

## **Plantar Fasciitis**

The plantar fascia is a dense strip of tissue on the underside of the foot. It originates from the heel bone (*calcaneus*) and extends to the ball of the foot. Like the string on an archer's bow, the plantar fascia helps to support the arch of the foot as it regularly rises and falls during the walking or running cycle.

When we walk or run, the ankle and foot go through motions called pronation and supination to help the foot absorb shock at impact, adapt to the walking or running surface, and generate power for push-off. The arch of the foot normally rises and falls during these phases. The plantar fascia, loaded with the full weight of the body, is stretched or elongated when the arch flattens during pronation and it shortens as the arch rises during supination. Over time, this stress may lead to small tears in the tissue and the development of a bone spur on the heel bone.

The symptoms of plantar fasciitis include pain in the center of the heel when weight is placed on the foot, especially in the morning or after other long periods of inactivity. Prolonged standing, walking or running may worsen the symptoms.

Most patients recover from plantar fasciitis without surgery. Stretching exercises for the calf muscles on the back of the lower leg, ultrasound, anti-inflammatory medications usually represent the first line of defense. Supporting the arch with a well-fitted arch support, or *orthotic device*, may also help reduce pressure on the plantar fascia. A heel cup and even various taping procedures may lessen the stress on the plantar fascia and allow the area to heal. In more advanced cases, surgery is required to lengthen the plantar fascia and reduce pressure.

The above is intended as general information about plantar fasciitis. Please consult your physician or health care professional for information regarding your specific health issues.