



New Directions in Diabetes Care

As part of CAFP's New Directions in Diabetes Care initiative, *California Family Physician* is featuring a new column that highlights clinical practice re-design and patient education topics. This column strives to bring you practical information and offers Prescribed CME credits (see page 14 for the CME Post-test). Questions? Contact Shelly Rodrigues at srodrigues@familydocs.org.

Foot Care for People with Diabetes

FOOT ULCERS remain a common cause of morbidity for people with diabetes, with an annual incidence of between one and four percent, and a lifetime incidence of up to 25 percent.¹ Yet, despite expert opinion and increasing objective evidence that routine foot examinations and appropriate early intervention can reduce the incidence of adverse outcomes, many of us have found it difficult to put them into our practice. This article briefly summarizes preventive foot care recommendations from the American Diabetes Association (ADA) and offers suggestions for incorporating these recommendations into our daily practice.²

The first step to prevention of foot ulcers is to identify patients at risk. The risk of foot complications is closely related to the development of peripheral neuropathy and peripheral vascular disease. In addition, patients with microvascular complications such as retinopathy or diabetic neuropathy are also at increased risk.

Mechanical factors can also increase the risk. The risks of all of these complications increase over time, especially for patients with poor glycemic control.

The ADA recommends that all people with diabetes should have an annual foot exam to identify high risk foot conditions. The recommended foot exam includes an evaluation of 1) foot structure and biomechanics, 2) skin integrity, 3) vascular status, and 4) protective neurological sensation. Foot structure and biomechanics can be assessed by noting

abnormalities in joint mobility, balance, and gait. Skin exams should include a look between the toes and attention to problems such as thickened nails or calluses. Vascular status should be assessed by inquiring about symptoms of claudication and by checking pedal pulses. Neurological sensation should include testing with a standardized Semmes-Weinstein 5.07 (10g) monofilament. Individuals who are found to have one or more high risk conditions should have a visual inspection of their feet at every diabetes visit.

Interventions to prevent high risk conditions should be high on the list of every family physician. These interventions include maintaining tight glycemic control whenever possible, and smoking cessation. Patients with calluses or thickened nails should have them debrided, and referral to a podiatrist in these cases is often helpful. In many cases, protective cushioning

or footwear may help prevent complications due to poor biomechanics. Minor conditions such as dry skin and tinea pedis should be treated aggressively. Patients should be educated about skin and nail care and routine self examination, and encouraged to promptly report any skin breakdown or loss of sensation in the feet. Suspected vascular and neurological abnormalities should be carefully managed, and referred for additional specialty evaluation and treatment when necessary.

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Learning Objectives



Covered in CFP Post-test, page 14.

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After reading this article, the physician should be able to list successful patient interventions and the recommended foot exam evaluation steps.

DIABETES FOOT EXAM

Patient Name: _____
Last First MI

DOB: _____ Medical Record #: _____

1. DETAILED FOOT EXAM: *Initially and then yearly*

Date: _____

Indicate presence (+) or absence (-) in the space below:					
	Dorsalis pedis pulse	Posterior tibial pulse	Ulcer (note size if present)	Bony deformity/ Callus	Loss of hair/ Atrophic skin
Right					
Left					

Indicate presence (+) or absence (-) of sensation in 5 areas using 10gm monofilament

Notes:

Education/education materials given

Provider Signature: _____

VISUAL INSPECTION ONLY: *at every diabetes care visit*

2. Date: _____

- Normal Abnormal; specify _____
 Education/education materials given
 No referral Referral to _____

Provider Signature: _____

3. Date: _____

- Normal Abnormal; specify _____
 Education/education materials given
 No referral Referral to _____

Provider Signature: _____

4. Date: _____

- Normal Abnormal; specify _____
 Education/education materials given
 No referral Referral to _____

Provider Signature: _____

Putting Recommendations into Practice


To many of us, these recommendations are already well-known. But how can busy family physicians put them into practice without disrupting other important patient care activities? Here are a few simple suggestions:

1. Post signs in exam rooms requesting that patients with diabetes take off their shoes at each diabetes visit.
2. Make sure that high risk foot conditions are prominently listed in each patient's problem list.
3. Create a flow sheet in each patient's chart that reminds you when important diabetes tests, such as routine foot exams, are due.
4. Purchase Semmes Weinstein 5.07 (10g) monofilaments for your office and place them in each exam room.

They can be ordered from many medical supply companies (for \$10 to \$20 each), and often come complete with instructions for use and forms that can be used to document your exam. Examples of forms to document your care can be downloaded at www.ompro.org/downloads/hcqip/footexamsticker.pdf and www.ndep.nih.gov/resources/feet/screenin.htm.

5. Train nursing staff to conduct diabetes foot exams that include a thorough examination of the skin, pulses, and monofilament testing, and to provide patients with instructions for foot care. The National Diabetes Education Project (NDEP) has a good Web site with foot examination guidelines and flowsheets. www.ndep.nih.gov/resources/feet/screenin.htm.
6. An excellent set of foot-care instructions, in both English and Spanish,

for patients with diabetes can be downloaded from the AAFP at <http://familydoctor.org/352.xml>. The NDEP is another good source of patient information in multiple languages (see URL above). Having such handouts readily available at the time of your visit can streamline the process of care.

You may have your own solutions to the demands of diabetes foot care. If so, please share them with us so we can pass them on to your fellow family physicians! 

Dr. Potter is the chair of CAFP's Committee on Continuing Professional Development.

References

1. JAMA 2005;293:217-218. Also available online at <http://jama.ama-assn.org/cgi/content/abstract/293/2/217>.
2. Diabetes Care 27:S63-S64, 2004.

California Family Physician FALL 2005: The Diabetic Foot Exam – CME Post-Test



Covered in CFP Post-test, page 14.

Check all that apply:

- | | |
|---|---|
| <p>1. Patients with diabetes should have foot exams:</p> <ul style="list-style-type: none"> <input type="radio"/> a. Every visit <input type="radio"/> b. Annually <input type="radio"/> c. Every three years <input type="radio"/> d. When the patient complains of pain or other discomfort <p>2. The risk of foot complications is closely related to:</p> <ul style="list-style-type: none"> <input type="radio"/> a. Peripheral neuropathy and peripheral vascular disease <input type="radio"/> b. Retinopathy <input type="radio"/> c. Diabetic neuropathy <p>5. Please list one activity you will undertake in your practice to improve your rate of foot examination for patients with diabetes.</p> | <p>3. The recommended foot exam includes an evaluation of:</p> <ul style="list-style-type: none"> <input type="radio"/> a. Foot structure and biomechanics <input type="radio"/> b. Skin integrity <input type="radio"/> c. Vascular status <input type="radio"/> d. Protective neurological sensation <input type="radio"/> e. Cuts or abrasions <p>4. Interventions might include:</p> <ul style="list-style-type: none"> <input type="radio"/> a. Tight glycemic control <input type="radio"/> b. Smoking cessation. <input type="radio"/> c. Debrided <input type="radio"/> d. Patient self-management techniques <input type="radio"/> e. Referral |
|---|---|

Name: _____ AAFP/CAFP Membership # _____

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