

## STRESS FRACTURE

Repetitive, unrestricted, low-grade trauma to a bone can result in a stress fracture. This can be from a training error in sports putting pressure on one particular area of the foot. It can also be from overuse of a muscle, which causes the muscle to be inflamed at its origin, and can weaken the bone there, or it can be from various biomechanical deformities where one bone may sit in a different relative position than another and therefore have more stress applied to it.

Most commonly stress fractures are secondary to excessive walking, running, trauma, or can also be due to an injury.

Often stress fractures occur in the metatarsal heads and there are several reasons for this. With age we increasingly lose our fat padding in the bottom of our foot which is our cushion. As this occurs our metatarsal heads take on more pressure. Any little deformity which is present shows up as this fat pad atrophy takes place. Several disease states enhance fat pad atrophy, such as diabetes and rheumatoid arthritis, as well as other forms of arthritis.

When a stress fracture occurs, we will treat these with casting, padding, change of lifestyle or an exercise program. Often treatment consists of any combination of the above methods of therapy. Left untreated, stress fractures can become major problems with complications such as failure to heal, or they can be become dislocated.

Many times after a stress fracture there is increased pressure on the bones around the bone that has broken. In the ensuing years after a stress fracture, it is not unusual to have repeat stress fractures. Inserts or orthotics are often used to alleviate the pressures that may cause these. Certainly, after repeat stress fractures, it is necessary to mechanically balance the foot to slow down the predisposition to form stress fractures.

We will determine the most appropriate treatment for you based on your stress fracture. It is most important that you comply and follow through with the prescribed therapy to maximize the healing potential of the stress fracture.