

Easy Foot Test Just a LEAP Away

By John West

Closing the Gap, Diabetes • February/March 1999

We fish with it. We use it in our weed-wackers. Some people even use it to hang pictures. So, how does something that simple make such a big difference to thousands of people with diabetes?

It's called monofilament—a small piece of clear nylon wire-like, string 37 mm long, 5.07 mm in diameter, that will exert 10 grams of force when applied to the skin and it is all that is needed to perform a simple, yet effective foot screen test for those at risk of developing circulatory foot problems from diabetes.

The test, called the Diabetic Foot Screen, identifies those patients who have lost vascular protective sensation. It is the brainchild of 1992 efforts by the Lower Extremity Amputation Prevention (LEAP) Program, at the Health Resources and Services Administration's (HRSA) Gillis W. Long Hansen's Disease Center, Carville, La., to create a simple program to reduce lower extremity amputations due to diabetes by 40 percent.

According to Bob Rolfsen, director of the LEAP Program at Carville, the filament was originally designed to be used in a Patient Empowerment Program study.

"We wanted to determine if patients, sometimes with the help of family members, could use the filament to test themselves and get the right answer without special training," he said.

In the study, nine centers in eight states were selected because of their ability to represent a diverse socioeconomic group. In all, 196 self-screening kits with surveys were sent to patients with 145 surveys being returned for a 74 percent response rate.

"The study was successful and the results were published in the January 1998 issue of *Diabetes Care*, the professional journal of the American Diabetes Association," Rolfsen said.

"Authors of the study reported that 87 percent of the patients who participated in the study obtained the correct results as documented by their primary care provider," he added.

Rolfsen pointed out that the filament has now become the "tool of choice" and that it has made a dramatic difference in early detection.

"Seven years after the LEAP program started and sensory testing began, it has become the accepted and recommended method for determining loss of protective sensation in the diabetic foot," he said. "It is recommended that patients be screened at least once a year and if there is a loss of sensation at any of the tested sites, the patient should go see a provider as soon as possible," he added.

Since diabetes is generally a self-managed disease, patients provide most of their own daily care. Statistics show that patients who are

empowered with awareness of their own disease-related problems, treatment options, and tools for self-care, make healthier choices in the management of their diabetes.

Lower extremity amputation is a serious consequence of diabetes complications. In fact, 50 percent of all non-traumatic amputations are the result of complications from diabetes, while 15 percent of persons with diabetes sustain lower extremity ulcers.

Each year, almost 67,000 lower extremity amputations cost health care providers nearly \$268 million. Additionally, people with diabetic foot ulcers are responsible for 20 percent of all hospital stays.

Sharley Chen, Division of Programs for Special Populations, Bureau of Primary Health Care, HRSA, said that Congress mandated \$3 million of the FY 1999 Budget to be set aside for implementation and evaluation of the diabetes Lower Extremity Amputation Prevention (LEAP) programs in areas served by community health centers in the states of Louisiana, Alabama, Georgia and Mississippi.

"These states have high incidences of diabetes that result in lower extremity amputations," she said. "Congress also funded pilot programs in conjunction with the Louisiana State University School of Medicine, the University of South Alabama, and the Roosevelt Warm Springs Institute for Rehabilitation," she added.

Rolfsen said that the Centers for Disease Control and Prevention (CDC) statistics show that minorities are more at risk of diabetes and the complications that go with it such as blindness, kidney problems and hypertension.

"We need to stress an increase in the level of awareness about diabetes and its complications and make sure that people are aware of the existence of federal health centers, where anyone can be seen regardless of their ability-to-pay or status of citizenship," he said.

The LEAP Program, the National Diabetes Education Program and its partners are charged with the responsibility of developing a national awareness coalition. The American Pharmaceutical Association has joined forces with the group and is spearheading a project to place a LEAP Filament into every diabetes medication prescription filled by every pharmacist in the country during the month of November 1999.

"We need to get people in leadership positions or provider roles to take advantage of every opportunity to get filaments and instructions on how to use them into the hands of individuals," Rolfsen said.

In addition to pharmacies, patients can call 1-800-373-4325 to obtain a filament or browse the LEAP Program Web site at: <http://www.bphc.hrsa.dhhs.gov/leap> and fill out the order form to receive one free by mail. ❖

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Diabetic Foot Screen:

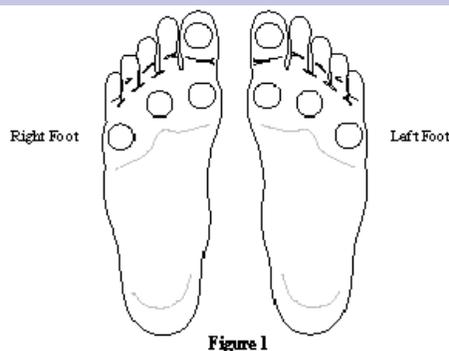
Patient Empowerment Program

Foot Screen Instructions

(You may screen your own feet or ask a relative, friend or neighbor to do it for you.)

1. Holding the filament by the paper handle, touch each foot at the four circled sites as shown below in Figure 1. (*Note: Touch the filament along side of and NOT on a scar, callus or ulcer.*)
2. Touch the filament to the skin with a smooth motion, lasting a second or two, like in the Step 1, Step 2, and Step 3 drawings below.
3. Push hard enough with the filament to make it bend (See Step 2).
4. Place a ([]) in the circle if you can feel the filament at that site and a (,) if you cannot feel the filament at that site.

NOTICE: *If you have a (,) in any circle, take this form as soon as possible to your nurse or physician.*



Provider: If you have a question about sensory testing, please call (800) 642-2477

