STANFORD
SCHOOL OF MEDICINE
Stanford University Medical Center

DEPARTMENT OF ORTHOPEDIC SURGERY
SPORTS MEDICINE
Marc R. Safran, MD
Professor, Orthopaedic Surgery
Chief, Division of Sports Medicine

HAMSTRING SYNDROME

DESCRIPTION

A rare 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 a band of ligament-like (fibrous) band between 2 of the 3 hamstring muscles or between the muscle and bone of the pelvis. The hamstrings are 3 muscles that go from the pelvis or upper thigh, across the back of the knee to the leg. This muscle group is important for bending your knee, straightening your hip and stabilizing the knee. It is also important for running and jumping. The sciatic nerve usually passes near these muscles and the pelvis then runs under these muscles in the thigh.

FREQUENT SIGNS AND SYMPTOMS

- Tingling, numbness or burning in the back of the thigh to the back of the knee and occasionally to the bottom of the foot.
- Tenderness in the buttock
- Pain and discomfort (burning or dull ache) in the hip or groin, mid buttock area, in the back of the thigh, sometimes to the knee
- Heaviness or fatigue of the leg.
- The pain is worse with sitting, running fast, kicking or trying to stretch the hamstring muscles
- Pain is lessened by laying flat on the back.

CAUSES

Pressure on the sciatic nerve at the hip by a fibrous band from the hamstring to bone in the pelvis or other hamstring muscles.

RISK INCREASES WITH

- Sports that require jumping, sprinting, hurdling, or sitting. Also in soccer players and football kickers
- Recurrent hamstring muscle strains.
- Poor physical conditioning (strength/flexibility)

EXPECTED OUTCOME

Usually curable, with appropriate treatment or sometimes spontaneously within 2 - 6 weeks. Uncommonly, 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 non-steroidal anti-inflammatory medications to help reduce inflammation and pain. Stretching exercises of the hamstring muscles are useful. 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 be recommended to help reduce the nerve inflammation and pinching. If this conservative treatment is not successful, surgery may be necessary to free the pinched nerve by cutting the fibrous band 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 him/her 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.

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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