

## ***POPLITEUS TENDINITIS***

### **DESCRIPTION**

Inflammation and pain at the knee joint on the back part of the outer side of the knee and the outer side just above the knee at the popliteus tendon. The popliteus tendon is the tendon attachment of the popliteus muscle from the back of the leg bone at the knee to the outer side of the knee. This structure is important for slowing the knee as it straightens and rotating the leg bone. It is important for walking or running on downhill or on banked terrain. This is usually a grade 1 or 2 strain of the tendon. A *Grade 1 strain* is a mild strain. There is a “slight pull” without obvious tearing (it is microscopic tendon tearing). There is no loss of strength and the tendon is the correct length. A *Grade 2 strain* is a moderate strain. There is tearing of fibers within the substance of the tendon or where the tendon meets the bone or muscle. The length of the muscle-tendon-bone unit is increased and there is usually decreased strength. A *grade 3 strain* is a complete rupture of the tendon, which is a rare injury except when associated with severe injury to the knee.

### **FREQUENT SIGNS AND SYMPTOMS**

- Pain and, tenderness over the popliteus tendon at the outer knee or back of the knee on the outer side. The pain is worse when standing on the leg with the knee bent slightly or when walking or running just as the foot of the affected leg lifts off the ground. Pain is worse with rotating the leg.
- Pain starts or recurs after running a particular distance.
- Crepitation (a crackling sound) when the tendon is moved or touched (uncommon, unless when tested just after exercising)

### **CAUSES**

Overuse of the popliteus muscle-tendon unit usually in an athlete who runs or trains on hills or banked surfaces.

### **RISK INCREASES WITH**

- Sports or activities that require a lot of downhill walking or running, such as with backpacking, cross-country running and distance running. Also running on a banked track or the next to the curb on the same side of the street (banked surface)
- Poor physical conditioning (strength/flexibility)
- Inadequate warm-up prior to practice or play
- Flat feet.

### **PREVENTIVE MEASURES**

- Appropriate warm up and stretching before practice or competition
- Give time for adequate rest and recovery between practices and competition
- Appropriate conditioning including knee and thigh flexibility, strength and endurance
- Proper training technique, including reducing mileage run, shorten stride length, change side of road or track you run on
- Arch supports (orthotics) for those with flat feet.

## **EXPECTED OUTCOME**

Usually curable within 6 weeks if treated appropriately with conservative treatment and resting the affected area, though many cases get better in 10 - 14 days.

## **POSSIBLE COMPLICATIONS**

- Healing time will be prolonged if not appropriately treated or if not given adequate time to heal
- Chronically inflamed tendon causing persist pain with activity that may progress to constant pain
- Recurrence of symptoms if return to activity is too soon, with overuse, direct blow, or poor training technique.

## **GENERAL TREATMENT CONSIDERATIONS**

Initial treatment consists of medication and ice to relieve the pain, stretching and strengthening exercises of the quadriceps and hamstrings muscles and modifying the activity which initially cause the problem to occur. These all can be carried out at home, though referral to a physical therapist or athletic trainer for further evaluation and treatment may be helpful. An orthotic (arch support) may be prescribed for those with flat feet to reduce stress to the tendon. A knee sleeve or bandage may help keep the tendon warm during activity and reduce some of the symptoms. Modification of training techniques, including running uphill and changing the side of the road or track you run on (banked the other way) may help reduce stress to the muscle. An injection of cortisone to the inflamed area around the tendon may be recommended for persistent cases. Surgery to remove the inflamed tendon lining or degenerated tendon tissue is rarely necessary and usually only considered after at least 6 months of conservative treatment.

## **MEDICATION**

- Non-steroidal anti-inflammatory medications, such as aspirin and ibuprofen (do not take if surgery planned in 7 days or less), or other minor pain relievers, such as acetaminophen, are often recommended. Take these as directed by your physician. Contact him/her immediately if any bleeding, stomach upset or an allergic reaction occurs.
- Pain relievers may be prescribed as necessary by your physician. Use only as directed.
- Cortisone injections reduce inflammation, and anesthetics temporarily relieve pain. However, this is done only in extreme cases as there is a limit to the number of times cortisone may be given due to the fact it weakens muscle and tendon tissue.

## **HEAT AND COLD:**

- Cold is used to relieve pain and reduce inflammation for acute and chronic cases. Cold should be applied for 10 - 15 minutes every 2-3 hours for inflammation and pain, and immediately after any activity which aggravates your symptoms. Use ice packs or an ice massage.
- Heat may be used prior to performing stretching and strengthening activities prescribed by your physician, physical therapist or athletic trainer. Use heat pack or a warm soak.

## **NOTIFY OUR OFFICE IF**

- Symptoms get worse or do not improve in 2 weeks despite treatment
- New, unexplained symptoms develop. Drugs used in treatment may produce side-effects.