

Stress fractures: Should it hurt like this when I run?

We are only a few weeks away from the Amway River Bank Run and the culmination of all of your hard work over the past several months. As you continue to increase the mileage and intensity of your training, be mindful of your aches and pains so they can be addressed appropriately and you can successfully cross the finish line on May 11.

In this article I would like to discuss stress reactions and stress fractures. That's because recently I have examined a few runners with complaints of bone pain that I diagnosed as either a stress reaction or stress fracture.

So what exactly is a stress reaction or stress fracture? These are injuries that occur in the bone due to overuse and are typically seen in athletes who perform repetitive motions such as running, jumping or other high-impact activities. The injury can stem from a quick increase in intensity of training, poor conditioning, abnormal running or jumping mechanics, muscle imbalance/weakness, as well as internal factors such as poor calcium intake, low vitamin D levels, poor diet and weak bones.

These injuries occur because of microtrauma to the bones. Typically, the body is able to take some level of stress through the bone, but if the microtrauma is too extensive and the body cannot handle it, then a stress reaction or stress fracture may occur. A stress reaction is a precursor to a stress fracture. The way I describe both of these diagnoses to athletes is through an analogy using a paper clip. If you take a paper clip and bend it back and forth, the paper clip starts to get hot and cannot handle the stress. This would be an example of what occurs in a stress reaction. If you bend the paper clip too much, it will break. This is what occurs in a stress fracture.

The most common locations for stress reactions/stress fractures are in the lower extremities. The majority will occur in the tibia (shin bone), foot bones and ankle bones. Stress fractures can also occur in the femur and pelvis, which causes pain in the groin. Typically, there is no significant trauma that causes the pain associated with a stress fracture. The pain is insidious, meaning it may seem subtle at first but can be very harmful. Athletes will typically notice pain right when they start running and the pain will continue during the activity. The pain usually subsides when you stop running, but if the damage is significant enough, the pain can linger. It is usually in an isolated area along the bone. There may or may not be swelling.

The majority of stress fractures are treated conservatively. It's important to address the injury because it could require more lengthy and involved treatment if it progresses. Typically, the treatment consists of immobilization in a walker boot, possible use of crutches, bracing and, unfortunately, stopping all high-impact activity. A treatment regimen of 4-6 weeks will typically be sufficient. It's very difficult to tell a runner that he or she must stop running and training due to a stress fracture. That's why I always emphasize the importance of treating injuries in the early and acute phase. Otherwise, the injury could

turn into something more serious that could take you out of sport activities for a longer period time and possibly cause long-term damage.

We at Spectrum Health Orthopedics hope that your training is going well and has been a wonderful experience thus far. But if you have any questions or are struggling with any lingering injuries or pains, the experienced sports medicine providers at Spectrum Health Orthopedics would be pleased to help. You can call us at (616)267-8860 or learn more on our [website](#).