

SHIN SPLINTS

(Medial Tibia Stress Syndrome)



BASIC INFORMATION

DESCRIPTION

Pain in the lower leg brought on by exercise or athletic activity. *Shin splints* is a common term that has been used to describe a variety of different leg injuries and it is generally being replaced by more specific diagnostic terms. The most common shin pain is caused by medial tibia stress syndrome (MTSS). The tibia (shin bone) is the larger of the two bones between the knee and the ankle. Medial refers to the inside part of the tibia (the most common injury site).

FREQUENT SIGNS AND SYMPTOMS

- Pain, dull ache, or tenderness, and some-times swelling, redness, and warmth, in the inner side (medial), back side (posterior), or outer side (anterior) of the lower leg.
- Pain may come and go as activity continues.

CAUSES

It is an overuse condition that can be caused by several factors. This shin problem usually develops gradually over weeks to months or could occur after a single excessive or intense training session. The problem is exercise-induced, but the specific cause of the pain is difficult to pinpoint. It may be periostitis (inflammation of the outer layer of the bone), myositis (muscle inflammation), tendinitis (inflammation of the muscle-tendon complex) or a combination of two of these. Faulty foot mechanics contribute to the injury.

RISK INCREASES WITH

- Sports involving running (e.g., runners and sprinters, football, basketball, soccer, and rugby players); jumping activities such as gymnastics or figure skating.
- Training too quickly, too hard, and for too long.
- Training that involves switching from one type of sport to another (e.g., a triathlon).
- High impact aerobics or aerobic dancing.
- Poorly fitting or worn-out running shoes.
- Foot arches that are flat (pronated) or high (supinated), or muscle imbalance in leg muscles.

PREVENTIVE MEASURES

- Stretch and strengthen the muscles in the lower leg.
- Stretch before and after running.
- Avoid hard and uneven surfaces. Use soft surfaces such as dirt or grass for jogging, running, and walking.
- Warm up before the activity and avoid overtraining.
- Wear shoes that fit well, with good arch support.
- Try sports activities, such as swimming or biking that have less impact on the shins.

EXPECTED OUTCOMES

Healing time may range from a few days to two weeks to two months.

POSSIBLE COMPLICATIONS

- May progress to stress fracture.
- Shin splints may recur.



DIAGNOSIS & TREATMENT

GENERAL MEASURES

- Use ice massage over the painful area (in a circle about the size of a softball). Do this for 15 minutes at a time three or four times a day.
- After a few days, apply heat if you want. Use hot soaks, hot showers, or heating pads.
- Massage area gently and often to provide comfort and decrease swelling.
- See your health care provider if self-care does not help. A physical exam and x-ray or bone scan may be done to rule out a stress fracture.

MEDICATIONS

- For minor discomfort, use nonprescription anti-inflammatory drugs such as aspirin (not for children) or ibuprofen.
- Other nonsteroidal anti-inflammatory drugs may be prescribed.

ACTIVITY

- Discontinue sports or exercise until the pain is gone. Return to pre-injury activity level slowly.
- In some cases, severe pain may require the use of crutches for a short period of time.
- If foot mechanics are a problem, such as excessive pronation, special shoes, heel lifts, or orthotics (inserts for the shoes) may be prescribed. Orthotics can be non-prescription products. In some cases, custom-made orthotics are recommended.
- Try different exercises (cross-training) such as swimming or walking in water, bicycle riding, or regular walking.

DIET

No special diet.



NOTIFY OUR OFFICE IF

- You or a family member has painful shin splints.
- Mild symptoms don't improve within 2 to 3 weeks.

Special notes:

More notes on the back of this page