



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

Helping Hand™

Health Education for Patients and Families

Sports Medicine: Metatarsal Stress Fracture

A metatarsal (meh-tah-'TAR-sul) stress fracture is a break in the foot which involves one or more of the long foot bones (metatarsals). It is caused by intense exercise or repeat pressure on the foot. The stress on the bone exceeds the bone's ability to heal and repair. This breakdown results in a stress or fatigue fracture. This is the second most common bone to get a stress fracture in athletes. This usually follows a sudden change in training or performance schedule.

Signs and symptoms

- pain or ache
- bruising in the foot (uncommon)
- tenderness or swelling in the foot
- weakness and unable to bear weight on the foot

Increased risk

- having had a stress fracture before
- military recruits and distance runners
- bony irregularities (including osteoporosis and tumors)
- metabolic disorders, hormone problems and nutritional deficiencies
- females when there is loss of or irregular menstrual periods
- poor physical conditioning (strength and flexibility)
- sudden increase in the duration, intensity, or frequency of physical activity
- poor footwear with poor shock-absorbing capacity
- running on hard surfaces
- poor leg position, flat feet

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®), may be used.
- Use of cold
 - Cold is used to relieve pain and reduce swelling. Cold should be applied for 10 to 15 minutes every 2 to 3 hours and after any activity that makes symptoms worse. Use ice packs or an ice massage.
- Crutches, activity and other
 - A boot should be used to relieve stress on the bone or crutches may be used to protect the bone.
 - Weight-bearing activity should be stopped until the bone heals. Cross-training, like swimming or biking may be permitted in some cases.
 - Menstrual, nutritional and metabolic issues need to be identified and treated to help healing and prevent another fracture.
 - Rehabilitation with a physical therapist or athletic trainer may be helpful to increase strength and flexibility with supervised return to activity.

This condition is usually curable, with treatment, within 6 to 12 weeks.

How to prevent

- Correct warm-up and stretching before practice or competition.
- Maintain suitable conditioning, muscle strength, endurance and flexibility.
- Wear proper footwear; replace shoes after 300 to 500 miles of running.
- Slowly increase activity and training.
- Fix metabolic and nutritional disorders.
- Wear cushioned arch supports for runners with flat feet.

When to call the health care provider

Call your health care provider or the **Sports Medicine team** at **614-355-6000**:

- If symptoms worsen or do not improve after 2 weeks of treatment or new symptoms develop.

**To schedule an appointment with Sports Medicine, visit
NationwideChildrens.org/SportsMedicineScheduling or scan this code with your camera phone.**

