

STRESS FRACTURE

Stress fractures are an overuse injury that we see most commonly in the leg. 50% of all stress fractures are found in the weight bearing bones whether it be of the femur (thigh bone), tibia (shin bone) or in the foot itself.

A stress fracture is the result of excessive stress through a particular region. Soft tissues in the area get overloaded and transfer their stress to the bone resulting initially in a stress reaction in the bone. With continued load a stress fracture will appear.

Generally stress fractures occur when an athlete has a sudden increase in training loads. Other factors such as a change in footwear, training on unfamiliar surfaces or increase in intensity of training can also result in this injury.

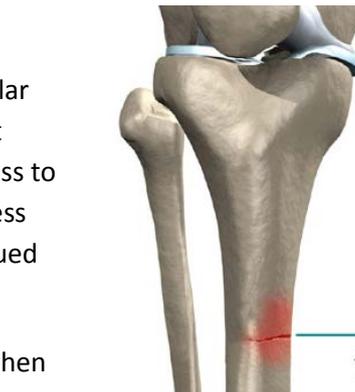
Easily the most common sport we tend to see stress fractures in is running due to repetitive impact of the foot striking the ground. Other common sports include tennis, basketball & gymnastics.

SIGNS & SYMPTOMS

- Pain worsening with activity
- Pain eases with rest
- Swelling may be present over the bone

If the athlete continues to train through pain the severity of the symptoms will worsen to the point where there may be pain at rest & with simple activities such as walking.

The first step to diagnosing a stress fracture is via xray, however in the early stages a stress fracture may not be seen on plain xray.



Tibial stress fracture



If the xray is clear but your physio or doctor still suspects a stress fracture you may be sent for further investigation such as a CT scan or isotopic bone scan.

Research has shown that females tend to be at higher risk of suffering from a stress fracture than males. This is due to what's known as the 'female athlete triad' encompassing anorexia/bulimia, amenorrhea (absence of menstrual cycle) & osteoporosis. As bone density decreases the chances of a stress fracture developing increases.

MANAGEMENT

The first stage of treatment when a stress fracture is suspected is rest from any aggravating activity.

Stress fractures take 6-8 weeks to heal completely and during this period pain free exercise is advised.

If the athlete returns to activity too soon they are at risk of developing a larger fracture or potentially causing non union of the fracture which can lead to ongoing chronic problems.

Other physiotherapy management can involve management of pain and inflammation via use of electrophysical therapy, dry needling & icing. Advice regarding appropriate exercises and activity modification is also important to the rehabilitation process.

In the longer term looking at predisposing factors such as lower limb biomechanics, footwear and training loads can assist with preventing re-occurrence.

Ross and Emma specialise in the treatment of sports and musculoskeletal injuries. If you would like to make an appointment please contact us on **9328 3822**.

