

The Role of the Podiatric Physician

The doctor of podiatric medicine is a foot care specialist with skills in recognition and treatment of diabetic foot conditions. Because diabetes is a systemic disease, affecting many organs of the body, ideal case management requires a team approach, involving the podiatrist as well as the family physician, several medical specialists, and a dietitian. The podiatric physician, as an integral part of the treatment team, has documented success in the prevention of amputations. It is one of the most serious conditions treated by podiatric physicians, whose training stresses salvage of the foot rather than amputation.



A comprehensive approach to prevention of complications must include good glucose control, adherence to diet, an exercise program, proper medication and hygiene, and regular foot care. Those who follow the medical team's advice have a good chance of preventing or delaying the complications of the disease, and living normal lives. Furthermore, with such a regimen as groundwork, it is estimated that more than half of the lower extremity amputations among people with diabetes could be prevented.

The key to preventing diabetic foot complications is early recognition and foot screening, at least annually, of at-risk individuals. Those individuals considered to be at high risk are those who exhibit one or more of six characteristics: (1) peripheral neuropathy, a nerve disorder generally characterized by loss of protective sensation and/or tingling and numbness in the feet; (2) vascular insufficiency, a circulatory disorder which inhibits blood flow to the extremities; (3) foot deformities, such as hammertoes; (4) stiff joints; (5) calluses on the soles of the feet; and (6) a history of open sores on the feet (ulcerations) or a previous lower extremity amputation.

Visit a Podiatric Physician Regularly

For the person with diabetes a number of practices and precautions should be employed. Regular visits to a podiatric physician for foot inspections, no less than annually and preferably more often, are recommended. The doctor may conduct specific diagnostic tests to assess the presence or progression of diabetes complications. Such tests may include assessments of circulation, using an instrument known as the Doppler for measurement of blood flow; vibration sense, using a tuning fork; sensation (light touch and deep pressure), using a plastic monofilament slightly thicker than a toothbrush bristle in what is called the Semmes-Weinstein test; and foot structure, using X-rays. The podiatric physician will probably also reinforce self foot care, reminding patients of previously dispensed advice. Here is a sizable list of "do's and don'ts."

The Do's and Don'ts of Diabetic Foot Care

Shoes are at the top of the list. Poorly fitted shoes are involved in as many as half of the problems that lead to amputations. Foot shape and size may change over the years; peripheral neuropathy contributes to change. Everyone, particularly those with diabetes, should be fitted by experienced shoe fitters for every new pair of shoes.

New shoes should be comfortable at the time they're purchased -- they should not require a break-in period -- but it is a good idea to wear them for only short periods of time at first. Shoes should have leather or canvas uppers, fit both the length and width of the foot, leaving room for the toes to wiggle freely, and be cushioned and sturdy. Athletic footwear may fit the bill nicely. It's a good idea to change shoes during the day, to relieve pressure areas.

Avoid high heels and shoes with pointed toes. Never wear shoes with open toes or heels, including sandals, especially those with straps between the first two toes. Shake shoes out and feel inside them for rough stitching or foreign objects, such as small pebbles. Never go without socks. Diabetics who have difficulty finding shoes that fit should ask a podiatrist to prescribe corrective shoes, or refer them to a shoe specialist.

Wash feet daily using mild soap and lukewarm water. Those with diabetes should always test bath temperature with a thermometer or the elbow since the feet may be unable to detect scalding temperatures. Dry feet carefully between the toes, and dust them with talcum powder.

For cold feet at night, wear socks (don't use heating pads or hot water bottles, or other external heat sources).

Feet and toes should be inspected daily for cuts, bruises, and sores, or other changes that are less obvious. If self-inspection is hampered by age or other factors, use a mirror or get the assistance of another person.

Smokers should give up the habit. The consumption of alcohol should be moderated. Tobacco can contribute to circulatory problems, and alcohol to neuropathy.

Exercise is important. Walk as frequently as possible; it's the best overall conditioner for the feet.

People with diabetes are commonly overweight. That approximately doubles the risk of complications; close observance of good dietary habits is important.

Use commercially available hand or foot lotion on your feet at least twice a day to keep them lubricated and prevent cracking.

Cut toenails straight across, then use an emery board to gently file away sharp corners. Don't cut into the corners.

Never try to cut calluses with a razor blade, or anything else, without professional guidance, and never use commercial preparations to remove corns or warts; they contain chemicals that can burn the skin.

Wear thick, soft socks; avoid mended socks or those with seams, which could cause blisters or other skin injuries. Never go barefoot, even inside your own home, and especially out of doors on unfamiliar terrain such as the beach or grassy areas.

A Major Health Concern

Diabetes mellitus is a chronic disease which afflicts about 16 million people in the United States, half of whom are unaware they have the disease. It is a metabolic disease characterized by elevated glucose (blood sugar), resulting from defects in secretion of the hormone insulin, defects which cause tissue to resist absorption of insulin, or both. Chronic elevation of blood sugar (hyperglycemia) may be associated with long-term damage to the eyes, heart, kidneys, feet, nerves, and blood vessels.

Symptoms of hyperglycemia may include frequent urination, excessive thirst, extreme hunger, unexplained weight loss, tingling or numbness of the feet or hands, blurred vision, slow-to-heal wounds, and susceptibility to certain infections. Those who have any of these symptoms and have not been tested for the disease should see a physician without delay.

An Unwelcome Lifetime Companion

Diabetes, once diagnosed, is present for life. Considerable research is focused on finding a cure, and much progress has been made in treatment and control of the disease.

The majority of people with diabetes have type II diabetes. Type I, insulin-dependent diabetes mellitus, once referred to as juvenile, or juvenile-onset diabetes, afflicts 5 to 10 percent of people with diabetes. Type II, non-insulin-dependent diabetes mellitus, once known as adult-onset diabetes, afflicts the other 90-95 percent, many of whom use oral medication or injectable insulin. The vast majority of those people (80 percent or more) are overweight, many of them obese. Obesity itself can cause insulin resistance.

For the person with diabetes who has not yet developed foot complications, there are warning signs which should be recognized and called to the attention of the family physician or podiatrist.

They include:

- color changes of the skin
- elevation of skin temperature
- swelling of the foot or ankle
- pain in the legs, either at rest or while walking
- open sores, with or without drainage, that are slow to heal
- ingrown and fungus-infected toenails
- corns or calluses with bleeding within the skin
- dry fissures (cracks) in the skin, especially around the heel

Ulceration can be a common occurrence of the diabetic foot. Poorly fitted shoes, or something as seemingly trivial as a stocking seam, can create a wound that cannot be felt and may not immediately be seen by someone whose level of skin sensation has been minimized. Left unattended, such an ulcer can quickly become infected and lead to serious consequences.



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**DIABETES
AND YOUR FEET**

Podiatric Care and Treatment

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