



How to do a Semmes Weinstein monofilament exam

By Nancy Morgan, RN, BSN, MBA, WOC, WCC, DWC, OMS

Each month, *Apple Bites* brings you a tool you can apply in your daily practice.

Description

According to the American Diabetes Association, all patients with diabetes should be screened for loss of protective sensation in their feet (peripheral neuropathy) when they are diagnosed and at least annually thereafter, using simple clinical tests such as the Semmes-Weinstein monofilament exam.

The Semmes-Weinstein 5.07 monofilament nylon wire exerts 10 g of force when bowed into a C shape against the skin for 1 second. Patients who can't reliably detect application of the 5.07, 10-g monofilament to designated sites on the plantar surface of their feet are considered to have lost protective sensation.

Steps

- 1 Place the patient in supine or sitting position with shoes and socks removed.

View: A monofilament test



- 2 Tell the patient that you're testing for loss of protective sensation, which increases the risk of foot ulcers and amputation.
- 3 Touch the 5.07 monofilament wire to the patient's skin on the arm or hand to demonstrate what the touch feels like.
- 4 Instruct the patient to respond "Yes" each time he or she feels the pressure of the monofilament on the foot during the exam.
- 5 Instruct the patient to close his or her eyes and keep toes pointing straight up during the exam.



- 6 Hold the monofilament perpendicular to the patient's foot. Press it against the foot, increasing the pressure until the monofilament bends into a C shape. (The patient should sense the monofilament by the time it bows.)
- 7 Hold the monofilament in place for about 1 second. Press the monofilament to the skin so it buckles at one of two times as you say "Time one" or "Time two." Have the patient identify at which time he or she was touched. Randomize the sequence of applying the filament throughout the examination.
- 8 Locations for testing: On both feet, use the first, third, and fifth metatarsal heads and plantar surface of the distal hallux and third toe (see diagram). Avoid callused areas.

- 9 Record response on foot screening form with "+" for Yes and "-" for No.

Tip

Neuropathy usually starts in the first and third toes and progresses to the first and third metatarsal heads. It's likely that these areas will be the first to have negative results with the Semmes-Weinstein monofilament exam. ■

Nancy Morgan, cofounder of the Wound Care Education Institute, combines her expertise as a Certified Wound Care Nurse with an extensive background in wound care education and program development as a nurse entrepreneur. Read her blog "[Wound Care Swagger](#)."

Information in Apple Bites is courtesy of the [Wound Care Education Institute \(WCEI\)](#), copyright 2013.



Surfing the web?

Check out

www.WoundCareAdvisor.com

- Access journal content... current and archival
- Interact through blogs and our social network
- Give us your opinion
- Sign up for our free e-newsletter

Check the site often for new wound care clinical information, news, and insight from authoritative experts.