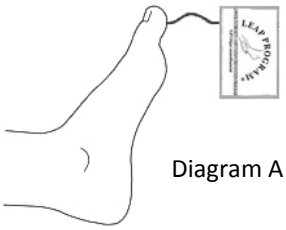
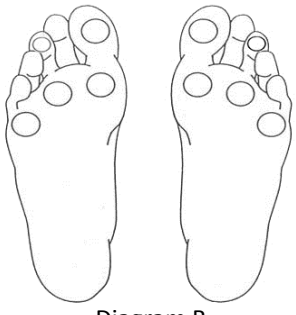
Monofilament, Testing Semmes Weinstein

Purpose: To screen for loss of protective sensation in a patient with diabetes

Policy: Monofilament exam will be performed annually for persons with Diabetes and quarterly for high risk or patients with diminished sensation.

Equipment:

- Gloves
- 5.07 (10 gram) monofilament wire
- writing instruments and paper or documentation form

Steps	Key Points
1. Explain procedure.	
2. Place patient in supine or sitting position with shoes and socks removed.	
3. Touch the monofilament wire to patient's skin on arm or hand to demonstrate what the touch feels like.	
4. Instruct patient to respond "yes" each time they feel the pressure of the monofilament on their foot during the exam.	
5. Instruct patient to close their eyes with 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 10-g MF by the time that it bows. (See diagram A)	 Diagram A Do not apply over ulcer, callus, scar, or necrotic tissue; apply along the perimeter of the abnormality
7. Hold in place for about 1 second. Press the filament to the skin such that it buckles at one of two times as you say "time one" or "time two." Have patients identify at which time they were touched. Randomize the sequence of applying the filament throughout the examination.	Do not slide monofilament over the skin. Vary time frame between applications.
8. Locations for testing: (1st, 3rd, and 5th metatarsal heads and plantar surface of distal hallux and third toe on both feet. (See diagram B)	 Diagram B
9. Record response on foot screening form with "+" for yes and "-" for no.	
10. Repeat testing twice at each site and randomly include a "sham" application in which the 10-g MF is not applied.	Test sites in random order Do not make repetitive contact in same site.
11. Protective sensation is considered to be present if the patient correctly answers two or more of the three applications, one of which was a sham. If the patient correctly answers only one or none of the three applications, return and retest that site. The patient is considered to have insensate feet if they fail on retesting at just one or more sites on either foot.	
12. Document findings in medical record or Monofilament testing form.	

Boulton AJ. The Comprehensive Diabetic Foot Examination and Risk Assessment. In Armstrong DG and Lavery LA (eds) Clinical Care of the Diabetic Foot, Second Edition, Alexandria, VA; American Diabetes Association: 2010. Chapter 2 pp. 8-15.

Boulton AJ, Armstrong DG, Albert SF, Frykberg RG, Hellman R, Kirkman MS, Lavery LA, Lemaster JW, Mills JL Sr, Mueller MJ, Sheehan P, Wukich DK; American Diabetes Association; American Association of Clinical Endocrinologists. Comprehensive foot examination and risk assessment: a report of the task force of the foot care interest group of the American Diabetes Association, with endorsement by the American Association of Clinical Endocrinologists. Diabetes Care. 2008 Aug; 31(8):1679-85.