

# Shin Splints – A Common Running Injury

## What Are Shin Splints?

Shin Splints is an *umbrella term* that encompasses several conditions that result in pain along the inside of the shin – most commonly related to running. The most common “shin splints” is caused by a condition termed “medial tibial stress syndrome” or *MTSS*, but it can also be caused by stress fractures of the tibia, or by vascular conditions such as compartment syndromes which are rarer but can be serious.

**MTSS**, which will be the primary focus of this blog given it is the most common, involves irritation and inflammation of the muscle attachments to the inside of the shin. The outer layer of the bone – called the periosteum – and the tendons that attach to it are generally the painful structures and this can be felt as a broad strip up and down the inside of the shin. Most commonly, MTSS is sore *first thing in the morning* and at the beginning of a run, but may *warm-up* as you get into the run. It can then be sore again as you fatigue or immediately after the run.

**Stress fractures** are less common but more serious and are caused by repeated overloading of the shin bone (tibia) with not enough time to repair – causing small fractures. This is felt as a more focal point of pain across the front of the shin. Stress fractures *rarely warm up* but instead *feel worse and worse* as a run goes on, and often lead to an ache afterwards and sometimes into the night.

**Vascular causes** such as compartment syndrome can also cause pain at the shin and are associated with increased pressure leading to reduced blood supply. They are often associated

with *pain, numbness, tingling, or weakness in the foot* which develops during a run, with resting almost immediately easing the symptoms. Depending on the severity this can also be a serious diagnosis but is rare.

*So which do I have?* If in doubt – speak to your physiotherapist who can accurately assess and diagnose the cause of your shin pain.

## **What Causes Shin Splints (MTSS)?**

*Doing too much, too quick!* Typically the cause of shin pain is a sudden or large increase in loading put through the shin, which for many people is frustrating as we know how exciting it is to get started with a new running or fitness program.

But the key here is to look to the *long-term* and make sure you build up to a *sustainable* level that your body can tolerate.

*Biomechanical factors* can also make a person more prone to shin pain, such as ankle stiffness, weakness in the leg, or poor single-leg stability. This can come from a variety of places and requires a *thorough assessment* to determine the factors that relate to you.

Other factors can be a change in running surface (from trail to road, or vice versa), change in footwear, or addition of speed work or hills.

## **What can I do?**

If you are thinking about running, or increasing how much you do, it is important to plan out plenty of rest and recovery between runs, and ensure you have a *gradual increase* over weeks-months rather than over days-weeks, to prevent shin pain from coming on.

If you have shin pain while running, you may need to adjust

how much you are doing and complete some exercises to optimise your running pattern. This may involve stretching, strength, and/or warm-ups for running and is best advised and *individualised for you* by your physiotherapist.

## What can my Physio do?

Your physio is a *movement specialist* and an expert dealing with musculoskeletal injuries, including running injuries. They can:

- Accurately assess and diagnose the nature and cause of your shin pain.
- Determine factors contributing to the pain, such as changes in loading, biomechanics, or past injuries.
- Provide advice and referrals for further investigations if required, such as X-rays.

*The fun stuff – work out how much you can continue to run, and formulate a running program to get you back on the track and beating PB's as quickly as possible.*

- Design a specific *exercise program*, which will likely incorporate an individualised *running-specific warm-up*, to address any areas of weakness or stiffness that could be contributing.
- Provide massage, mobilisations, taping or advise on foot-wear and support as required.
- Help *you* not only reduce pain but get back to *running more freely*.

In many cases, your physio can help you *continue to run* while you rehab the injury.

If you are someone who has begun running more through COVID

lockdowns and this relates to you or a friend – get in touch!  
We are here to help and open as an essential service while following strict hygiene protocols through COVID-19, as always.

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