

## 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>

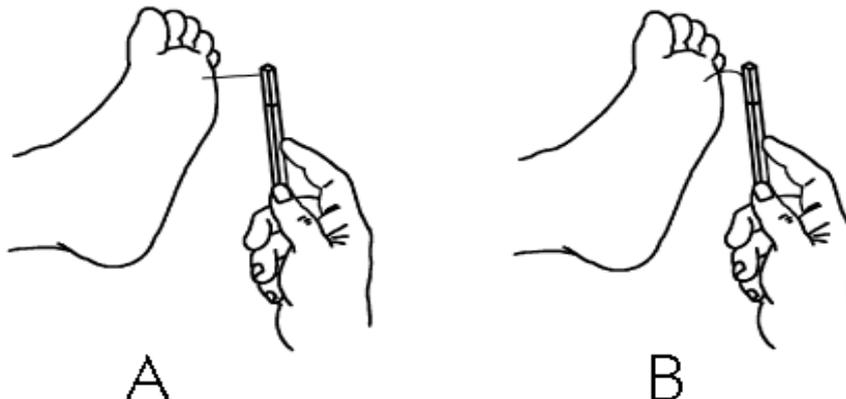
#### **Owen Mumford**

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

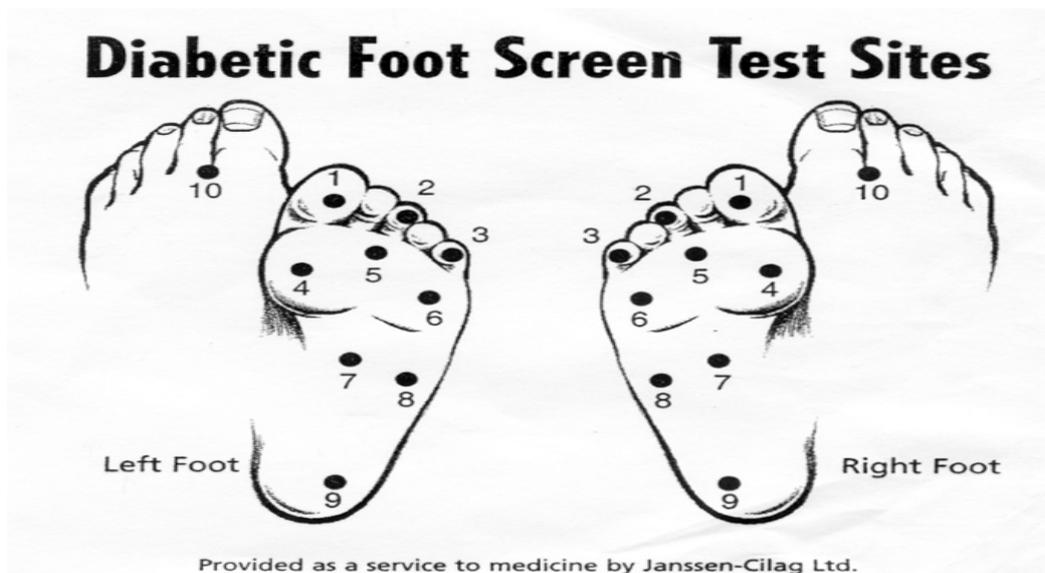
It is also important that the device used is 'rested' for 24 hours following patient screening to allow recovery time which will maintain accuracy (Booth & Young.2000). Bailey Instruments advises replacement after testing 10,000 times. If you use 10 sites per foot in your assessment, this is 20 sites 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 10 sites to be tested are shown below



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

### Risk Categorisation

Based on the foot examination this will determine the patient's risk (Individuals who are identified as "increased/high risk" may require a more comprehensive examination)

Risk Category	Findings	Action
Low Risk	Normal sensation & palpable pulses (All sites +ve)	Annual review and diabetes foot education
Increased Risk	Neuropathy (>8 sites +ve) or absent pulses or other risk factors (poor footwear, social circumstances, poor diabetes control)	Refer to Podiatry & diabetes foot education
High Risk	Neuropathy (>8 sites +ve) or absent pulses plus foot deformity or skin changes/thickening (erythema, callous/corn previous ulcer or amputation).	Refer to Podiatry & diabetes foot education
Emergency	New Ulceration, Swelling Spreading cellulitis discolouration	Follow Acute diabetic foot pathway