

Shin Splints

Shin Splints is a generic term for lower leg pain. The most common injury referred to as shin splints is actually Medial Tibial Stress Syndrome (MTSS). MTSS refers to pain on the inside (medial side) of the lower leg most commonly found in the bottom 1/3 of the lower leg (tibia). This injury is sometimes confused with Exercise- Induced Compartment Syndrome (EICS). With EICS there is a build-up of tissue fluid pressure that compresses on the muscles, blood vessels, and nerves.

Causes of Shin Splints (MTSS)

- Tight calf muscles
- Lack of proper stretching
- Improper shoes (shoes should have adequate support and shoes with too many miles should be replaced)
- Running on concrete or other hard surfaces
- Imbalance of muscles (between the front and back calf muscle)
- OVERTRAINING (rapid increase of speed and/or distance)
- Running only on the balls of the feet
- Running on a crowned surface (such as the side of the road in the gutter)

Signs and Symptoms of MTSS

- Tenderness over the inside of the shin
- Swelling
- Pain when pointing the toes
- Redness over the inside of the shin
- Loss of normal ankle function
- Limping
- Pain progresses from pain after activity; pain before and after activity; pain before, during, and after activity, and finally unable to practice due to pain.

Treatment of MTSS

- Decrease training
- Non-weight bearing exercises (swimming, bike, and pool running)
- Running on soft surfaces
- Avoid downhill running
- Icing after activity (ice massage for 10 minutes)
- Stretching BEFORE and AFTER exercise of the calf muscle once with the knee straight, once with the knee bent, and repeat 3 times
- Athletic shoes that give adequate support (shock absorption is a MUST. May need insoles)
- SLOWLY increasing training.

Prevention of MTSS

- Proper calf stretching
- 4-way ankle strengthening
- Avoid wearing flip-flops or shoes without any arch support throughout the day
- Tapping the toes for 30-50 times each rep for 3 reps to strengthen the front muscles
- Picking up marbles with toes 3 times daily

When to see the Doctor for MTSS

- If pain continues the following day, or after a period of rest
- If pain limits the amount or distance of how fast the athlete is able to go
- If the athlete is unable to run without a limp
- If the athlete can pin-point one spot that has the most pain

It is important for proper care of MTSS. If it is not cared for or prevented the injury can progress to a stress fracture which takes much more time to care for.

Causes of Exercise- Induced Compartment Syndrome (EICS)

- Fluid pressure builds-up and pushes against the fascia and bones
- Extensive running

Signs and Symptoms of EICS

- Pain and pressure during activity the goes away with rest
- Possible numbness on the top of the foot
- Weakness when foot and toes are pointed and flexed

Treatment of EICS

- Ice may help with symptoms
- If EICS is suspected, it is important to see your Doctor for proper diagnosis