



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

Helping Hand™

Health Education for Patients and Families

Sports Medicine: Stress Fracture

A fracture is a broken bone. A stress fracture is a complete or incomplete break in a bone. It is caused by repetitive activity. The lower leg and the foot are the most common areas for stress fractures. They also can happen in other areas of the body such as the arms, hips, spine, or ribs.

Signs and symptoms

- pain and tenderness in just one specific area of bone
- swelling
- growing, continued pain that develops over a period of weeks
- weakness and unable to bear weight on the injured area

Increased risk

- sudden increase in the length, intensity, or frequency of physical activity
- poor physical conditioning (strength, flexibility and balance)
- previous stress fracture
- loss of, or abnormal, menstrual periods in females
- metabolic disorders, hormone problems and nutrition disorders
- bone health issues or bony defects (including osteoporosis, tumors, osteopenia)
- low body mass index (BMI)
- training on hard surfaces or worn out equipment (ex. running shoes with more than 500 miles of wear)

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 cold
 - 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.
- Orthopedic aids
 - A boot, splint, cast or brace may be used to allow bones to heal without moving.
- Rehabilitation (Rehab)
 - After a period of rest, rehab may be needed. This will help you regain motion in joints or build strength in muscles around the joint.
- Surgery
 - Rarely, surgery may be needed for fractures at a high risk of not healing (for example, hip or joint fracture).

How to prevent

- Do correct warm-up and stretching before practice or competition.
- Maintain suitable conditioning, strength, flexibility, endurance, and cardiovascular fitness.
- Use proper technique with training and activity. Gradually increase amount and intensity of training and activity.
- Wear proper footwear (for example, change shoes after 300 to 500 miles of running).
- Correct hormonal, metabolic and nutrition disorders.
- Use orthotics for extremely 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 get worse or do not improve in 2 weeks despite treatment
- there is severe and on-going pain or swelling
- blue or gray skin appears below the fracture or under the nails; or for numbness below the fracture

To schedule an appointment with Sports Medicine, visit [NationwideChildrens.org/SportsMedicineScheduling](https://www.nationwidechildrens.org/SportsMedicineScheduling) or scan this code

