

Stress Fractures

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One of the most common injuries in sports is stress fracture. Overcoming an injury like a stress fracture can be difficult, but it can be done. Here are some facts about stress fractures from the American Academy of Orthopedic Surgeons.

What is a stress fracture?

A stress fracture is an overuse injury. It occurs when muscles become fatigued and are unable to absorb added shock. Eventually, the fatigued muscles transfer the overload of stress to the bone, causing a tiny crack called a stress fracture.

What causes a stress fracture?

Stress fractures are often the result of increasing the amount or intensity of an activity too rapidly. They can also be caused by the impact of an unfamiliar surface (a tennis player who has switched from a soft clay court to a hard surface); improper equipment (a runner using worn or less flexible shoes); and increased physical stress (a basketball player who has had a substantial increase in playing time).

Are women more susceptible to stress fractures than men?

Medical studies have shown that female athletes seem to experience more stress fractures than their male counterparts. Many orthopedic surgeons attribute this fact to a condition referred to as “the female athlete triad” – eating disorders (bulimia or anorexia), amenorrhea (infrequent menstrual cycle) and osteoporosis. As a female’s bone mass decreases, the chances of getting a stress fracture increase.

Where do stress fractures occur?

Most stress fractures occur in the weight bearing bones of the lower leg and foot. More than 50 % of all stress fractures occur in the lower leg.

What activities make athletes most susceptible to stress fractures?

Studies have shown that athletes participating in tennis, track and field and gymnastics and basketball are very susceptible to stress fractures. In all of these sports, the repetitive stress of the foot striking the ground can cause trauma. Without sufficient rest between workouts or competitions, an athlete risks developing stress fractures.

How are stress fractures treated?

The most important treatment is rest. Individuals need to rest from the activity that caused the stress fracture and engage in a pain free activity during the six to eight weeks that it takes most stress fractures to heal.

If the activity that caused the stress fracture is resumed too quickly, larger, harder-to-heal fractures. Re-injury also could lead to chronic problems where the stress fracture might never heal properly.

Preventing Stress Fractures

Here are some tips developed by the AAOS to help prevent stress fractures:

- Slowly increase any new sports activity. For example, do not immediately start running five miles a day; instead, gradually build up your mileage on a weekly basis. Running can also be done on alternate days. Try alternating the days that you run on a weekly basis.
- Maintain a healthy diet. Make sure you incorporate calcium-rich meals in your meals.
- Use proper equipment. Do not wear old or worn running shoes.
- If pain or swelling occurs, immediately stop the activity and rest for a few days. If continued pain persists, see an orthopedic surgeon.

It is important to remember that if you recognize the symptoms early and treat them appropriately, you can return to sports at you normal playing level.