
Shin Splints Injury

Introduction

The purpose of this leaflet is to provide you with some general advice about how to manage your pain when you have a shin splint injury and to offer you some simple exercises to help you to self-manage your injury.



What is a Shin Splint Injury?

Shin splints is the name given for pain in the shin bones or the front of the lower legs usually caused by exercise.

The condition is common in people who do a lot of running or other activities that involve repeated loading of the legs; especially when running, jogging, playing dynamic sports/activities or walking very fast.

Shin splints are not a serious condition but can stop you from exercising and may well get worse if you ignore the pain.

Shin splints can usually be treated at home and should start to get better within a few weeks by modifying your activities.

What causes Shin Splint Injury?

It is thought that the cause of shin splints is due to repeated stress on your shin bone (tibia) which causes inflammation of the tissue around it and the film membrane covering the bone (the periosteum).

Common contributory factors causing shin pain:-

- Sudden change in your activity level – e.g. starting a new exercise plan or suddenly increasing the distance or pace of running.
 - Running on hard and uneven surfaces.
 - Wearing poorly fitting or worn out trainers offering poor support and cushioning.
 - Insufficient rest between loading activities.
 - Being overweight.
 - Muscle strain: This is due to the repeated over stretching of certain muscles in the front of your leg, damaging some of the muscle fibres. This can be due to tight muscles below the knee and around the ankle (i.e. tight calf and ankle muscles/tendons).
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Possible consequences of repeated shin splints can be a stress fracture of the shinbone: a Small micro trauma in your shin bone (tibia) caused by repeated stress to the bone.

Common symptoms of a shin splint injury are:

- Pain which begins soon after starting to exercise.
 - Pain can affect both shins.
 - Symptoms tend to be dull and achy to begin with, but may become increasingly sharp or severe and stop you from exercising.
 - Symptoms may initially improve with rest and fade when exercising, but over time become more constant when exercising and at rest.
 - **Pain which can be felt over a large part on the shin (an area of more than 5 cm across). Pain in a small local area may be caused by a stress fracture instead.**
 - The painful area can be tender to touch.
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How is this condition diagnosed?

A shin splint injury is usually diagnosed based on your medical history. In some cases X-rays or other imaging studies can be helpful in identifying other possible causes for your pain such as a stress fracture.

How can I treat my Shin Splints?

Shin splints can usually be treated at home. The following suggestions may help to relieve the pain and allow your legs to heal:

The first treatment is to calm the inflammation and control the swelling and pain. This can be managed with the R.I.C.E.P approach to treatment, as detailed below.

R - Rest - Initial rest helps to prevent further injury and enables the healing process to begin.

I - Ice - Ice can help to reduce the pain around the painful area of your shin. Use a damp cloth and a bag of frozen peas (which you can re-use several times by re-freezing but do not eat them after doing this) or some crushed ice cubes in a damp towel. Put the ice pack on your injured shin for 10-15 minutes. You can do this every 2-3 hours or so as required during the day.

C - Compression - Compression bandages can be useful at this acute stage to provide both support and compression to the swelling to help with the pain. They can be purchased over the counter from chemists and most supermarkets. Make sure you do not wear any form of compression device on your leg at night.

E - Elevation - If swelling is apparent, try and keep the shin raised for a few days after injury. This helps to decrease the swelling and pain.

P - Painkillers - Over the counter painkillers such as Paracetamol and Ibuprofen, if taken regularly, can help with your pain as long as these are suitable for you.

Switch to low-impact activities - e.g. using a cross-trainer, cycling or swimming.

Modify your exercise; in order to keep fit without putting too much pressure on your shins

while they heal avoid impact activities.

Once the pain has settled for a few weeks you can gradually return to your activities, building up the time and distance you spend running or doing the sporting activity that may have initially caused your shin splints.

Preventing shin splints

- Visit **YouTube** and watch the short video '**Load vs Capacity and injuries**' (**BJSM**). (www.youtube.com/watch?v=H1rp_v4Dr3g) It will help explain the principles of your rehab and prevention program described below.

- Address the common contributory factors causing shin pain.
 - Wear trainers with appropriate cushioning and support. Professional advice from and appropriate professional in a recognised running specialist shop would be useful so that your running style can be assessed and the appropriate trainers recommended.
 - Wherever possible, run and train on flat, soft surfaces.
 - Mix high impact exercise (e.g. running) with low impact exercise (e.g. rowing, cross trainer, bike or swimming).
 - Any changes to your activity level should be introduced gradually.
 - Improve your overall strength and flexibility.
 - Warm up before exercising and stretch down after exercising - particularly your calves, hamstrings and the muscles on the front of your legs.
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For further information

Please email ghnt.newcastlegatesheadtims@nhs.net, ring on **0191 2138800** or visit our website at: www.tims.nhs.uk which provides online guidance and support on managing your musculoskeletal (MSK) condition effectively.

The NHS website also provides trusted online information and guidance on all aspects of health and healthcare to help you manage your condition and/or inform your choices about your health: www.nhs.uk.

Useful links

The Patient Advice and Liaison Service (PALS) can offer on-the-spot advice and information about the NHS. You can contact them on freephone **0800 032 02 02** or e-mail northoftynepals@nhct.nhs.uk.



Tyneside Integrated Musculoskeletal Service

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