

Stress Fracture of the Foot and Ankle

A stress fracture is a small break or crack in the bone. Stress fractures may develop from overuse, such as from high-impact sports like football, distance running or basketball.

Most stress fractures occur in the weight-bearing bones of the foot and lower leg. Research shows that athletes participating in tennis, track and field, gymnastics, dance, and basketball are at an increased risk for stress fractures. In all of these sports, the continued stress of the foot striking the ground can cause problems.

Rest is the best remedy to recover from a stress fracture.

A stress fracture is an overuse injury. When muscles are overworked, they are no longer able to lessen the shock of repeated impacts. When this happens, the muscles transfer the stress to the bones. This can create small cracks or fractures.

The most common sites of stress fractures are the second and third metatarsals of the foot. Stress fractures are also common in the heel, the outer bone of the lower leg, and the navicular, a bone on the top of the mid-foot.

Stress fractures usually occur when you increase your high-impact activity by:

- Frequency (how often you exercise)
- Duration (how long you exercise)
- Intensity (your level of exertion)

People who do not exercise can also have stress fractures. If osteoporosis or other disease has weakened bones, normal daily activities may result in a stress fracture. This is called bone insufficiency. It is one of many factors that can increase your risk for stress fracture.

Conditioning

Doing too much too soon is a common cause of stress fractures. For example, runners who are confined indoors for the winter may want to pick up where they left off at the end of the previous season. Instead of starting slowly, they try to match their previous mileage. Because of the lower level of conditioning, muscles become fatigued faster. The result could be a stress fracture in the foot or ankle. Those who are new to exercise and try to do too much too soon are also at risk.

Wearing Proper Footwear

Improper sports equipment, such as shoes that are too worn or stiff, can contribute to stress fractures. A change of surface, such as going from a grass tennis court to one of clay, or a change from an indoor to an outdoor running track, can also increase the risk.

Your risks increase if you have these symptoms:

- Pain that starts at a low threshold and increases with physical activity, and lessens with rest
- Pain that becomes more serious and happens with regular, daily activities
- Inflammation on the top part of the foot or the outside of the ankle
- Touching the site is painful
- Bruising

Initial Visit

On your initial visit, your podiatrist will ask you about your work, your physical activities, and any prescription medications you take. It is important that your podiatrist understands what your medical history is.

After going over your conditions and medical history, your podiatrist will physically examine your feet and ankles.

Tests

Stress fractures are almost impossible to locate on X-rays until they have actually started to heal. Your podiatrist may order a bone scan or a magnetic resonance imaging (MRI) scan, which are more sensitive than an X-ray and can show stress fractures early.

How to Treat

If you think you have a stress fracture in your foot or ankle, stop what you are doing and rest. Do not ignore the pain as you may have a serious break. Place an ice pack on the area and elevate your foot above the level of your heart. Try not to put weight on your foot until after you see a podiatrist.

To alleviate pressure on your lower extremities, your podiatrist will probably recommend wearing protective shoes. This may be a rigid-soled shoe or a removable short-leg fracture boot.