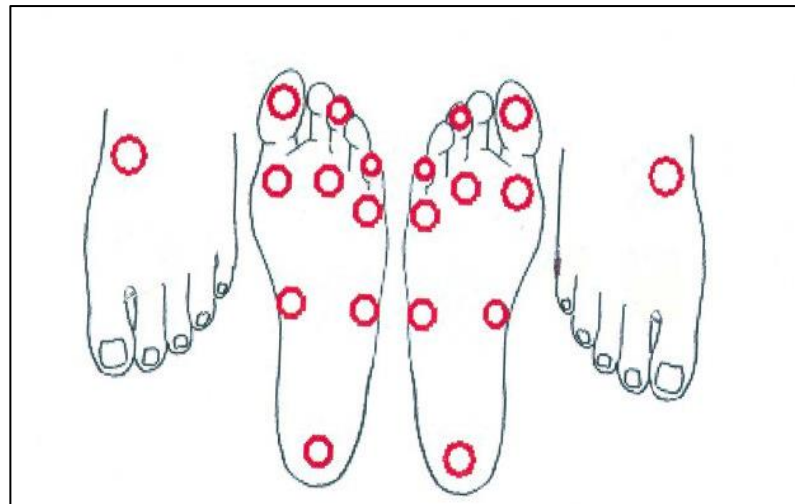


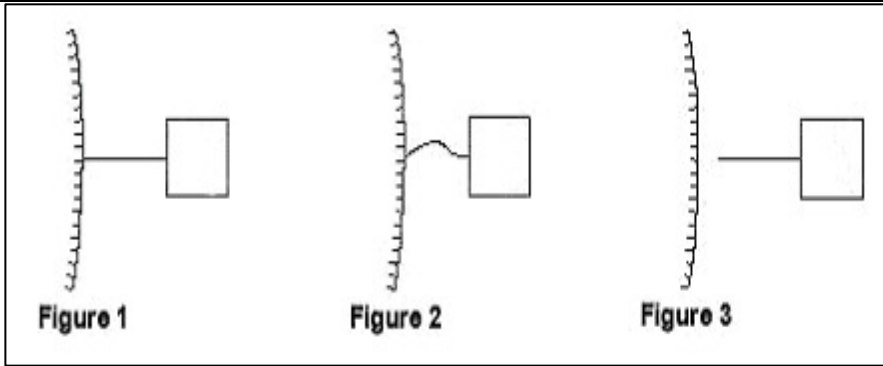
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| Title | Monofilament Testing for Loss of Protective Sensation of Diabetic/Neuropathic Feet (Adults and Children) |
| Background | <ul style="list-style-type: none"> Neuropathy causes a loss of protective sensation in the feet, which increases the risk of skin breakdown over the weight bearing surfaces. There are three types of neuropathy: <ul style="list-style-type: none"> Sensory neuropathy – loss of sensation Autonomic neuropathy – loss of autonomic system functioning Motor neuropathy – loss of intrinsic muscles Diabetes, spina bifida, Hansen’s disease, lupus, AIDS/HIV, cancer, vitamin B deficiency, MS, uremia, vascular disease, Charcot-Marie –Tooth disease, and toxins and toxic syndromes (such as excessive alcohol use) are some of the conditions that can result in peripheral neuropathy Monofilament testing should be conducted when patients have a diagnosis of diabetes, and/or a diabetic foot ulcer, and/or numbness/tingling/burning/”crawling” sensation in one or both feet Monofilament testing should be done at least once a year The 5.07 Semmes-Weinstein monofilament is calibrated so that it takes 10 grams of force to bend it when touched on the skin of the foot. Inability to detect this degree of force indicates that the client has a loss of protective sensation To avoid errors in testing, the monofilament is never used over areas of scarring, calluses, wounds, or necrotic tissue Testing for sensation is especially important for amputees to determine areas of insensitivity and progression of neuropathy |
| Indications | This procedure is intended to be used by front line registered health care providers to assist with their assessment and management of individuals with a diabetic and/or a neuropathic foot/foot ulcer. |
| Procedure | <p>Assessment</p> <ol style="list-style-type: none"> Determine whether the performance of this procedure is appropriate for the person presenting to you, i.e. any person with a diagnosis of diabetes with or without a foot ulcer and/or any person complaining of numbness, tingling, burning, or crawling sensations in their feet or who has a diagnosis of peripheral neuropathy This procedure should be used in conjunction with a holistic patient assessment. Look through the person’s chart for any prior Monofilament testing results, for comparison purposes <p>Planning</p> <ol style="list-style-type: none"> Expected outcomes: <ol style="list-style-type: none"> Information from your Monofilament assessment will contribute to the holistic patient assessment The Health Care Provider will be able to use the Monofilament assessment information as part of the holistic assessment to initiate/modify and implement an appropriate, interdisciplinary, person-centered plan of care Explain the procedure and purpose of the Monofilament assessment to the person and/or their SDM/POA , and obtain verbal or implied consent |

Implementation

1. Provide for privacy and ensure the person is in a comfortable position to facilitate the assessment (ideally a supine position).
2. Ensure adequate lighting
3. Wash your hands and put on clean gloves
4. Have the patient remove shoes and socks if not already done so. Assist as needed
5. Assess the person's feet for areas of scarring, calluses, wounds, or necrotic tissue – AVOID testing with the Monofilament over such areas
6. Show the person the Monofilament and touch the Monofilament to the skin on the person's arm or cheek, so that they may appreciate what the touch of the Monofilament on their skin should feel like.
7. Instruct the person to tell you when they feel the Monofilament touch by saying "YES", when you are doing the testing. Ensure that the person has understood the instructions BEFORE beginning the test
8. Instruct the person to close their eyes, and then randomly test the 10 test sites on each foot, as per the diagram below:



9. To test sites using the Monofilament:
 - a. Hold the monofilament perpendicular to the foot (as per the diagram below)
 - b. Touch the skin with the Monofilament, using a steady motion, and apply force until the Monofilament bends approximately 1cm (see the diagram below):

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| | <div data-bbox="407 191 1284 554">  </div> <ol style="list-style-type: none"> c. Hold the Monofilament in that bent position for approximately two seconds, and then remove from the skin d. Continue to test the remaining nine test spots, and repeat testing on any areas the person does not indicate they have felt, up to three times to confirm absence of sensation e. If there is an ulcer, callus or scar on the foot apply the monofilament on an area adjacent to these rather than directly over them <ol style="list-style-type: none"> 10. Document any locations where the person did not feel the Monofilament 11. Assist the person to a comfortable position and with any clothing removed for the purpose of the testing, as needed 12. Remove and dispose of your gloves in the appropriate receptacle and wash your hands 13. Discuss the findings of the assessment with the person and/or their SDM/POA C and implement referrals and interventions indicated 14. Share the results of the Monofilament testing with the interdisciplinary members of the person's wound care team 15. Complete/update and initiate the person's interdisciplinary person-centered plan of care, based on your Monofilament testing and overall holistic foot/lower leg assessment, as per your organization's policy 16. Compare Monofilament results with previous results, to determine if the person's peripheral neuropathy is progressing, and to guide further interventions |
| References | <ol style="list-style-type: none"> 1. Diabetes Canada. 2018. Monofilament testing in the diabetic foot. Available at: http://guidelines.diabetes.ca/docs/cpg/Appendix-12.pdf 2. British Columbia provincial Nursing Skin and Wound Committee. 2012. Procedure: Monofilament testing for loss of protective sensation of diabetic/neuropathic feet for Adults & Children. Available at: https://www.clwk.ca/buddydrive/file/procedure-monofilament-testing/?download=106%253Aprocedure-monofilament-testing-for-lops 3. Elftman N, Conlan JE. Management of the Neuropathic Foot. In: Sussman C, Bates-Jensen B., Eds. Wound Care: A collaborative practice manual for health professionals. Third Ed. Baltimore: Lippincott Williams & Wilkins, 1997:421-462. |