

OUCH! SHIN SPLINTS

Now that the New Year is here, many resolutions will include some kind of weight loss and exercise program. A common ailment in the beginning of an exercise program is developing shin splints. Shin splints, stress fractures and other over use injuries have a common mechanism of development. Understanding the circumstances that lead to these injuries is the key to preventing them.

Shin splints are characterized by pain in the lower 1/3 of the shin. The pain is felt on the bone and can develop inflammation of the layer of bone called the periosteum, as well as inflammation to the fascia and muscles around the lower leg. A simplified view of mechanics of running reveals 3 main phases: foot strike is when the heel contacts the ground, a loading or energy transfer phase which is called the mid stance, and finally the push off “toe-off” phase with the forefoot. Each foot strike delivers a shock wave that travels up the leg with a force of 3-4 times a person’s body weight. The harder the running surface, the greater the shock wave. The repeated running cycle of pounding and pushing off results in muscle fatigue which may then lead to higher forces being applied to the fascia. In the early stages of shin splints, a runner will describe pain that is present when the training or run first begins, but then disappears as running continues. The pain will often return after exercise or the following morning. As the injury progresses, the athlete will experience more time with the pain and less time without. There is frequently a tender zone along the inner edge of the tibia that can be traced up the ankle to the middle or upper portion of the shin. Eventually if it’s ignored and training continues, stress fractures can develop over the area.

When dealing with overuse injuries, it’s important to look at the entire chain of movement. This includes ankle, knee, hip and pelvis. An over pronation or turning in of the foot can be a primary cause of developing shin splints. Poor sacroiliac mobility or loss of range of motion in the knees, as well as tight gluteal, calf and hamstring muscles can predispose a person to shin splints and other injuries.

The treatment for shin splints is initially rest. Because it is an inflammatory response, ice is also therapeutic to the area. Once you’ve felt that the pain has started to subside and you wish to return to exercise, modifying activities initially could reduce the chances of the shin splints from redeveloping. Modifications can include lengthening intervals between training as well as decreasing the volume or intensity of training. Substituting a weight bearing exercise such as running with biking can also allow you to continue to train or exercise without aggravating the symptoms. Stretching and strengthening the calf muscles can also help prevent the injury from returning. Centerpointe Chiropractic and Physical Therapy located at 4085 N. Jefferson Street treat advanced athletes, weekend warriors as well as the senior athlete. If you are having symptoms of shin splints or any other muscular or skeletal pain, Lou Rossi, D.C. and Matt Trnka, P.T. will be happy to evaluate your condition and get you on the road to recovery. We always work with your primary care physician or health care provider. Contact (330)-723-2225 should you wish to make an appointment or have any questions.