

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

## **SCIATICA**

### DESCRIPTION

Inflammation of the sciatic nerve from the back to the leg. The sciatic nerve supplies the muscles of the back of the thigh (hamstrings), lower leg and foot and ankle. It also supplies the sensation of the skin of the back of the thigh, outer leg and the bottom and inner portions of the foot. This nerve can become inflamed for many different reasons.

## FREQUENT SIGNS AND SYMPTOMS

- Pain in the back of the thigh, usually traveling below the knee. May be worse with prolonged sitting, bending, sneezing, coughing or straining.
- Numbness and/or weakness affecting the thigh, leg, foot and/or ankle.
- Occasionally, pain in the back or buttock

## **CAUSES**

Inflammation of the sciatic nerve due to irritation. This includes prolonged sitting on a wallet, trauma, ruptured disc, arthritic spurs of the spine, spondylolisthesis (slippage of the vertebrae), pressure from muscles of the pelvis (hamstring, piriformis)

### RISK INCREASES WITH

- Any sport in which movement causes downward or twisting pressure on the spine. The most common sports include football, weight-lifting, horseback riding /equestrian competition, bowling, tennis, jogging, track, racquetball, or gymnastics.
- Poor physical conditioning (strength/flexibility)
- Inadequate warm-up prior to practice or play
- Family history or of low back pain or disc disorders.
- Previous back surgery (especially fusion)
- Pre-existing spondylolisthesis
- Poor mechanics with lifting
- Prolonged sitting, especially with poor mechanics

## PREVENTIVE MEASURES

- Proper mechanics when sitting or lifting
- Appropriate warm-up and stretching before practice or competition.
- Appropriate conditioning:
  - Back and hamstring flexibility
  - Back muscle strength & endurance
  - Cardiovascular fitness
  - Maintain ideal body weight
- If previously injured, avoid any vigorous physical activity that requires twisting of the body under uncontrollable conditions.

### **EXPECTED OUTCOME**

Usually curable with appropriate conservative treatment within 6 weeks. Some patients need surgery

# DEPARTMENT OF ORTHOPEDIC SURGERY SPORTS MEDICINE

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## POSSIBLE COMPLICATIONS

- Permanent numbness, weakness or paralysis and muscle wasting.
- Chronic back pain
- Risks of surgery including infection, bleeding, injury to nerves (persistent or increased numbness, weakness, or paralysis), persistent back and leg pain, spinal headache

### GENERAL TREATMENT CONSIDERATIONS

The initial treatment consists of rest, medications and ice to relieve pain and inflammation. Exercises to improve strength and flexibility and proper back mechanics are important. Refrain from offending activities. Referral to a physical therapist or athletic trainer may be recommended for these exercises, education of back mechanics and possibly modalities (TENS, ultrasound, etc). Biofeedback and psychotherapy may also be recommended. Occasionally, epidural steroid injection or oral steroids may be attempted to reduce the inflammation of the nerve. For patients who have continued symptoms despite conservative management, particularly those with persistent pain, numbness and/or weakness, surgery may be recommended to remove the source of irritation to the sciatic nerve when identified.

### **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.
- Topical ointments may be of benefit.
- Pain relievers and muscle relaxants may be prescribed as necessary by your physician. Use only as directed. Do not work any heavy machinery or drive a car while on these medications.
- Injections of corticosteroids into the epidural space of the spine may be given to reduce inflammation, though not usually for acute injuries.
- Oral steroids may be given to reduce inflammation, though not usually for acute injuries.

## **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 2-4 weeks despite treatment
- You develop loss of bowel or bladder function
- New, unexplained symptoms develop. Drugs used in treatment may produce side-effects.