

"Shin - Splints"

By Thomas J. Haverbush, M.D.
Orthopaedic Surgeon

Transforming patient information into patient understanding.

What Is It?

The phrase "shin-splints" is used to describe tenderness and pain on the inner side of the lower leg midway between the knee and ankle. It usually develops after physical activity such as vigorous exercise or participation in sports. The condition and what causes it are not completely understood. It is also called "medial tibial stress syndrome" or inflammation of the muscular or tendinous attachment to bone. It is thought that leg muscles adjacent to the shin bone (tibia) pull on the bone's covering (periosteum). This inflames the periosteum and produces pain.

Symptoms

You notice pain midway between the knee and the ankle at the beginning of vigorous activity. After warming up the pain usually eases, but then returns after exercising. The area will be tender to touch. The pain has a deep aching quality.

What Else Could It Be?

A lot of things. But don't worry that's my job to figure all that out! I will list them, but it is beyond our discussion to go into detail about them.

- Stress fracture
- Acute or chronic compartment syndrome
- Pinched nerve in the leg
- Muscle strain
- Tumor
- Infection
- Deep vein thrombosis
- Artery entrapment

Underlying Cause

There is a normal pronation of the forefoot during stance phase of running. This allows for shock absorption. Excessive or unbalanced pronation of the foot may be the cause of shin splints. Pronation means the foot rotates too much to the big toe side when the foot hits the ground.

Exam

Somewhat diffuse tenderness in the leg to the inner (medial) side of the bone (tibia). Stress fracture tenderness is usually specific. Shin splint tenderness is more diffuse. Usually there is no noticeable swelling and skin sensation and circulation are normal. Shin splints diagnosis is likely if bringing the foot up at the ankle increases the pain.

X-rays

Plain x-rays are normal. Bone scan may show some linear streaking different from what a stress fracture shows.

How I Treat It

- Decreased activity is always the first thing
- Athletes have to be without pain to return to sports
- Ice massage is helpful
- Advil or similar is helpful
- Change of shoes and orthotic support may be needed
- Wrapping or taping the tender area has helped at times
- Physical therapy - I might prescribe therapy if I feel it could help a particular patient
- Crutches are rarely needed
- Air cast walking brace - I might prescribe it if symptoms are severe
- Surgery - never indicated for shin-splints

The End

Well, there you have it. We did it all in one week. These cases can be hard to diagnose properly as you can see from my "what else could it be?" list.

The Orthopaedic Clinic at Lakeview Community Wellness Center is there for you. It is our continued commitment to LCWC and to all of you.

All Orthopaedic problems including shin-splints can be evaluated at LCWC or at the office in Alma, 315 Warwick Dr., Alma, Michigan. Please call 989-463-6092 to schedule an appointment at either location. Future Lakeview Community Wellness Center dates are January 15 and January 29, 2010.

Our goal is simple - To help people return to more pain free, functional lives.

Good health. Good life. All the best to you.

Be well.

Dr. Haverbush