

Shin Splints

Waikato Podiatry - Patient Information



What is it?

Shin splints is a common but very general term used to describe pain coming from the shin or lower leg area. Shin splints is not a specific diagnosis, and a more accurate diagnosis and treatment plan should be established to be most effective. Different tissue will respond to different treatments, so identifying what is primarily the cause of the pain is very important.

Pain Reduction

As with most conditions getting the correct diagnosis in the first place is so important. Accurate diagnosis of the origin of pain is very important to allow effective rest.

Occasionally, total rest is required, but often maintenance, exercise and fitness can be retained.

Pain reduction is achieved with relative rest, ice, stretching and strengthening, compression sleeves, address training errors.

What has caused it?

Foot position and function plays an important part in treating and managing shin pain. Excessive motion or uneven position of the foot will load certain areas in the shin more heavily than others. This needs to be addressed and can be done so with footwear selection, and careful orthotic modification.

There are lots of factors that can lead to this kind of problem such as:

- Training errors – ‘starting’ or suddenly increasing an activity. Often these activities involve sports like netball or running, especially high velocity on hard surfaces.
- Bio-mechanical problems – these involve a wide spectrum of problems that are usually related to poor leg and foot function, which contribute to the muscular overuse
- Running style – is sometimes involved in this condition and we can coach you to change this
- Poor equipment – such as old, unsuitable, or excessively worn shoes.
- Failure to rest and ignoring the signs of chronic painful Periostitis.
- Some people are prone to this type of problem due to their physical make up. Unfortunately, there isn't a lot you can do about this, except blame your parents!
- Sudden increases in intensity or duration of exercise
- Excessive muscle weakness or tightness
- Poor footwear selection and suitability eg/ using court shoes for long runs.
- Abnormal foot function

What is causing the pain?

Each case must be taken on its own merits, however, typically the cause of the problem can be broken down into three main categories. It's possible for several or all of these to happen at once.

Periostitis (inflammation of the bone covering)

This is the single most common cause of shin pain and is usually characterized by an exercise induced dull ache in one or both shins. Your bones are covered in a fine film called the Periosteum. The muscles attach to the bone through this and with increased activity and muscle overuse, the periosteum may become inflamed and very sore.

Bone strain/stress fracture: If the initial periostitis is ignored or the condition deteriorates, it may result in increased damage to the underlying surface of the bone. This can affect the rate of bone growth and repair. There are a range of destructive bone changes that may occur. Starting in the early stages with the less severe ‘stress reaction’, right up to the more serious, ‘stress fracture’ or fracture of the bone. It is difficult to distinguish exactly which one of these conditions exists. Early stress fractures rarely show up on X-Ray.

Muscle Compartment syndrome: There are 4 main muscle groups in the shin, and these are kept separate from each other by a ‘glad wrap like’ covering called Fascia.

The Fascia separate the leg into different compartments, hence the name compartment syndrome. During exercise, blood enters the working muscles and swells the compartment, making this become tight, and can cause pain. With compartment syndrome, the fascia does not stretch sufficiently, and this becomes a problem.

Long Term Solution

With 3 different categories of diagnosis, the sooner you get a correct diagnosis and treatment starts, the sooner you will be pain free.

Your Podiatrist can help you identify and address predisposing factors to prevent re-injury upon your return to exercise.

After diagnosis, an overall rehabilitation program will be arranged with your Podiatrist, and working through this is paramount to your recovery.

Still in Pain?

Are you are feeling like you have tried everything but are still in pain?

Do you feel like you have seen every health practitioner you can about your shin pain without improvement?

We have a track record of diagnosing and successfully treating shin splintcases that have previously proven difficult to resolve.

We'd love to help you get back on your feet and doing what you love.

***Providing the people of Waikato
with a centre of podiatry excellence***

Contact Us

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Call us or drop us an e-mail & we'll get back to you as soon as possible to discuss your pain and possible solutions.



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How can it be treated?

Bio-mechanical support of the foot is very important for treating this condition and ongoing prevention.

After correct diagnosis by your Podiatrist, treatment can be:

Periostitis: Involves addressing the factors addressed in 'What is causing the pain?' section', as well as settling the periosteal inflammation. Reducing pain and inflammation is important, particularly in the early stages of this problem. Treatment here involves relative rest from aggravating activities, icing the shins, stretching, and strengthening both weak and tight muscles. Bio-mechanical support of the foot is very important in treating this condition, as we want to make sure that the forces going through the lower leg are spread evenly and dealt with appropriately. In some instances, compression may also be used as a treatment modality; your podiatrist will talk to you about this.

Bone strain/stress fracture: Realistically there is only one thing that allows bone repair and regrowth, and that is resting the injured bone. The length of rest varies according to the degree of the injury from 6 to 12+ weeks. In more severe cases, some type of immobilization cast may be applied to aid in the rest. Other types of activities could be carried out to maintain fitness levels e.g. swimming, seated rowing, weight training, cycling, or kayaking, for example.

Muscle compartment syndrome: Massage, strengthening, and resting the affected muscles can help. Research shows however, that many chronic compartment syndrome patients have surgery as a long-term solution.

