MEDIALTIBIAL STRESS SYNDROME (Shin Splints)

♦ What is it?

Shin splints is a term broadly used to describe pain in the leg along the tibia bone brought on by exercise or athletic activity. It refers to medial tibial stress or periostitis. Periostitis is inflammation of the lining of the bone (periosteum). Shin splints are caused by overuse from repetitive activity, which leads to breakdown of the tissues. Continued activity, before the breakdown can be repaired, leads to inflammation of the periosteum (lining of the bone) and the tendon insertions into the bone and its lining. This breakdown exceeds the ability of the tendon and periosteum to heal completely, resulting in injury, more inflammation, and pain.

♦ Signs and Symptoms of this Condition

- Pain along the shin (lower leg), above the ankle. The pain is along the bone and not the muscle.
- Pain that initially occurs after exercise, progressing to pain in the beginning of exercise that lessens after a short warm-up period.
- With continued exercise and left untreated, constant pain that eventually causes the athlete to stop high impact exercise and sports participation.
- Tenderness to press along the tibia (shin bone).

♦ Causes

- Overuse from repetitive high impact activity (hiking, running, jumping, etc.).
- Improper shoes for running (running in running shoes that are worn out and no longer provide sufficient cushion, jogging in court shoes, etc.).
- Prolonged running on very hard surfaces such as concrete.

♦ What Can I do to Prevent Shin Splints?

- Train properly (slowly progress running mileage, avoid running every day to ensure adequate recovery, avoid running hills and on side sloped / banked surfaces.
- Change running shoes out every 500 miles (every 6-9 months for many average runners).
- Warm-up and stretch well before running (calf, hamstrings, quadriceps).
- Run on surfaces that absorb shock (grass, composite track, dirt, etc.).

♦ Prognosis

Shin splints will normally resolve in 6-8 weeks given sufficient rest from running and walking, daily ice treatment, and anti-inflammatory medication. It will not improve by continuing to run or work through the pain while continuing to run. Chronic shin splints (cases

in which athletes continue to run through the pain with symptoms lasting longer than 6-8 weeks) can take many months to heal.

♦ Treatment

- Rest – NO running or prolonged walking/hiking (Biking or swimming are good alternate forms of aerobic fitness training).
- Ice over the shins 15-20 minutes 1-2 times per day.
- Anti-inflammatory medication (aspirin, ibuprofen, etc) may be helpful in reducing both pain and inflammation.
- Calf stretching (knee straight and knee bent, hold each stretch 30 seconds, repeat 2-3 repetitions, 2 times per day) **See Below**
- Endurance training of the muscles in the front of the leg by performing toe raises while the heel is flat on the ground or against the resistance of elastic band (1-2 minutes, 1-2 times per day). **See Below**
- Change to a new pair of running shoes if indicated.
- SLOWLY progress back into jogging by alternating between walking and jogging every other day with a gradual increase in jogging distance and decrease in walking distance until performing straight jogging.
- Symptoms can return if you resume running, jumping, or prolonged walking too early.