

Shin splints

and how to tell them from a stress fracture

Shin splints — medial tibial stress syndrome — is pain along the inner edge of the shin caused by the bone and its lining being loaded faster than they can adapt. It is the classic injury of doing too much too soon, and the important thing is distinguishing it from a stress fracture, which needs a different approach entirely.

Seek prompt assessment if you have

- **pain at a single point** you can cover with a fingertip, rather than spread along the shin
- **pain at rest or at night**, or pain on hopping on that leg
- **severe pain, tightness and numbness** during exercise that eases on stopping — possible compartment syndrome
- **swelling, redness or heat** over the shin, or fever
- shin pain with **irregular periods or a history of disordered eating**
- pain that is **worsening** despite reducing training

A focal, pinpoint tender spot with night pain suggests a tibial stress fracture, which requires rest from impact rather than modified loading. Shin pain in a female athlete with irregular or absent periods raises the question of relative energy deficiency and low bone density, which needs assessing.

Telling them apart

- **Shin splints** — diffuse ache along the inner shin over several centimetres, worst at the start of a run, often easing as you warm up, sore afterwards.
- **Stress fracture** — sharp, **pinpoint** pain over a small area, worsening through activity rather than easing, often painful at night and on hopping.
- **Compartment syndrome** — tightness, aching and numbness building predictably at a certain distance, resolving within minutes of stopping.
- Imaging is not usually needed for straightforward shin splints, but MRI is the test of choice where a stress fracture is suspected.

What causes it

- **A sudden increase in training** — distance, frequency, intensity or hills. The single commonest factor.
- **Running on hard or cambered surfaces**, and worn-out shoes.
- **Weak calf and hip muscles**, and poor single-leg control.
- **Excessive pronation** or a very high arch.
- Low vitamin D, low iron, and inadequate energy intake for training load.
- Returning to running after a break at the level you left off.

Getting better

- 1 Reduce impact load, do not stop entirely.** Cut running volume substantially and replace with cycling, swimming, aqua-jogging or cross-trainer to maintain fitness.
- 2 Build calf strength.** Heel raises, straight-knee and bent-knee, progressing to single-leg and then added weight. This is the intervention that most changes recurrence.
- 3 Add hip and glute work** — single-leg control determines how much load reaches the shin.
- 4 Increase cadence** by around 5–10% — shorter, quicker steps reduce impact per stride and are one of the simplest effective changes.
- 5 Return gradually.** Walk-run intervals, on soft flat ground, increasing weekly volume by no more than about 10%.

Helps

- Ice after activity, and soft-tissue work to the calf
- Replacing running shoes every 500–800km
- Running on grass, trails or a treadmill rather than pavement
- Checking vitamin D and ferritin, both commonly low in runners
- Strength training twice a week, year-round

Prolongs it

- Complete rest, then returning at the previous volume
- Running through pain that worsens during the session
- Increasing distance and speed in the same week
- Ignoring worn shoes or a change of surface
- Doing only stretching, with no strength work

Why come to us. The important question is whether this is a stress syndrome or a stress fracture, because getting that wrong costs a season. Our physiotherapy and orthopaedic teams assess the shin, check the hip and foot mechanics that caused it, and test **vitamin D and ferritin in-house** — both frequently low in runners and both affecting bone. MRI is arranged rapidly through our CQC-registered partners where a stress fracture is suspected. Seven days a week, no referral needed.

Stress syndrome or stress fracture? Assessed properly

Physiotherapy on site, bloods in-house, MRI arranged fast.

Book an appointment

or call 020 7916 0029

Where to get help

Tower Bridge Hospital London

97–99 Whitechapel Road, London E1 1DT

020 7916 0029

WhatsApp **07903 284 189**

info@mhwclinic.co.uk

Open 7 days, 9am–7pm

In an emergency

Call 999, or go to the Royal London Hospital Emergency Department, Whitechapel Road, London E1 1FR.

When we are closed and it is not an emergency

Call NHS 111 or visit 111.nhs.uk.

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This leaflet is based on current NHS and NICE CKS guidance on shin pain and medial tibial stress syndrome. It is general information and does not replace advice from a clinician who has assessed you. If your symptoms change or you are worried, contact us on 020 7916 0029, call NHS 111, or call 999 in an emergency.

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