OVERVIEW
Peroneal tendonitis is an inflammatory condition of the tendons at the lateral side of the ankle, usually due to mechanical overload. Typically, there is pain with and after activity that improves with rest. Treatment is to reduce the pain and inflammation with anti-inflammatory drugs, rest, and avoidance of the aggravating activity which caused the mechanical overload. Usually, as the pain and inflammation improve, it is okay to gradually return to previous activities. A home physical therapy program focused on stretching the calf muscles is a key means of avoiding recurrence and participating at a maximum level in your exercise and sports activities.

BACKGROUND
The peroneal muscles and their tendons lie along the outside of the lower leg and cross behind the lateral malleolus at the outer side of the ankle and are kept within the groove by a sheath that forms a tunnel around the tendons. Contracting the peroneal muscles makes the tendons glide in the groove pulling the foot downward and outward.

Any forceful activity or increase in repetition can cause mechanical irritation to the tendons. Activity related overuse is one side of the problem. The other side is the strength and flexibility of the muscle, tendons, and ligaments in the legs. Mechanical overload results from too much force too many times on a muscle/tendon complex that does not have enough strength and flexibility to withstand the applied forces.

Peroneal tendon problems mostly occur where the tendons glide behind and below the lateral malleolus. Their movement can cause irritation of the lining of the tendons. This condition is called tenosynovitis. The irritation can also occur after an ankle injury, such as a blow to the outside of the ankle or an ankle sprain. Repetitive ankle motions in sports, such as running and jumping, can lead to wear and tear on the tendons inside the groove. A high arch puts extra tension on the peroneal tendons within the groove and has also been found to cause peroneal tendon problems. An inversion ankle sprain can also cause the peroneal tendons to momentarily slip out of the groove. This is called subluxation. Peroneal tendonitis often occurs during the recovery period after an ankle sprain.
In some patients, a peroneal tendon problem is caused by degenerative changes in the tendons themselves rather than by inflammation around the tendons. The tendon itself becomes abnormal and this is called tendonosis. Some of the individual strands of the tendon become jumbled due to the degeneration, some fibers break, and the tendon loses strength. Over time, the tendon thickens as scar tissue tries to repair the damaged tendon. The area of tendonosis in the tendon is weaker than normal tendon. The weakened, degenerative tendon may tear.

**CLINICAL PRESENTATION AND DIAGNOSIS**
Symptoms of tendonitis fall into a common pattern. Mild pain is located over the tendon. Pain is worse with palpation over the tendon and with contraction of the muscle. The pain is worse after exercise or running and gradually worsens. There may be a noticeable sense of sluggishness in your leg. Episodes of diffuse or localized pain, sometimes severe, develops along the tendon during or a few hours after activity. There can also be stiffness in the morning after sitting for a period of time. Stiffness diminishes with use as the tendon warms up. Sometimes there is mild swelling or a nodular feel to the tendon.

The diagnosis of peroneal tendonitis is usually made by examination of the ankle. X-rays may be ordered to make sure there is no fracture or other problem. The physical examination helps determine where the tendons are inflamed, ruptured, or degenerated. The doctor will move your ankle into different positions. The peroneal tendons are checked by holding your foot up and out against the doctor’s downward pressure. Stretching the foot up and in can also be used test whether the tendons hurt. Your doctor may order an MRI scan of your ankle.

**TREATMENT**
Treatment depends on the degree of injury to the tendon, but usually involves rest and anti-inflammatory medications to settle things down and then stretching and other modifications to avoid recurrence with return to your usual activities.

Settling the pain and inflammation down requires rest and anti-inflammatory medications. Rest, which may mean a total withdrawal from work or exercise for short period, or it may mean doing light duty work or switching to another exercise, such as swimming, that does not stress the peroneal tendons. NSAIDs like ibuprofen or naproxen will also help to reduce the inflammation. NSAIDs can cause stomach irritation, so if you get heartburn or indigestion you should stop taking the medication. You can reduce this risk by taking the medication with food.

Once the pain and inflammation has improved, a rehabilitation program is started with a goal of reducing the inflammation and controlling the mechanical irritation. The physical therapist may use heat, ice, and ultrasound treatments to reduce pain and swelling. Stretching, strengthening,
and ankle coordination exercises are added as symptoms ease. Effective calf stretching is probably the one most important means of treatment and prevention. There are two components of the calf muscle. The gastrocnemius reaches from above your knee to below your ankle and is best stretched with the knee straight. The soleus part reaches from the back of the tibia (shin bone) to below your ankle and is best stretched with the knee partially bent to relax the gastrocnemius. Before you stretch, it may be valuable to warm up for 5 minutes. Stretch until you feel tension, not pain. Hold Additional options for controlling the mechanical irritation include shoe modifications or using an orthotic or brace in your shoe.

Recurrence is common, but is best managed with these same treatment recommendations. In rare cases, cortisone can be injected into the sore tendons to relieve symptoms that won’t go away. Cortisone is a powerful anti-inflammatory medication. Because there is a risk that cortisone will cause a tendon to rupture, doctors are very cautious about injecting cortisone into the peroneal tendons. Surgery is an option of last resort. If friction between the tendon and its covering sheath makes the sheath thick and scared, surgery to remove the fibrous scar tissue and smooth any tears may be the only treatment option. Recovery is slow, may require a temporary cast, and requires a rehabilitation program to avoid weakness. Surgery is usually not considered until it has become impossible to control the symptoms without it.

PROGNOSIS
The prognosis for functional recovery is very good. In general, peroneal tendonitis is successfully treated with conservative measures. Because the prognosis is so good, refractory cases should be closely reviewed with regard to compliance and understanding of treatment recommendations.

MORE INFORMATION
Further information can be obtained on the internet. Your local public library can help you explore these sources if you are interested. Two good internet sites for expert and peer reviewed information are the American Academy of Orthopedic Surgeons at www.aaos.org and www.emedicine.com.

FEEDBACK
If you have questions or comments, please contact the office or submit them to the web site at www.pedortho.com.