

# Are Shin Splints Keeping You From Enjoying Your Favorite Spring Sports?

**Michael Auge, PT**  
**Physical Therapist**  
**Andover Physical Therapy**

If you have ever had shin splints, you know what a hindrance it can be on your spring training. The pain may be so intense that it doesn't allow you to train at the level you desire.

Shin splints are an overuse injury. Meaning, repetitive activities under the right circumstances may cause breakdown of muscle, fascia (connective tissue), and even bone. For example, running on hard or firm surface causes an increased impact, than if you were running on a grass surface. The harder the surface, the greater the demand placed on your musculoskeletal system to absorb the shock from impact. When the foot hits the ground, the Tibialis Anterior (TA) muscle assists the foot in shock absorption with an eccentric (controlled lengthening of the muscle) contraction, causing a "bow-stringing" effect. The TA, is a muscle located just laterally to the shinbone on the front surface of your leg, and is prone to injury when running with high intensity on hard surfaces.

If you have flat or pronated feet, you may be more prone to shin splints, or other orthopedic injuries like plantar fasciitis. "Bow-stringing" places a large stress on the fascia connecting the TA to the Tibia (shinbone). The intensity during the repetitive impact may be so large, the bone may even start to form stress fractures. The breakdown of muscle, connective tissue, and bone is caused by inadequate shock absorption.

Unfortunately, the TA is a very tough muscle to stretch, so stretching of the calf and other leg muscles frequently becomes essential. Hold the stretches for at least 30 seconds. Strengthening of the foot and calf muscles is also important. Exercises should consist of low load and high repetition. Start with 5-10lbs for 30-50 reps.

Proper shoes and arch supports are also important to minimize over-pronation or flattening of your feet as they absorb the impact from every step. A good shoe store will have trained employees that will be able to look at your bare feet and select a proper set of shoes, and possibly an off-the-shelf set of orthotics to correctly support your feet.

Another important concept is "R.I.C.E." Rest, Ice, Compression, and Elevate. If you can avoid the repetitive activity causing your injury for 2-3 weeks, that is best. The human body requires 6-8 weeks to properly heal itself from most injuries. Many people feel taking a couple weeks off from their training will set them back. It may be true, but you must remember if you can't rest it, it will most likely worsen. When resting your injury, cross training is a good solution to maintain cardiovascular endurance and muscle strength. Biking or rollerblading are two cross training activities with minimal impact.