



Plantar Fibroma and Plantar Fibromatosis

What is plantar fibroma?

A plantar fibroma is a benign nodule that grows on the bottom of the foot and usually appears in the second through sixth decade of life. It is usually slow growing and measures less than an inch in size. More invasive, rapid-growing and multi-planar fibromas are considered plantar fibromatosis. Both of them are benign tumors made up of cells found in ligaments.

What are symptoms of plantar fibroma?

Symptoms consist of a painful mass on the bottom of the foot, roughly in the middle of the arch or instep, between the heel pad and the forefoot pad. The mass will cause a soft convexity in the contour of the bottom of the foot that may be painful with pressure or footwear.

What causes plantar fibroma?

The cause is unknown but thought to have a genetic component. Trauma to the foot does not seem to be a factor.

What is a plantar fibroma's anatomy?

Plantar fibromas reside in the deep fascia of the foot between the skin and the first (superficial) layers of muscle. The more aggressive condition of plantar fibromatosis may involve the skin and the muscle layers and may also wrap around the local digital nerves and arteries.

How is plantar fibroma diagnosed?

There are a few conditions that can cause soft-tissue masses in the foot, including cysts, swollen tendons or tendon ruptures, nerve tumors (neurilemmomas) or fat tumors. Foreign body reactions from previous penetrating trauma can also cause a mass in the bottom of the foot, as can an infection. A more serious synovial cell sarcoma, a malignancy, will usually show calcification on X-ray and a more worrisome appearance on MRI. Clinical exam, X-ray and sometimes an MRI may be needed for diagnosis. Biopsy is usually not needed.

What are treatment options?

Asymptomatic fibromas may be observed. Painful fibromas may be treated with an off-loading insole or pad. Surgery is done for symptomatic fibromas when conservative treatment fails to give adequate pain relief. The recurrence rate is low for fibromas and significantly higher for plantar fibromatosis and in revision cases. Risks of surgery include wound complications, injury to local structures such as the digital nerves, and recurrence.

How long is recovery?

Recovery may be hastened by elevation of the foot and diligent control of swelling to help prevent blood clot formation and delayed wound healing. Return to unrestricted activity and footwear is in the one- to two-month range. Recurrence is rare for fibromas but more common in multiple lesions or if invasive lesions are encountered.

Potential Complications Complications

Potential complications include wound drainage or infection, a healed but painful wound, the return of a mass, and chronic neuritic pain, especially for an invasive lesion or in revision surgery.

How did I get a plantar fibroma?

You inherited it but we don't know on which gene.

How long should I take off work for surgery?

One to two weeks, if you can keep your foot elevated and stay on crutches, or longer if this is not possible.

What happens if I wait?

There is no harm in waiting.

