

'Shin splints' tends to be a general term often used to describe any pain that is felt along the shin bone, particularly during exercise. Technically speaking, there are three conditions that tend to fall under the category of shin splints, which are:



We're going to be talking about the most common cause of shin splints – medial tibial stress syndrome – but here is a quick look at the other two causes:

### ANTERIOR COMPARTMENT SYNDROME

Your lower leg is made up of four compartments. Each compartment houses specific muscles, tissues, nerves and arteries, and is enclosed by a lining tissue that prevents the compartment from over-expanding.

When one or more muscles within the anterior compartment are overused, it swells, resulting in a tight (and often painful) feeling at the front of the shins. This pressure and discomfort can settle with rest, and recur when you start exercising again.

### TIBIAL STRESS FRACTURE

Tibial stress fractures occur when excess and repetitive stress on the shin bone results in a fracture starting to form. Stress fractures start as small cracks which may have no painful symptoms or a dull ache or niggle. Without treatment, and with ongoing stress on the bone, the fracture worsens and becomes more painful.

As stress fractures can take many weeks to show up on x-rays, this may explain why it is initially diagnosed as a broader 'shin splints' instead.

### MEDIAL TIBIAL STRESS SYNDROME (MTSS)

Like the name indicates, medial tibial stress syndrome is caused by excess stress on the inside border of the tibia (shin bone).

The stress may affect the tendons and muscles that attach to the shin bone, or from the lining of the shin bone itself. This causes pain and swelling, making it painful to continue movements that activate the muscles at the front and inside of the shins, which are often involved in activities like running.



### MTSS CAUSES & SYMPTOMS

Any activities or factors that contribute to increased stress on the tibia can result in MTSS. This includes:

- Physical activity – starting new physical activities or increasing the intensity or duration of existing activities
- Biomechanical factors – your foot posture, like flat feet, and lower limb biomechanical function can contribute to the onset of MTSS
- Other factors – like exercising with unsupportive or worn-out shoes

Aside from pain at the front and inside of the shins, you may experience some swelling, and your symptoms may be aggravated by exercise.

### TREATING SHIN SPLINTS

Treating shin splints starts with relieving your initial symptoms, understanding what has caused them (and so may continue to stress the shins) so that the right environment can be created to allow the damaged structures to heal, and then put the right measures in place to help prevent shin splints from becoming an ongoing problem in the future. To do this, we may use one or a combination of:

- ✓ 3D-scanned custom foot orthotics
- ✓ Strapping, splinting or bracing
- ✓ Gait retraining following a running assessment
- ✓ Footwear adjustment to more stabilising and supportive shoes
- ✓ A stretching and strengthening programme
- ✓ Using RICE (rest, ice, compression and elevation) can help settle your initial painful symptoms.

Our Values – We:

