

## **Ankle Posterior Impingement (Os Trigonum Syndrome)**

Posterior ankle impingement is an uncommon problem that results from activities that utilize excessive pointing of the toes (or straightening of the ankle), most commonly dancing and ballet. Posterior refers to the back side of the ankle. Impingement means to collide, impact, smash or strike, and can be related to pinching, especially in this context.

There are two locations and three types of ankle impingement. This problem can occur in the front of the ankle or in the back of the ankle. Although the more common type is in the front, it is related to past ankle sprains or fractures. Posterior impingement is more often associated with overuse. Usually, patients with this problem have an anatomic variant called an os trigonum, which is some extra bone behind the ankle bone. This bone can become inflamed and rub against some tendons and even cause tendon tears.

### **Symptoms**

Symptoms of posterior ankle impingement include:

- Pain with activity, not at rest
- Pain behind the ankle but in front of the Achilles tendon
- Pain when the ankle is bent down or straightened

### **Diagnosis**

The diagnosis is based on history of pain and the physical exam. An X-ray and MRI can be done to see the os trigonum and to determine if there are any tendon injuries.

### **Treatment**

If posterior ankle impingement is diagnosed, the first treatment is physical therapy and rest from the offending activity. Occasionally, a walking boot or cast can be used to limit motion at the ankle and decrease the inflammation. Ice and anti-inflammatory medications can be useful as well.

If conservative treatment fails to return an athlete to sport, then surgery to remove the os trigonum and to clean out scar tissue can be performed. Any treatment for injured tendons can also be done at that time.