Podiatry-At-A-Glance

CHICAGO PODIATRIC SURGEONS

A GUIDE TO STRESS FRACTURES

OVERVIEW

Stress fractures are a type of injury. These fractures which may be partial or complete, result from repetitive subthreshold loading that, exceeds the bone's intrinsic ability to repair itself. The repetitive forces of running or jumping and even benign activities such as walking, can cause these injuries. Stress fractures can occur in any bone, but most often afflict the weight-bearing bones of the lower let and foot.

Early Stress Fractures are difficult to detect using plain film. The magnification abilities of digital X-rays are helpful.

COMMON STRESS FRACTURES OF THE FOOT

- Metatarsal 2nd or 3rd
- Navicular
- Calcaneus

SYMPTOMS

- Localized bone pain
- Pain exacarbated with weight bearing
- With or without localized edema

DIAGNOSIS

- History of localized bone pain and swelling without specific trauma.
- Plain film x-ray are usually unrevealing for 10-14 days, at which time a periosteal reaction may be visualized.
- **Digital x-rays** are superior to plain film due to magnification abilities which allow identification of even very fine fractures.
- **Diagnostic ultrasound** can detect peri-fracture edema in 24 hours.
- CT and MRI are better than plain films and can be used to evaluate the extent and direction of a stress fracture but are usually not used for initial evaluation.
- **Triphasic Nuclear Bone Scans** are the gold standard for difficult cases.

After two weeks a periosteal reaction may be detected on X-rays.

TREATMENT

Stress fractures are notoriously under diagnosed and under treated. This injury carries the risk of complete fracture, displacement, nonunion, and avascular necrosis, and may result in chronic disability. R.I.C.E (Rest. Ice. Compression. Elevation.) is always a good first step.

- Fracture-healing boot or cast for 4-6 weeks.
- Running and jumping should be avoided for an additional two weeks
- Orthotics: **Reinjury is common, especially among athletes. When returning to activities the use of orthotics and proper footwear will help prevent future occurrences.**

If left untreated, stress fractures may develop into complete fractures.

Chicago Podiatric Surgeons is dedicated to providing the best possible podiatric care for your patients. This care includes answering patient questions and ensuring they understand their treatment options. Of course, the understanding of treatment options starts with you, the primary care physician. We hope that you find this overview of common podiatric disorders to be helpful in the care of your patients, and that you look forward to receiving future topics from us.

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