

Marc R. Safran, MD Professor, Orthopaedic Surgery Chief, Division of Sports Medicine

PIRIFORMIS SYNDROME

DESCRIPTION

A nerve condition in the hip causing pain and occasionally loss of feeling in the back of the thigh, often to the bottom of the foot. It involves compression of the sciatic nerve at the hip by the piriformis muscle. The piriformis muscle rotates the hip allowing the thigh, foot and knee to point outward. The piriformis muscle travels from the pelvis to the outer hip. The sciatic nerve usually passes the hip between this muscle and other muscles of the hip. Occasionally (15-20% of the time) the nerve travels directly through the muscle causing pressure on the nerve.

FREQUENT SIGNS AND SYMPTOMS

- Tingling, numbness or burning in the back of the thigh to the knee and occasionally the bottom of the foot.
- Occasionally tenderness in the buttock
- Pain and discomfort (burning, dull ache) in the hip or groin, mid buttock area, and/or back of the thigh, and sometimes to the knee
- Heaviness or fatigue of the leg.
- The pain is worse with sports activities such as running, jumping, long walks, walking up stairs or hills and is often be felt at night or with prolonged sitting.
- Pain with sitting, particularly on a hard surface or hard chair
- Pain is lessened by laying flat on the back.

CAUSES

Pressure on the sciatic nerve at the hip by anything that may cause the piriformis muscle to spasm and constrict the nerve. This includes strain from sudden increase in amount or intensity of activity or overuse of the lower extremity. It may also be due to compensation of other extremity injuries.

RISK INCREASES WITH

- Sports with running, jumping or prolonged walking
- Being born with the nerve traveling through the piriformis muscle
- Poor physical conditioning (strength/flexibility)

EXPECTED OUTCOME

Usually curable, with appropriate treatment or sometimes spontaneously within 2 - 6 weeks. Rarely, surgery is necessary.

POSSIBLE COMPLICATIONS

- Permanent numbness in the affected knee, leg and foot
- Persistent pain in the knee, leg and foot.
- Increasing weakness of the extremity
- Disability and inability to compete



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GENERAL TREATMENT CONSIDERATIONS

Initial treatment consists of rest from the offending activity and the use of medications to help reduce inflammation and pain. Stretching exercises of the muscles of the hip are useful. Many patients like to roll out their hip / buttock / piriformis muscle using a lacrosse ball. Referral to physical therapy and/or an athletic trainer may be recommended for further treatment, including ultrasound and other modalities. Injections with cortisone, often with numbing medicine, to the area where the nerve is being pinched may help reduce the nerve inflammation and pinching. This is usually done with the assistance of ultrasound or XRay guidance. Relief within the first hour or 2 after the injection helps confirm the piriformis is the source of pain, while the cortisone helps treat the problem, in conjunction with physical therapy. If this conservative treatment is not successful, surgery may be necessary to free the pinched nerve by cutting the muscle or tendon where the nerve is being pinched. Surgery is uncommonly necessary, but does provide almost complete relief in most patients who undergo this operation.

MEDICATION

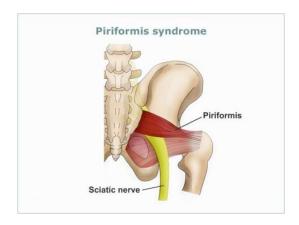
- Non-steroidal anti-inflammatory medications, such as aspirin and ibuprofen (do not take if surgery planned in 7 days or less), or other minor pain relievers, such as acetaminophen, are often recommended. Take these as directed by your physician. Contact your physician immediately if any bleeding, stomach upset or an allergic reaction occurs.
- Pain relievers may be prescribed as necessary by your physician, usually only after surgery. Use only as directed and only as much as you need.
- Injections of corticosteroids may be given to reduce inflammation and make it easier to do the rehabilitation.

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.



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