THE DANCE CLINIC
HIGHETT PODIATRY

SHIN PAIN

Cause

Shin pain or 'shin splints' is a generalised term given to pain in the shin region, correct diagnosis is required to determine the best course of treatment for your shin pain. The 3 most common causes of shin pain include medial tibial stress syndrome, a tibial stress fracture or anterior compartment syndrome.

MTSS is caused by repetitive strain to the shin area and is the most commonly reported reason for shin pain. It results in pain running along the shin bone (tibia), the large bone in the lower leg. MTSS usually arises if a training load has been rapidly increased or poor technique is present. MTSS is caused by repetitive 'pulling' of the muscles that attach to the tibia that can lead to inflammation and micro tears in the muscle, even micro fractures in the bone if not given sufficient time to rest

Risk factors include:

- Dancing on improper surfaces like concrete
- Poor technique
- Reduced shock absorption during allegro work
- Rigid high arched foot
- Excessivepronation

Symptoms

- Pain and tenderness along the front of the shin
- Mild swelling at the front of the leg
- Pain increases with higher intensity activity jumps or running

Treatment

- Rest and ice
- Massage
- Dry needling
- Cupping
- Footwear alterations
- Technique control
- Orthotics

Cause

Anterior compartment syndrome is a condition of the lower legs caused by muscle swelling and subsequent increase in tissue pressure. There are a number of muscles that are located in the front of the shin with their main function being dorsiflexion of the foot; these muscles are; tibialis anterior, extensor digitorum longus, extensor hallucis longus and peroneus tertius. These muscles are all located within a thin membrane known as a fascia and together this is known as the anterior compartment. Anterior compartment syndrome occurs when this surrounding membrane becomes tight and inflexible leading to increased pressure within the compartment.

- Overuse of muscles often in association with a sudden increase in training load
- Poor biomechanics in particular increased pronation
- Training on hard surfaces
- Poor footwear
- Technique errors
- Fatigue
- Deconditioning
- Weight gain
- Limb length differences
- Previous
- injury or scarring

Symptoms

- Pain and tightness along outside of lower leg
- Pain usually increases with exercise and decreases with rest
- Ache and tightness around the muscles
- Chronic pain with continued exercise
- Rare cases may get weakness in leg and foot and pins and needles
- Pain not usually reproduced on direct muscle palpation

Treatment

- Soft tissue massage
- Ankle mobilization
- Dry needling
- Cupping
- Taping
- Orthotics
- Exercises to improve flexibility, balance and strength
- Activity modification
- Footwear changes
- Gradual return to activity program

Cause

A tibial stress fracture is a hairline fracture of the tibia that usually presents if MTSS continues for a period of time untreated. Symptoms of a tibial stress fracture are very similar to MTSS however there is often a very tender spot that will correspond to the fracture location. Unfortunately stress fractures do not always show up on xrays and further imaging such as MRI may be required for their diagnosis.

Treatment

Treatment for a stress fracture requires rest to allow the bone to heal. During this time it is still possible to work on some conditioning and strengthening work and our podiatrists are able to tailor a program suitable to your requirements. It will also involve determining the cause of the stress fracture to help minimise the risk of its re-occurrence.