Office If

- Pain increases despite treatment
- Cast discomfort develops
- If any of the following occur after surgery:
 - You experience pain, numbness, or coldness in the foot and ankle
 - Blue, gray, or dusky color in the toenails
 - You develop signs of infection, including fever, increased pain, swelling, redness, drainage, or bleeding in the surgical area
- New, unexplained symptoms develop (drugs used in treatment may produce side effects)

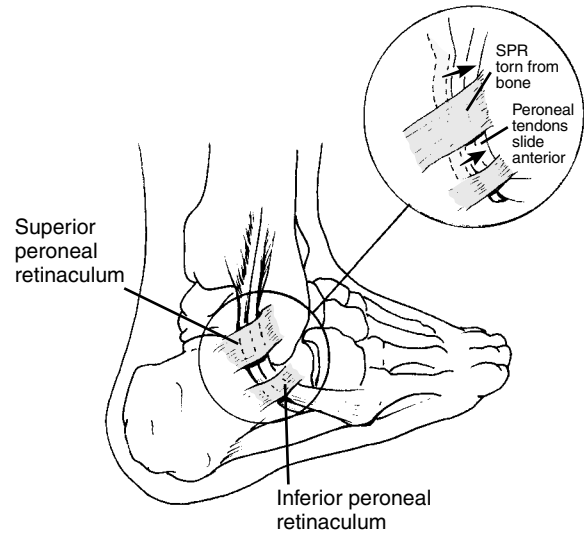


Figure 1

From Shankman GA: Fundamental Orthopaedic Management for the Physical Therapy Assistant. St. Louis, Mosby Year Book, 1997, p. 130.

Notes:

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Notes and suggestions