

## Stress Fractures

Stress fractures are also known as march fractures, fatigue fractures, or spontaneous fractures. The lower extremity is the most common site for stress fractures, although in some sports such as baseball and gymnastics they may occur in the upper extremity.

### Signs & Symptoms:

- Point tenderness
- Loss of motion at the joint
- Swelling
- Pain with weight bearing activities

### Contributing factors:

- A rapid change in the frequency or duration of an activity
- Altered stress distribution to bone as a consequence of muscle fatigue
- Change in environment (running surfaces, shoes)
- Returning to sport too rapidly after injury
- Anatomic considerations i.e. postural or foot conditions (flat feet)
- Osteopenia or Osteoporosis
- Presence of the Female Athlete Triad (Eating Disorder, Amenorrhea, and osteopenia)

### Treatment:

Treatment varies with each individual based on activity, site of injury and severity. The following is basic treatment and may be altered for individual rehabilitation programs.

- Rest or modification of activity
- Consult Physician
- Correction of predisposing anatomic abnormalities (i.e. orthotics)
- Ice Therapy
- Improve flexibility and strengthening the surrounding musculature.
- Pain management. Ibuprofen or other anti-inflammatories are often avoided because of a theoretical risk of delayed bone healing. Consult your physician for proper dosage
- Development of a graduated return to play program when cleared to do so by your physician or certified athletic trainer
- Casting or immobilization is not normally required but may be used for some fractures (i.e. metatarsal fracture)
- Consumption of the RDA of Calcium and Vitamin D to enhance bone health
- Consider dietary, bone density, and laboratory evaluation with recurrent stress fractures or atypical stress fractures.