

Shin Splints

The term “Shin splints” is a wide generality of shin pain, usually associated with increased impact from athletic activity. However the problem can be created by a simple situation of wearing poor footwear while walking on a concrete floor.

There are two muscles that originate in the middle part of your lower leg, and run down the leg to your foot. These are called tibialis anterior and tibialis posterior, and function to control how your foot contacts the ground. Another group of muscles that can also create havoc on the outside of your calf are the peroneal muscles.

The function of these muscles is to work as reins as your foot hits the ground and control the pace at which your foot contacts the ground and the angle of contact. They work much harder on uneven surfaces.



“Shin Splints” often occur when training (especially running) is increased too quickly. The muscles are not strong enough to handle the load and therefore fatigue. This creates damage, usually where the muscle attaches to the bone, resulting in shin pain that can be quite disabling. This discomfort will be sharp in nature, relieved with rest, but comes on again as activity is resumed.

Because these muscles attach in the foot and are also responsible for controlling the alignment of your feet, poor footwear is often involved. If your footwear does not provide adequate support of your heel and arch, these muscles must work overtime to stabilize the foot and then fatigue and breakdown. Although the problem is actual support of your foot, the pain will be in your shin, where the muscles attached.

Finally training surfaces can play a role in creating shin pain. If you have been running on grass regularly (soccer) and begin to train on the road, the impact can create an issue.

As well the inverse is possible....running on the road and switching to an uneven surface (the beach) can cause the discomfort. The key is moderation and gradual change to a new surface. One other thing that is forgotten is that roads have a camber to them to help water run off the surface. So if you always run on the right side of the road, your right foot will always strike at an angle. The easiest solution for this is to run out on one side of the road and back on the same side, thus balancing the amount of time that each foot is the “ down “ foot.

Treatment of these shin disorders is predominantly to manage the inflammation with ice and modalities such as ultrasound or laser. If the problem doesn't resolve itself with ice in 24 hours then you need professional advice. Most importantly is to get a thorough assessment by a physiotherapist to determine which muscle is involved, what your footwear is like, and any imbalances that exist in your lower leg and foot. The irritation to the area must be corrected so when you do regain your strength and range of motion, and return to activities, you don't end up re-irritating the problem again.

This is not an injury to be ignored. If it is dealt with quickly (within 48 hours of onset), it can be something that only has you out of activity for a week or so. If you ignore it, and the problem continues, the damage can be significant and even lead to stress fractures in your tibia. That can be a situation where you are required to rest the area and not train for 6-8 weeks.