Plantar Fasciitis

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Definition
Plantar fasciitis is a localized inflammation of the plantar aponeurosis. The plantar fascia is a dense, fibrous membrane that spans the entire length of the foot, originating at the tubercle of the calcaneus and attaching at the proximal phalanges. The fascia protects the underside of the foot and helps support the arches.

Predisposing factors for plantar fasciitis may include anatomic or biomechanical abnormalities of the feet or lower extremities, inappropriate footwear, muscle tightness, obesity, overtraining or overuse. However, because the condition is caused by repetitive microtrauma, most people experience plantar fasciitis as part of an overuse syndrome following changes in their usual routines.

Signs and Symptoms
Patients often report severe heel pain upon weight bearing. Pain is typically worse in the morning or with the first steps after resting. Patients may note that their pain gradually improves with activity. Stretching with weight bearing causes increased pain. On examination, the point of maximal tenderness is usually on the medial calcaneal tuberosity. The pain may be aggravated by passively dorsiflexing or actively plantar flexing the foot.

Diagnosis
Evaluation of plantar fasciitis is usually based upon history and physical examination. Occasionally further investigations (xrays, US, CT, MRI) are performed to determine if an associated heel spur is present and to rule out other problems.

Treatment
Conservative treatments have long been the mainstay of treating plantar fasciitis. Initial treatments may include rest, ice, modified activity, and nonsteroidal anti-inflammatory medications. Appropriate footwear and/or custom orthotics addressing any anatomic or biomechanical abnormalities may also be effective. Physical therapy with an appropriate exercise program, plantar fascia night splints, and occasionally corticosteroid injections may also be prescribed by your physician should your pain persist. A newer treatment called Extracorporeal Shock Wave Therapy may also be effective for some people. Rarely, surgical intervention may be required for recalcitrant cases.