

Podiatry Services

Screening of the Diabetic Foot How to use of a 10g Monofilament

The 10g monofilament is an objective and simple instrument used in screening the diabetic foot for loss of protective sensation.

It is important that a properly calibrated device is used to ensure that 10g of linear pressure are being applied so a true measurement is being assessed.

Recommended devices are:

Baileys Instruments

Product number CH533527 Wilbraham Road, Chorlton-cum-Hardy, Manchester M21 0UF Tel 0161 860 5849 <http://www.baileyinstruments.co.uk>

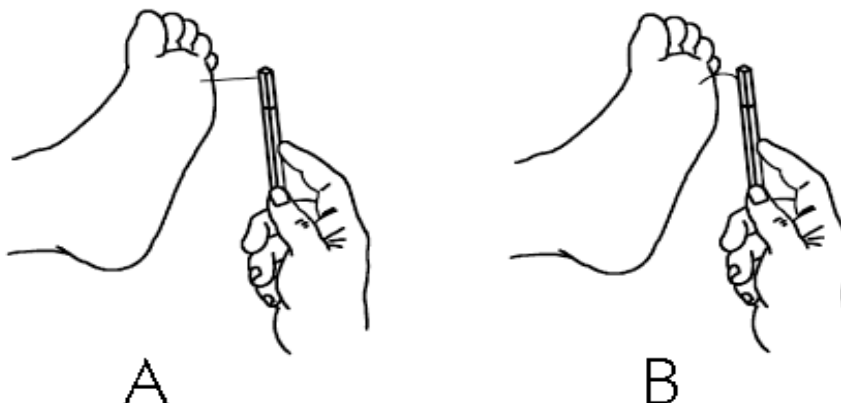
Owen Mumford

Brook Hill, Woodstock, Oxon, OX20 1TU
Tel: (01993) 812021 <http://www.owenmumford.com>

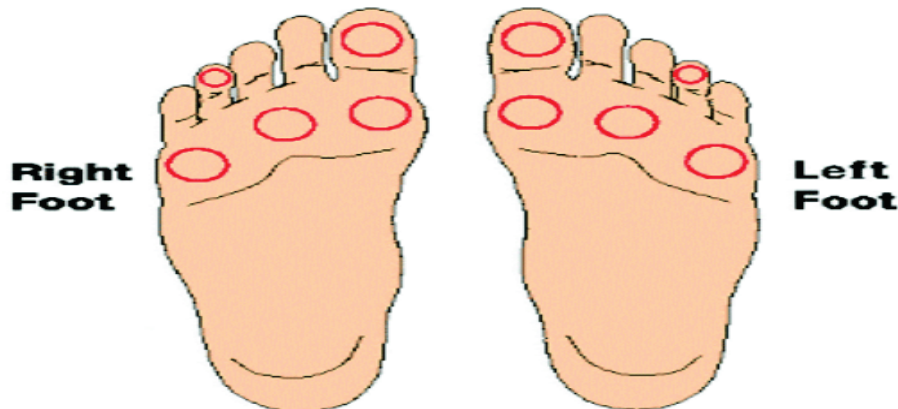
It is also important that the device used is 'rested' for 24 hours following patient screening to allow recovery time which will maintain accuracy (Booth & Young.2000). Bailey Instruments advises replacement after testing 10,000 times. If you use 10 sites per foot in your assessment, this is 20 sites per patient Therefore you need to replace your monofilament after 500 patients have been tested. Ideally, in clinical practice you should alternate between two monofilaments. As a general guide it should be replaced every 6 months for frequent use and 12 months for infrequent use. Also, it should be replaced if the filament becomes damaged or bent.

Using the Monofilament

- The examination should be done in a quite and relaxed setting and the patient should not be able to see if and where the examiner applies the filament.
- First apply the monofilament on the inner wrist so the patient knows what to expect. This also serves to 'warm' the monofilament up.
- Apply sufficient force to cause the filament to bend or buckle (see diagram below about 1 cm).



- The total duration of the approach, skin contact, and departure of the filament should be approximately 2 seconds.
- Apply the filament along the perimeter and **NOT ON** an ulcer site, callus, scar or necrotic tissue. Do not allow the filament to slide across the skin or make repetitive contact at the test site.
- 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. Randomise the sequence of applying the filament throughout the examination. The site can be repeated to ensure accuracy.
- The 5 sites per foot to be tested are shown below



- Loss of protective sensation = No feeling in less than 8 sites in total
Patient is deemed at Risk
- The monofilament should be wiped with a detergent cloth after use

Diabetes Foot Risk Categorisation

Risk Category	Findings	Action
Low Risk	No Risk Factors Present Normal sensation No Signs of Peripheral Arterial Disease (PAD)	Annual primary care review and diabetes foot education
Increased Risk	One risk Factor Present Loss of sensation Signs of PAD Callus present /foot /toe deformity	Refer to Community Podiatry (01271 341509 or email ndht.podiatry@nhs.net)
High Risk	Previous ulceration or amputation or more than one risk factor present Discolouration	Refer to Community Podiatry (01271 341509 or email ndht.podiatry@nhs.net)
Active	Ulceration, Infection Critical Ischaemia or gangrene Unexplained red, hot swollen foot Suspected Charcot's Severe neuropathic pain	Refer to NDDH foot clinic Ulcer with spreading infection/swelling/discolouration within 24 hours out of hours via A&E Email: ndht.diabeteshotfoot@nhs.net if no response within 4 hours call on call surgical team at NDDH 01271 322577 or send to A&E. Refer to Community Podiatry Non infected ulcers with mild infection start antibiotics if not responding within 2 weeks. (01271 341509 or email ndht.podiatry@nhs.net)