

Lower Leg Injuries

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Millions of Americans have become aware of the need to exercise on a regular basis. Jogging, walking, and aerobic exercise classes are the most widely used exercise programs. Unfortunately, a high percentage of the participants in these activities will develop an overuse injury to their lower extremities.

One of the most common complaints is the onset of lower leg pain which begins after starting the exercise program. Often the patient has already had treatment by physical therapists, orthopedic surgeons, and other sport injury specialists. I love these types of patients because after we help their sports injury, which other specialists were not able to do, they now trust us to take care of their spinal problems as well. I believe that the best way to build a practice is to get people better and they will refer everyone they know.

The most common lower leg injury is "shin splints." Sports medicine specialists are starting to use the new terminology of medial and lateral tibial stress syndrome instead of "shin splints." This injury can be devastating to young athletes as well as recreational runners and aerobic exercise enthusiasts. Hard surfaces are blamed as the cause of shin splints by many experts.

In my opinion, the cause of the vast majority of shin splints is the common biomechanical problem of overpronation. Pain along the medial border of the tibia is the chief entering complaint. The posterior tibialis muscle attaches along the medial tibia and inserts on the bottom of the medial foot. Its function is to invert and dorsiflex the foot. It also helps to support the arch of the foot and therefore helps prevent overpronation of the foot. Overpronation is an excessive rolling in of the foot. Many authors have stated that 60-80 percent of the population overpronates. This overpronation will cause an overstretching of the tibialis posterior muscle which leads to fatigue, weakness, and spasm. As a result, the attachment of the muscle along the tibia will become inflamed. The periosteum of the bone is loaded with pain nerves and the condition can be extremely painful to the point of stopping all exercise activity.

Correction of this condition starts with a custom foot orthotic to correct the overpronation of the foot. Overpronation takes place in the subtalar joint and this joint needs to be checked for subluxations. Once the foot is stabilized and the biomechanical problem has been neutralized, therapy to the injured area can begin.

Therapy for our patients usually includes massage, micro-electrical therapy, cryotherapy, and a light strengthening program for the tibialis posterior muscle. Strengthening the tibialis posterior muscle is accomplished by having the patient stand with his feet turned in as much as possible (pigeon-toed.) Then the patient will do toe raisers. This is done using only the body weight and lifting the heels off the ground and then coming back down. In time, the patient will be able to do 100-200 repetitions in a few minutes.

The differential diagnosis of a tibial stress fracture must be performed on all patients. An AP and lateral, lower leg x-ray must be taken to rule out a stress fracture. Any small change to the tibial cortex indicates a stress fracture. All sports activity is stopped for 6-12 weeks while the fracture

heals. Of special interest is that this cortex reaction may not be seen in the initial stages of pain. Therefore, another series of x-rays should be taken if the condition is not improving with treatment. A bone density study can be utilized in difficult cases; however, I prefer that the patient rest for 6-12 weeks prior to a bone density study.

This treatment plan that has been presented, along with the clearing of any foot, ankle, knee or pelvic subluxations will give you, the doctor of chiropractic, the best results of any sports medicine specialist in your community.

There are thousands of people unable to exercise due to "shin splints." We can get those people better and back on their exercise programs through correction of their biomechanical problems and good chiropractic care.

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