Iselin Disease (Apophysitis of the 5th Metatarsal)

Iselin disease is painful irritation and inflammation of the apophysis (growth plate) at the base of the 5th metatarsal (foot bone), where one of the calf muscles inserts. In a child, the bones grow from areas called growth plates. The growth plate is made up of cartilage, which is softer and more vulnerable to injury than mature bone. Iselin disease is most often seen in physically active boys and girls between the ages of 8 and 13. It is most common in children involved in soccer, basketball, gymnastics and dance.

Causes

Iselin disease is an overuse injury caused by repetitive pressure and/or tension on the growth center at the base of the fifth metatarsal. Running and jumping generate a large amount of pressure on the forefoot. Tight calf muscles are a risk factor for Iselin disease because they increase the tension on the growth center.

Symptoms

Your child will complain of pain along the outer edge of the foot that is worse with activity and improves with rest. They may limp or walk on the inside of the foot. The growth center may be enlarged, red and painful to the touch.

Diagnosis

Your doctor can diagnose Iselin disease based on a review of your child’s symptoms and physical examination of the foot. X-rays are not required to make the diagnosis, though your doctor may order x-rays to evaluate for other causes of foot pain. X-rays will show the growth center, but the inflammation (apophysitis) cannot be seen on an x-ray.

Treatment

Your child will need a short period of rest from painful activities in order to take pressure off the growth center and allow the inflammation to resolve. Ice is very helpful in reducing pain and inflammation. Apply ice for 10-15 minutes as often as every hour when sore. Do not use ice immediately before activity. It is very important to stretch tight calf muscles to relieve tension on the growth center. If rest, ice and stretching do not relieve the pain, your doctor may prescribe an anti-inflammatory medication. Shoes that fit well and have good arch support can decrease the pain. Depending on your foot shape and structure, your doctor may recommend custom-molded shoe inserts. In severe cases, 2-4 weeks of immobilization in a walking cast or boot may be necessary.