

WHAT EXACTLY ARE SHIN SPLINTS?

Shin splints are the everyday term used for anterior compartment syndrome, the front of the lower leg. Compartment syndromes are painful conditions caused by increased pressure inside different muscle compartments. The compartments are formed by fascia. Fascia is a connective tissue that surrounds the muscle to keep the muscle organized and positioned in the body. Compartment syndrome can occur anywhere in the body there is muscle or fascia. It is not a condition exclusive to the front of the lower leg.

Acute compartment syndrome can arise as a result of:

- External, direct impact such as a fall, kick or a blow which causes soft tissue injury with bleeding inside the compartment
- A muscle rupture with bleeding inside the compartment
- Overuse, for example, running or walking on hard surfaces without having prepared for or adjusted to the hard surface.

Chronic compartment syndrome can occur as a result of increase in muscle bulk following prolonged training. The increase muscle bulk causes the musculature to grow larger than is allowed by the surrounding fascia. Keep in mind, fascia is meant to be a tight membrane of support and is not particularly elastic. When at rest there is no pain, but when you use the muscle there is an increase in blood flow and a further increase in bulk of the muscle. As a result, the pain increases from too much pressure. If you continue to exercise for any length of time, the blood flow will be obstructed causing relative lack of oxygen and the formation of lactic acid. Fluid then begins to leak from tiny blood vessels. This swelling from the buildup of fluid further increases the pressure on the muscle compartment impairing blood flow even more. This vicious cycle continues unless movement ceases.

This is when physical therapy can be beneficial to reduce pain, swelling and facilitate tissue repair and relieve the pressure in order to avoid surgically releasing the pressure.

Above all, prevention of your “shin splints” is crucial. Stretching the toes, calf, legs and low back, proper footwear, adequate arch support and sufficient leg and core strength is required.

When you have your **initial evaluation** session with us, a review of your medical history, surgeries, medications and a thorough physical examination will be performed of the back, pelvis, hips, knees, ankles and feet. A series of specialized movement tests will be provided to help pinpoint the precise source of your pain. We can identify if there is an alignment issue, scar tissue, fracture, ligament or cartilage injury, tendonitis, bursitis, impingement, a pinched nerve, a tear or muscle imbalance causing dysfunction.

The physical examination helps us develop a **personalized treatment plan** for the physical therapy office setting and for at home. Your treatment plan will include Pain/Primal Reflex Release Techniques (PRRT) (see our June 3, 2013 article), Graston (see our June 24, 2013 article) and other manual therapies to reduce soft tissue restrictions and your pain. For most, pain is reduced at least 50 percent at the end of

the first session. Modalities such as biofeedback, ice, heat, iontophoresis, ultrasound and electrical stimulation may be used to help manage pain and inflammation while pain free movement is restored with therapeutic exercise, functional training and postural correction. As always, our focus is on getting your pain and difficult function under control as you learn self-care and home exercise techniques to reach your goals.

If you are interested in having us help you with your shin splints or any other condition then contact us at

(585) 396-1400. You can also email us at Zoe@lakecountrypt.com or Robert@lakecountrypt.com.

For more information about Lake Country Physical Therapy and Sportscare, PC, visit us at www.lakecountrypt.com.

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