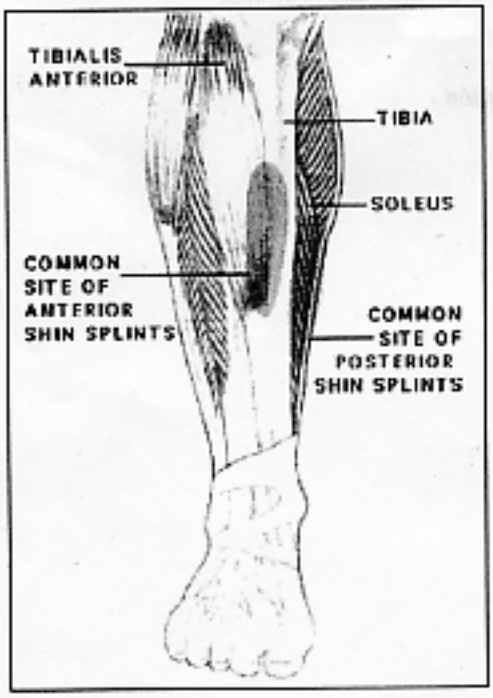
Shin Splints



Definition

The lower leg pain resulting from shin splints is caused by very small tears in the leg muscles at their point of attachment to the shin. There are two types:

Anterior shin splints occur in the front portion of the shin bone (tibia).
Posterior shin splints occur on the inside (medial) part of the leg along the tibia.
Anterior shin splints are due to muscle imbalances, insufficient shock absorption or toe running. Excessive pronation contributes to both anterior and posterior shin splints.

Symptoms

The pain may begin as a dull aching sensation after running. The aching may become more intense, even during walking, if ignored. Tender areas are often felt as one or more small bumps along either side of the shin bone.

Causes of Injury

- Tightness in the posterior muscles, which propel the body forward, places additional strain on the muscles in the front part of the lower leg, which work to lift the foot upward and also prepare the foot to strike the running surface.
- Hard surface running, or worn or improper shoes increases the stress on the anterior leg muscles. Softer surfaces and shoe cushioning materials absorb more shock and less is transferred to the shins.
- The lower leg muscles suffer a tremendous amount of stress when a runner lands only on the balls of the feet (toe running), without the normal heel contact.
- The muscles of the foot and leg overwork in an attempt to stabilize the pronated foot and the repeated stress can cause the muscles to tear where they attach to the tibia.
- Rapid increase of speed or distance.

Short Term Treatment

- Ice immediately after running, never before.
- Aspirin or ibuprofen, never acetomenophen, to reduce inflammation and relieve pain.
- Reduce mileage and intensity for 7 to 10 days; never run through pain.
- Avoid hills and hard running surfaces.
- A varus wedge to support the inside of the foot and reduce the amount of pronation.
- Gentle stretching of the posterior leg and thigh muscles.

Self-enforced treatment of shin splints, as with most overuse injuries, is successful in most cases.

Long Term Treatment

Persistent problems may warrant a visit to a sports-medicine specialist who may prescribe the following treatments:

- Strengthening and flexibility programs to correct muscle imbalance. These exercises should only be done in the absence of pain.
- Orthotic devices.
- Anti-inflammatory medications.
- Physical therapy involving ice massage, ultra-sound, electrostimuli and heat to reduce inflammation and pain.

The best means of prevention of serious athletic injuries is to maintain good muscle strength and flexibility.

Information and graphics provided by the American Running and Fitness Association.
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