

STRESS RESPONSE & FRACTURE

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What are Stress Responses and Stress Fractures in Bones?

A stress fracture is a broken bone brought on by overuse. They are especially common in the feet, ankles and shins (tibia) but also occur in any bone that is being overused in sports such as cross country, soccer, or track. Most broken bones occur with high-energy impacts on bones, however, stress fractures occur with repeated small impacts or stresses to bones.

Much like the plastic in a pen will weaken with repetitive bending, repetitive pounding on the tibia (shin bone) from running can lead to stress reaction and stress fracture.

How to Recognize Stress Reactions and Stress Fractures

The determining feature of a stress response or stress fracture is pain and tenderness localized at one point on the bone. If you are having recurrent local pain following running or other repetitive exercises, it is recommended you come in to the doctor for further examination of the affected body part. X-ray and MRI of the area of pain can be used to confirm the existence of a stress response or stress fracture in a bone.

How to Treat Stress Fracture or Stress Response

If a bone shows signs of stress response but has not completely progressed to stress fracture, treatment may only require activity modification. Time off from the activity leading to overuse can lead to improvement of symptoms and resolution of the stress response.

If the bone has progressed completely to a stress fracture, more aggressive treatment may be necessary such as immobilization with a cast or the use of a walking boot to decrease pressure on the fracture site.

Stress fractures take an average of 8 weeks to heal from the time of their development. It is therefore important to be proactive with treatment when isolated areas of sharp pain are felt in order to decrease the chance of a stress response developing into a stress fracture.