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Dr. Iorio is a Board Certified Orthopaedic Surgeon with a special interest in disorders of the foot and ankle. He is experienced in general orthopaedics, occupational orthopaedics and the treatment of work-related injuries. Dr. Iorio has spent five years in association with occupational medicine practices in Wisconsin and Connecticut. His practice is devoted to office orthopaedics.

# Plantar Fasciitis

**P**lantar fasciitis or pain in the bottom of the foot is a common problem affecting people of all age groups, usually between the ages of 40-70. The cause is often unknown. Obesity is believed to be a contributing factor. Painful inflammation develops because of repetitive microtrauma at the origin of the plantar fascia that causes a traction periostitis and microtears. Entrapment of the nerve to abductor

digiti quinti, a branch of the lateral plantar nerve, is another frequent cause of pain. The much maligned heel spur is not the actual cause of pain in this condition.

The onset of pain localized to the plantar medial heel region is usually gradual. Pain is typically worse upon first arising. Things gradually improve after the first few steps but the pain typically worsens and becomes more aching later in the day. When nerve entrapment is present, the discomfort may radiate proximally and distally.

Physical examination reveals pain at the underside of the heel. The plantar fascia should be palpated on the stretch to find the source of the pain as well as for nodules or palpable defects. A positive tinell's test suggests nerve entrapment. Standing AP and lateral x-rays should be obtained to assess alignment of the foot as well as the presence of calcifications. A bone scan is helpful to identify the characteristic uptake at the origin of the plantar fascia and also to rule out a stress fracture pattern.

Treatment is multifaceted. Anti-inflammatory medication, rest, and ice massage to the painful area help reduce the inflammatory process. Patients should be instructed in plantar fascia stretching exercises. Physical therapy

for stretching and strengthening of the plantar fascia, ultrasound and iontophoresis is also very helpful. Orthotics such as arch supports with well-cushioned heels or heel cups should be employed. Plantar fascia night splinting helps prevent contractures that worsen symptoms. Recalcitrant cases can be treated with anesthetic/corticosteroid injections to the area of point tenderness. If pain persists despite these measures, short leg cast immobilization for 6-8 weeks may help resolve symptoms. Surgical treatment is reserved for those patients unresponsive to all the above measures.

