

I think I might have shin splints, what should I do?

Castleknock GAA club have set up a Chartered Physiotherapy service lead by James Sherry M.I.S.C.P. This clinic is open to all club members and takes place in the Castleknock Hotel. Treatment sessions are available by appointment only. James specialises in the diagnosis and treatment of back and neck pain and sports injuries with over 10 years' experience working in private and public practice.

*To book a physiotherapy appointment contact James on **087-7553451** or email james_sherry8@hotmail.com*

Shin splints refer to pain in the shins - the front lower legs. It is an inflammatory condition of the front part of the shin bone. The pain is brought on by activity, more commonly in sports that involve periods of running. Research has shown that shin splints have been reported to account for 12% to 18% of all running injuries (1).



What are the causes of shin splints?

- Too much running or over training
- Increasing training load too quickly
- Running with poor technique or poor biomechanics
- Running downhill
- Running on a slanted surface or uneven terrain
- Running with inappropriate shoes, including proper shoes that have worn out
- Taking part in sports that include bursts of speed and sudden stops

Pain is usually felt early on during physical activity, dies down somewhat and then returns later on, sometimes during the same exercise session - this may occur during a long run. The pain can gradually become so bad that the activity has to be abandoned altogether.

What are the signs and symptoms of shin splints?

In most cases you will have a dull, aching pain in the front part of the lower leg. The pain can be on either side of the shinbone, or in the muscle itself - this depends on the cause.

Signs and symptoms related to shin splints may include:

- Pain along the inner part of the lower leg
- Tenderness along the inner part of the lower leg
- Moderate swelling in the lower leg
- Feet may feel numb and weak, because swollen muscles irritate the nerves

Females have a higher risk of complications from shin splints, e.g. stress fractures, especially if their bone density is diminished, as may occur in osteoporosis. People with flat feet or rigid arches or a history of ankle sprains are also reported to have a higher risk of developing shin splints.



Prevention of further injury:

A serious mistake is to try to "run through the pain". This type of intense pain usually means there is injury to the bone and/or surrounding tissue. Shin splints are often shown to coexist with a stress fracture, therefore it is important to get a proper diagnosis from your Chartered Physiotherapist (Wilder & Sethi 2004). You may be referred on for further investigations such as an MRI or X-Ray to rule out a potential stress fracture which can be serious if left untreated. Initially, the easiest way to minimize further damage is to stop or reduce the activities that cause your shin splints to occur.

How to treat shin splints (initial phase):

Ice is an easy and effective way to help reduce any pain and swelling in your lower leg. It can reduce bleeding within the muscle and prevent tissue damage, making the recovery process quicker. You may notice that during the initial phase your shin or calf may seem warm or hot. Use ice packs with a ***thin towel layer between the ice-pack and your skin*** (never put ice directly on the skin) for 20 minutes at a time.

Anti-inflammatory medication (if prescribed by your pharmacist or GP) and natural substances e.g. arnica may also help to reduce the pain and swelling.



Compression is believed to reduce muscle vibration and micro trauma and brings more oxygen and nutrients to your shin and calf muscles. Compression also flushes out lactic acid and reduces swelling preventing blood from pooling in your foot. As your symptoms improve, your Chartered Physiotherapist will recommend whether a compression sock or sleeve, supportive taping or an elastic calf support is most appropriate.

During the healing phase of your shin splints injury, it is important to keep your foot elevated above your heart (where possible) to allow for gravity to help drain your calf and lower leg swelling. If you follow these steps in protecting your injured leg, the inflamed tissues can be given a chance to successfully heal.



Physiotherapy:

Following assessment from a Chartered Physiotherapist, they will advise you on correct footwear and training and can provide a number of treatment options which will help your recovery from shin splints.

These treatment options include:

- Stretching
- Foam rolling
- Specific strengthening exercises
- Massage
- Trigger point release
- Dry needling
- Orthotic prescription
- Advice on footwear and training



How to avoid shin splints:

- Use proper fitting shoes with good support
- Make sure the insoles are shock-absorbing. If you have flat feet, good insoles are vital
- Avoid hard surfaces, uneven terrain, or slanted slopes
- Increase your training / running intensity gradually
- Make sure you warm up and cool down properly before and after exercise

References:

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5. Callahan LR, et al. Overview of running injuries of the lower extremity. <http://www.uptodate.com/home/index.html>. Accessed 15/08/2013