PT & Me
YOUR GUIDE TO PHYSICAL THERAPY

Ankle Conditions: STRESS FRACTURE

A stress fracture is a small crack in the bone from chronic overuse. Most stress fractures occur in the lower leg and foot. They can also occur in the hip and other areas.

Causes

A blow to the bone does not cause a stress fracture. Rather, it is typically caused by repeated stress or overuse. Some causes are:

- Increasing the amount or intensity of an activity too quickly (most common)
- Switching to a different playing or running surface
- Wearing improper or old shoes

Stress fractures can worsen by continued physical stress. Smoking can also make stress fractures worse because it interferes with bone healing.

Risk Factors

A risk factor is something that increases your chance of getting a disease or condition. Risk factors for a stress fracture include:

- Gender: female
- Certain sports, especially involving jumping or running:
  - Tennis
  - Track, especially distance running
  - Gymnastics
  - Dance
  - Basketball
- Amenorrhea (women only)
- Reduced bone thickness or density
- Poor muscle strength or flexibility
- Overweight or underweight
- Poor physical condition

Symptoms

Symptoms include:

- Localized pain on the bone
- Pain when pressure is applied directly over the fracture and the area around it
- Pain when putting stress on the affected leg
- Swelling and warmth at the injury site

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Diagnosis

The doctor will ask about the symptoms and medical history, and examine the injured area for localized pain and swelling. Tests may include:

- X-rays
- MRI scan
- Bone scan

Treatment

Rest is the first thing you can do for a stress fracture. This includes avoiding the activity that caused the fracture and any other activities that cause pain. Rest time required is at least 6-8 weeks. Once you are ready to restart activity your physician may prescribe physical therapy.

The following is a common progression for physical therapy treatment:

- Begin with non weight–bearing activities, such as swimming, cycling, use of an Alter-G treadmill etc.
- Next, weight-bearing, nonimpact exercise may be prescribed.
- Gradually, low-impact activity, starting with walking, will be added to your treatment.
- Once you can do fast-paced walking with no pain, your physical therapist will give higher impact activities, such as light jogging.
- This gradual progression will continue until you have reached your pre-injury activity level and no longer feel tenderness of the bone.

Prevention

To reduce your chance of having a stress fracture:

- Wear proper footwear.
- Run on a softer surface, such as grass, dirt, or certain outdoor tracks.
- Gradually increase the amount and intensity of an activity.
- Do not overdo any activity.
- Reduce weight to reduce stress on the bones.
- Avoid smoking.

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