

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

## ANTERIOR ANKLE IMPINGEMENT

#### DESCRIPTION

Pinching of bone or soft tissue, including scar tissue, at the front of the ankle. This could be due to a new or repeated injury, usually caused by direct trauma or after healing from a previous injury, such as an ankle sprain. The inflamed tissues or scar tissue gets caught between the lower part of the tibia and the talus bones. A bony prominence (spur) from the front tip of the lower part of the tibia may also pinch normal tissue against the talus causing it to become inflamed. This inflamed tissue becomes easier to get pinched since it tends to be larger (due to tissue swelling).

## FREQUENT SIGNS AND SYMPTOMS

- Pain with extending the ankle (bringing the front of the foot up)
- Loss of push off or drive (the ability to run forcefully), inability to run, cut or jump at full speed
- Swelling (occasionally) and locking (rarely)

#### **CAUSES**

Repeated injury to the foot or ankle, even mild injuries, particularly ankle sprains. Also participation in sports that require "pushing off" or "springing" from a position with the ankle extended.

## **RISK INCREASES WITH**

- Sports that require repeated, forceful extension of the ankle (such as sprinting, jumping)
- Repeated injuries to the foot and/or ankle
- Poor physical conditioning (strength/flexibility)
- Inadequate warm-up before practice or competition

#### PREVENTIVE MEASURES

- Appropriate warm-up and stretching before practice and competition
- Appropriate conditioning:
  - Ankle/leg flexibility, muscle strength & endurance
- Proper technique
- Proper protective taping or bracing to prevent ankle hyperextension or repeated injury.
- Allowing complete recovery after an ankle or foot injury before returning to any sport that requires ankle extension.

### **EXPECTED OUTCOME**

Usually there is no disability associated with this problem with proper treatment. However, occasionally surgery is required to eliminate the pinching with excellent results.

#### POSSIBLE COMPLICATIONS

- Frequent recurrence of symptoms, resulting in chronically inflamed tissue and eventually resulting in a chronic repetitive problem
- Disability severe enough to diminish an athlete's competitive ability.
- Arthritis of the ankle

# DEPARTMENT OF ORTHOPEDIC SURGERY SPORTS MEDICINE

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## GENERAL TREATMENT CONSIDERATIONS

Initial treatment consists of medications and ice to relieve pain and reduce inflammation, stretching and strengthening exercises and modifying the activity that produces the symptoms. These may be carried out at home, though occasionally referral to a physical therapist or athletic trainer may be indicated. Occasionally, your physician may recommend bracing or casting to help rest the inflamed tissue that is repeatedly getting pinched. Surgery may be required if symptoms persist despite conservative treatment. This may be done with or without the use of arthroscopy to remove the bone spur, the inflamed tissues or chronic scar tissue.

#### **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.
- Topical Ointments may be of benefit.
- Stronger 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, 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 weeks despite treatment
- If you have surgery any of the following occur:
  - You experience pain, numbness, or coldness in the foot and ankle
  - Blue, gray or dusky color appears in the toenails
  - Increased pain, swelling, redness, drainage or bleeding in the surgical area.
  - Signs of infection (headache, muscle aches, dizziness, or a general ill feeling with fever)
- New, unexplained symptoms develop. Drugs used in treatment may produce side-effects.

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