

Physical Therapy Corner: Shin Splints

http://www.nismat.org/ptcor/shin_splints

Joe Adias is a 29 year old police officer who jogs and plays basketball in his free time. He reports that his schedule has recently lightened up and he has been able to increase his regular workout. He has doubled his running distance and plays basketball every other day.

Over the past few weeks, Joe has been experiencing pain and tenderness over the front of his right leg. He incorrectly tried to work through the pain but without any success. Now a dull, achy pain is present in his right leg while sleeping at night.

Finally, Joe went to see his doctor, who diagnosed him with shin splints. He then referred Joe to a physical therapy clinic for treatment of this condition.

Contributing Factors

Factors that might contribute to shin splints include foot:

1. Muscles
 - weak anterior leg muscles
 - feeling tight posterior leg muscles
2. Training errors
 - hard running surface
 - recent increase in running speed or distance
3. Foot Wear
 - unsupportive shoes
 - no heel cushion hard heel
4. Foot Structure
 - fallen arches

Treatment

Typical treatment will likely include:

PHASE 1

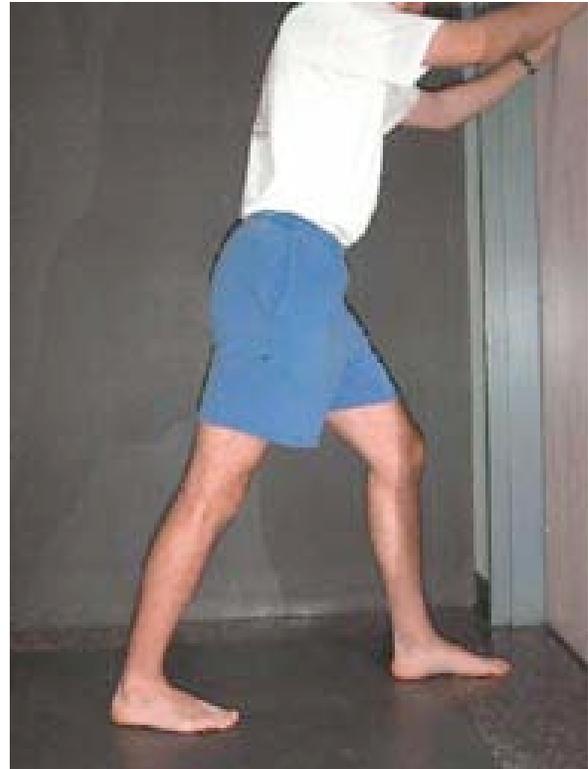
- Ice 10-15 minutes for 2-3x per day
- Anti inflammatory drugs
- Active rest-participate in activity was that does not stress the affected area but maintains cardiovascular fitness. An example would be bike riding.

PHASE 2

Continue as above and add:

- Appropriate shoe orthotics. For example, arch supports may be worn.
- Posterior leg stretching (Figures #1& 2) and Anterior leg stretching (Fig. #3).
- Anterior leg strengthening (Figures #4).

Figure 1: Gastroc Stretch



Keep involved leg back with the knee straight and heel on the floor. Slowly bend front knee and

lean into wall until stretch is felt in the calf of the back leg. Hold for 20 seconds and repeat 5 times.

Figure 2: Soleus Stretch



Similar to the gastroc stretch, however keep both knees bent and heels on the floor. Lean into wall until a stretch is felt in the lower calf. Hold for 20 seconds and repeat 5 times.

Figure 3: Anterior Tibialis Stretch



In a sitting position, cross the involved leg over the uninvolved leg. Pull the toes in a direction that will gently stretch the tissue on the top of the foot. Hold 20 seconds and repeat 5 times.

Figure 4: Toe Taps





Sit in a chair with arms resting on thighs. Begin to tap toes by lifting up foot except for the heel and returning it to the floor as fast as possible. You should start to feel the muscles in the front of the ankle working. Continue tapping for 20 seconds and repeat 5 times.

PHASE 3

- Limited running on treadmill or track surface at low speed, distance, and level plane
- Patient education: learn to recognize symptoms of shin splints in order to prevent reoccurrence and be able to administer self treatment to the area when symptoms return.

PHASE 4

- Return to sports
- Continue with stretch and strengthening of leg and ankle muscles.

If your symptoms are similar to Joe's, see your doctor or physical therapist for further evaluation. If you have diagnosed with shin splints previously, try including the exercises above.