Dr. Shockley's Health Tips

PLANTAR FASCITIS

Definition:
Inflammation of the plantar fascia, which is the thick band of connective tissue that spans the bottom of the foot from the heel to the base of the toes. When this tissue is placed under too much stress, the plantar fascia stretches too far & results in microtears, which then leads to inflammation of the fascia & surrounding tissues. These tears are covered with scar tissue, which is less flexible than the fascia & only aggravates the problem.

Symptoms:
Pain present for several days at the base of the heel most commonly. No history of a traumatic incident to cause the pain. An increase in pain with initial standing, walking, running. The pain seems to improve as the activity continues, then gets worse at the end of the day again. Tired achy feet at the end of the day; foot cramps. Improves with rest (long cessation of high impact activity). Worse after short periods of rest (several hours); often worse when first bearing weight after a night of sleeping; subsides within approximately 5 minutes of walking around.

Causes:
Stress, tension pulling on the plantar fascia. Inflexible calf muscles & tight Achilles tendons, which place more stress on the plantar fascia. Overpronation (feet roll inward too much upon impact). High arches & rigid feet, which are not as good at absorbing shock. Improper or worn shoes. Overtraining.

Self-Treatment:
If pain is mild, reduce training load & intensity. If the pain is severe, stop running or performing the offending activity for 1-2 weeks. Apply ice to the plantar fascia for 10-15 minutes every 2 hours & after activity in order to reduce the inflammation. Works well to freeze a water bottle & roll bottom of foot along it. Self-massage with hands or use a golf ball with arnica, biofreeze or another anti-inflammatory lotion to the plantar fascia. Exert enough pressure with the golf ball to feel a little tenderness while moving it back & forth under your foot. Strengthen the muscles in your feet by placing a towel/cloth on the floor & scrunching it up with your toes towards you. Grab some of the towel with your toes & pull the towel towards you & repeat. Return to training program gradually. Full recovery is usually between 6-8 weeks.

Medical Treatment:
If your injury doesn't respond within 2 weeks, go see a sports certified chiropractor (CCSP or DACBSP), MAT (Muscle Activation Techniques) therapist or physiotherapist. Then upon his/her recommendation, see a physiotherapist or orthopedic surgeon. These doctors have access to several modalities to aid the healing

process & further evaluate the severity of the condition. Avoid steroid injection: may lead to necrosis (tissue death), weakening of the connective tissue &/or scar tissue buildup & fat pad damage.

Alternative Exercises:

Swimming, pool running, cycling (in low gear) "spinning". Avoid or do very little weight-bearing exercises.

Preventative Measures:

Proper warm up, microprogress your way into your activity (i.e. If you're going to be running, start first with walking, then jogging, then running). Light stretching after running of the gastrocs (keep knee straight) & of the soleus (keep the knee bent) will aid in keeping the muscles loose. Have your shoes fit (someone who will do a gait analysis, put you on a treadmill, etc). Women should avoid wearing high heels on a regular basis as this shortens the muscle, which increases the stress on the tendon when wearing regular shoes & also flattens the arches in the feet that are necessary to keep tension off of the plantar fascia. Gradual progression of your training program & incorporate rest time into your training program as well. Avoid excessive hill training & speed work.

References:

Vizniak, N. & Carnes, M. Quick Reference Clinical Chiropractic Conditions Manual. Canada: DC Publishing International; 2004: 137-188.

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