

Injury Timeout

Shin Splints



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Shin splints are one of the most common and recurring injuries in Ultimate. They generally arise and recur when training intensifies or moves to a hard surface. This article will discuss the diagnosis, treatment, and prevention of shin splints. This column is not meant to replace medical evaluation for your health problems. Always seek medical help for worrisome or persistent symptoms.

First, we must distinguish shin splints from stress fractures. Whereas shin splints are a general term for pain in the lower leg, stress fractures are microscopic fractures causing localized pain directly on the bone and surrounding leg muscles. Unfortunately symptoms of both can be nearly identical. Although pain from stress fractures is typically more severe and localized to a small spot, medical consultation is usually necessary to distinguish a severe case of shin splints from stress fractures. The doctor may use x-rays or more sensitive bone scans to detect stress fractures. This injury can take weeks to months of active rest to recover from- that means no running.

The most common type of shin splints that Ultimate players will experience is medial tibial stress syndrome (MTSS), a diffused pain along the side of the shin bone while running and in more severe cases, during any weight-bearing activity. The most common location of MTSS is along the inside edge of the mid-shin, but the pain can occur anywhere along the shin bone (Figure 1).

The main cause of MTSS is too much running with weak muscles in the lower leg and ankle. Our shin muscles help control our ankle movements, but if these muscles are weak or tight, we have less control over our feet. Therefore, when our feet slap the ground with more force, the jerky movements pull on the shin muscles where they attach to the shin bone. Over time this area becomes repetitively irritated, swollen, and very painful. A similar cause and effect sequence can arise from side-to-side and rotational control of our feet.

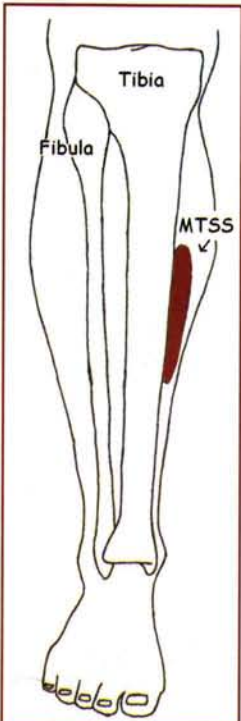


Figure 1: Diagram of the shin bones and the most common location of MTSS (Medial tibial stress syndrome)

Upon first signs of shin splints, RICE (rest – stop running, ice, compress, and elevate) is a good regimen to follow. *It is necessary to begin ankle and shin strengthening and stretching exercises right away (Figure 2).* Manage the pain using ice and anti-inflammatory medication such as ibuprofen 600-800 mg three times a day for five days. You can give yourself ice massages with small paper cups of ice rubbed over the affected area for 10-15 minutes several times a day. Fill some small paper cups with water and freeze them. Rip off the top rim of paper and massage with the exposed ice.

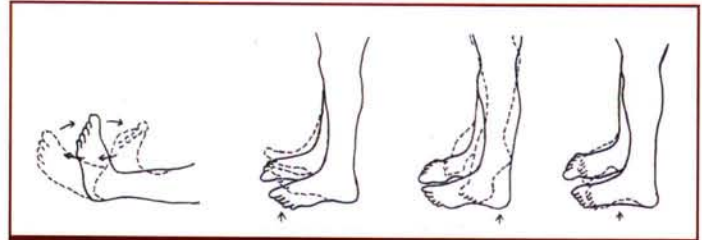


Figure 2: Shin strengthening and stretching exercises

If the shin splints persist or worsen, workouts should be modified to cut down on running and repetitive motions such as plyometrics. This can include replacing a track workout with aqua jogging, hill biking, or training on softer ground. Sometimes changing your shoes or adding stiff inserts such as those made by Superfeet can help. Other treatments include taping the shins, massaging the inflamed area by hand, anti-inflammatory medications, acupuncture, and ultrasound or electrical stimulation performed by a physical therapist. Of course, the ultimate treatment for a severe case of shin splints is rest and pain management as described above. If the shin splints continue after two weeks of rest, see a doctor. You may need custom orthotics for your shoes or you may have a stress fracture.

When you start increasing your training regimen or switch to training on hard surfaces, we highly recommend the following prevention exercises for at least a few weeks, done before or after every workout, best on soft ground.

- Walk for 20 yds on your toes with your arches raised and your feet pointed forward, twice. Repeat this activity with your toes pointed outward and inward for 20 yds each, twice.
- Walk on your heels with your toes raised and pointed forward, outward, and inward according to the same guidelines as above.
- Skip with feet pointed forward, outward, and inward, 20 yds each, twice.
- Jog backwards 50 yds with your chest down, reaching back with your legs mimicking a forward running motion (except in reverse), twice.
- Jog backwards 50 yds with your chest upright this time running more quickly, twice.

In conclusion, shin splints is an overuse injury due to repetitive exercises and training on hard surfaces. Knowing your limitations and following a consistent stretching and strengthening exercise regimen will help you to remain healthy and to enjoy Ultimate at your best.

References:

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The opinions expressed in this article are those of the author. The UPA encourages individuals to consult their own medical professional for specific medical information.