Stress Fracture

When too much stress is put on the foot, as in running and jumping sports, the center shaft of the bones of the forefoot is very susceptible to stress *fractures* (break in bones) because of thinness of this bone. This injury is more common if osteoporosis is present or if inadequate running shoes are used. Shoes should be used which adequately cushion the foot to absorb the shocks of the activity participated in. Stress fractures are very common in competitive female runners who develop these small cracks on the surface of the bones in their legs and feet. The women most likely to suffer these injuries are those who restrict food and those who have irregular periods.

Stress fractures usually start out as a minor discomfort in the foot or leg. The fracture often occurs near the end of a long run. Usually the pain goes away with rest. On the next day, the pain returns earlier in the run. If an athlete notices that it hurts to touch just one spot on a bone and then stops running for a week, they can return to running quickly. But usually the pain is ignored and a stress fracture develops. The athlete now has to avoid the hard pounding of running, but can ride a bike or swim for exercise until the fracture heals in 6 to 12 weeks. The most common sites for stress fractures are the bones in the front of the feet and the long bone of the lower leg, but running can cause stress fractures anywhere, even in the pelvic bones.

DIAGNOSIS

Usually the diagnosis is made by history. The bone involved progressively becomes sorer with activities. X-rays may be *negative* (show no break) within the first two to three weeks of the beginning of pain. A later x-ray may show signs of healing bone (*callus formation*). A bone scan will usually make the diagnosis earlier.

TREATMENT & HOME CARE INSTRUCTIONS

- Treatment may or may not include a cast or walking shoe. When casts are needed the use is usually for short periods of time so as not to slow down healing with muscle wasting (*atrophy*).
- Activities should be stopped until further advised by your caregiver.
- Wear shoes with adequate shock absorbing abilities.
- Alternative exercise may be undertaken while waiting for healing. These may include bicycling and swimming, or as your caregiver suggests.

IF YOU DO NOT HAVE A CAST OR SPLINT:

- You may walk on your injured foot as tolerated or advised.
- Do not put any weight on your injured foot until instructed. Slowly increase the amount of time you walk on the foot as the pain allows or as advised.
- Use crutches until you can bear weight without pain. A *gradual increase* in weight bearing may help.
- Apply ice to the injury for 15 to 20 minutes each hour while awake for the first 2 days. Put the ice in a plastic bag and place a towel between the bag of ice and your skin.
- Only take over-the-counter or prescription medicines for pain, discomfort, or fever as directed by your caregiver.
- If your caregiver has given you a follow-up appointment, it is very important to keep that appointment. Not keeping the appointment could result in a chronic or permanent injury, pain, and disability. If there is any problem keeping the appointment, you must call back to this facility for assistance.

SEEK IMMEDIATE MEDICAL CARE IF:

- Pain is becoming worse rather than better, or if pain is uncontrolled with medicine.
- You have increased swelling or redness in the foot.

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