



# University Orthopaedic Center

## Sports Medicine & Athletic Injuries Tip Sheet



### What are stress fractures?

On a daily basis, your body continues to work to replace bone that is reduced or broken down by just normal wear and tear. When you overuse a bone or continue a repetitive movement such as running long distances, stress fractures can occur. These stress fractures, which are tiny cracks in your bone, are caused when muscles become fatigued and can no longer absorb added shock.

Besides repetitiveness, stress fractures are often caused by increasing the duration, intensity or frequency of physical activity without adequate periods of rest. Although they can occur in any bone in the body, the lower extremity weight bearing bones are most susceptible. Sometimes, other physiological occurrences in the body attribute to stress fractures, such as nutritional deficiencies, sleep deprivation and bone disorders.

#### **How will you know if you have a stress fracture?**

Stress fractures produce pain in just the area above the bone where the fracture has occurred. Activity usually makes it worse, and rest relieves the pain. Bone scans and MRIs can be used to detect the severity of the fracture and the course of action to treat these fractures.

*For answers to more frequently asked questions, go to UOC's Ortho Q & A website page.*



### Treating lower extremity stress fractures\*:

Rest is first and foremost followed by increasing the level (intensity) and type of activity:

#### Activity Progression

1. Non-weightbearing, non-impact (swimming or biking)
2. Weightbearing, non-impact activity (stair machine or a treadmill)
3. Weightbearing, impact activities (jogging)

#### Intensity Progression

1. Low intensity, short duration.
2. Low intensity, increased duration.
3. Higher intensity, short duration.
4. Higher intensity, increased duration.
5. Advance to next activity level.

\*2006 American Orthopaedic Society for Sports Medicine



Stress fractures can be prevented when associated with physical activity by learning the proper way to train and knowing when too much is enough.