



**NATIONWIDE CHILDREN'S**  
*When your child needs a hospital, everything matters.*

## **Helping Hand™**

*Health Education for Patients and Families*

# **Sports Medicine: Sesamoid Stress Fracture**

A sesamoid stress fracture is an overuse injury of the sesamoid bones in the foot. Sesamoid bones are bones that develop in the tendons. There are two sesamoid bones at the base of the big toe. The inner one is most often injured because most of the body weight is placed on it by standing and jumping. A stress fracture is an injury that occurs when the forces placed on a bone are greater than the bone can handle over time.

## **Signs and Symptoms**

- Foot pain with weight bearing activity like standing, walking, running, jumping, dancing
- Limping in severe cases
- Pain trying to lift the big toe
- Tenderness and sometimes swelling under the big toe

## **Increased Risk**

- Large or abnormally shaped sesamoid bones
- Sports that require jumping from heights or repeated jumping or standing on the balls of the feet (basketball, ballet, long-distance running)
- Poorly fitting footwear
- Poor physical conditioning (strength and flexibility)

## **Treatment**

- Medicine
  - Anti-inflammatory medicines, such as ibuprofen (Motrin® or Advil®) or naproxen (Aleve®), may be recommended. Take these as directed by your health care provider.
  - Other minor pain relievers, such as acetaminophen (Tylenol®).

- Use of cold
  - Cold should be applied for 10 to 15 minutes every 2 to 3 hours for swelling and after any activity that makes symptoms worse. Use ice packs or an ice massage.
- Rest
  - Changing the activity that caused the problem to occur or resting may be necessary.
- Orthopedic aids
  - In more minor cases, using padding, bracing, or taping the toe may provide relief.
  - A cast, walking boot, or a stiff-soled shoe (with or without arch support) may be required for more severe injuries. Keeping off the foot with the use of crutches may be advised.
- Rehabilitation
  - Rehab with a physical therapist or athletic trainer may be prescribed to help strengthen the muscles in the lower leg and foot.
- Surgery
  - In rare cases where other treatment may fail, surgery may be needed.

## How to Prevent

- Proper warm-up and stretching before practice or competition.
- Use proper technique.
- Maintain good ankle and leg flexibility and strength.
- Wear shoes that are proper size and fit.

## When to Call the Doctor

Call your doctor, health care provider, or the Sports Medicine team at (614) 355-6000 if:

- Symptoms get worse or do not improve in 6 weeks, despite treatment.
- If any signs of infection develop:
  - Pain
  - Fever
  - Warmth
  - Headaches
  - Increased swelling
  - Muscular aches and weakness
  - Fatigue
  - Redness
- New, unexplained symptoms develop.

**To schedule an appointment with Sports Medicine, visit [NationwideChildrens.org/SportsMedicineScheduling](https://www.nationwidechildrens.org/sports-medicine) or scan this code with your camera phone.**

