

5 – Shin Splints

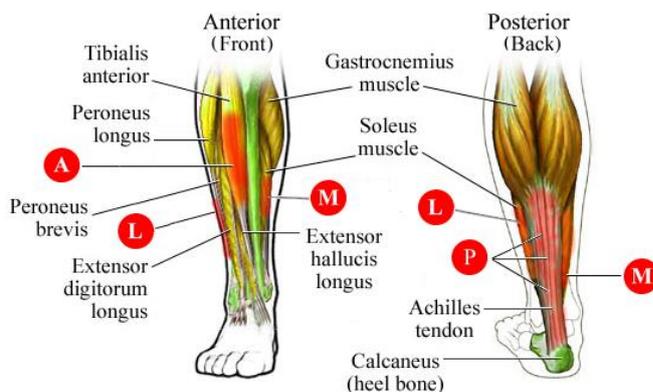


Shin pain is another common complaint among runners and triathletes particularly distance runners. The term "shin splints" is widely used but it's a non-descript reference regarding leg pain. As there are a number of multiple causes of lower leg shin pain "shin splints" are not precise enough.

Technically shin splints refers to medial tibial stress syndrome caused by tears in the muscles around the shin and accounts for 15% of running related injuries.

If you have it there will be aching and throbbing pain down the inside of your shins that really flares up when you run mostly. You may also have some swelling and redness and pain felt when you point toes downwards.

If the pain at shin area is more than unbearable on touch you should contact your Doctor to rule out a potential stress fracture.



Typical Areas for "Shin Splints"

A Anterior **M** Medial **L** Lateral **P** Posterior

Are you at Risk?

Shin splints are often experienced by new runners or those returning after extended time out and overdoing it (too much too soon). High arches or flat feet put you at extra risk as does incorrect foot ware or worn out shoes.

The role of biomechanics is central to shin pain, predisposing some individuals with abnormal biomechanics. A high arched foot has limited shock absorption and increase the impact pressure on the shin bone (tibia). Excessive pro-nation puts the *soleus*, and deep compartment muscles *tibialis posterior*, *flexor hallucis longus*, *flexor digitorum longus* in a lengthened position and are required to contract harder and longer to resist pronation after heel strike.

Running through it!

It is possible to run through it so long as you take the right action and at the very first sign of a twinge, cut back on time on feet and intensity. You can revert to every other day run strategy and incorporate other activities such as cycling, swimming, core workout, and aqua running can be very effective.

Most cases require up to 2 weeks complete rest from running, [ice](#) on daily basis until swelling and pain has gone. Use compression sock and or tapping.

Complete 3 sets of shin raises per day 3 sets of 10 on each foot (*stand flat against wall, keep your heels on floor while you raise and lower your toes/forefoot hold for 2 or 3 seconds and repeat*).

Shin pain often involves a number of anatomical processes including; **Bone stress** (*damage from stress fracture*), **Vascular insufficiency** (*reduction in arterial inflow and outflow for example popliteal artery entrapment*), **Inflammation** (*develops at insertion of lower leg muscles particularly tibialis posterior and soleus*), **Raised intra-compartmental pressure** (*lower leg has several muscle compartments these can become swollen and painful*). **Nerve entrapment** (*of the superficial peroneal nerve*).

Cross section of lower leg



It is not uncommon for a stress fracture to develop as a result of chronic periostitis (*connective tissue that surrounds the bone*) and lead to intra-compartmental swelling (**compartment syndrome**).