



PODIATRY  
MACKAY

## Medial Tibial Stress Fracture

### What is it?

As the name suggests, a Medial Tibial Stress Fracture is characterised by a small micro-fracture in the outer cortex of the shin bone (Tibia). Although stress fractures can occur anywhere along the Tibia, they are most seen along the medial border due to the high repetitive stresses that the area is subject to while running.

Symptoms of a stress fracture are like those of shin splints however subtle differences are often attained and are vital for a correct diagnosis. The most common symptoms are shin pain that never warms up (opposite to shin splints), night pain (not present in shin splints) and a focal point of pain (as opposed to a diffuse area of the Tibia). The Stress fractures most commonly affect the middle-distal (lower) 1/3 of the medial border of the Tibia.

### Why did I get it?

Medial Tibial Stress Fractures almost exclusively occur in active individuals with a heavy exercise program. The most common risk factors for the condition are.

- Poor biomechanics
- Incorrect footwear
- Over training
- Sudden increase in activity
- Hard training surface
- Muscle tightness



### Symptoms:

The main symptom is **pain in the shin area**. The pain tends to be in the middle and lower shin and on the inner (medial) half. Pain first comes on after running or exercising. However, over time, the pain can come on during running or exercising.

### How is it diagnosed?

A thorough clinical examination/history will generally be sufficient for the diagnosis of a Medial Tibial Stress Fracture. You will however be referred for an x-ray +/- bone scan to determine the severity of the fracture.

### Possible treatments:

- Rest and ice
- +/- crutches (non-weight bearing)
- Pneumatic air brace
- Improve biomechanics
- Footwear advice
- Custom Orthotics

### Prognosis:

The prognosis of a Medial Tibial Stress Fracture is largely dependent on the severity of the fracture and the compliance of the patient. Return to sport is recommended no sooner than after 4-6 weeks of no bony tenderness over the area of concern. The return needs to be gradual to give the bony and soft tissue structures time to adapt.