

# TIP-THERM®

**Early diagnosis of distal symmetric polyneuropathy by testing temperature sensitivity; prevention of diabetic foot.**

Failure to perceive variances in temperature in the extremities is the most decisive early symptom of distal symmetric polyneuropathy, a typical ailment accompanying diabetes mellitus (*Ziegler 1988*).

Precious time is gained if examinations are geared towards detecting this symptom. Regular testing of temperature sensitivity should therefore be a compulsory part of basic diabetes treatment.

This is when the fate of a diabetic foot is decided and not in the course of more advanced treatment. The instruments used, the examination procedure and the examiner's motivation must all stand up to the demands posed by everyday surgery conditions.

## **The instrument**

TIP-THERM® is ideal for testing temperature sensitivity. It is not dependent on external power sources, is practically indestructible, easy to handle and small and light enough to fit in any jacket or overall pocket. Most significant, however, is the fact that TIP-THERM® has been validated (*Spraul 1995*). Owing to its physical characteristics this incredibly simple instrument guarantees reproducible test results in an ambient temperature of up to 23 degrees Celsius.

## **Examination procedure**

The examiner places the two flat surfaces on the top of the patient's foot at irregular intervals and asks whether it feels cold or not so cold.

The patient should not be able to watch the procedure. Only if correct answers are given may it be presumed that the patient's temperature perception is functioning satisfactorily. Patients can also use TIP-THERM® themselves in the course of regular pedicure treatment.

## **Examiner's motivation**

We have illustrated that TIP-THERM® effectively facilitates the prevention of a diabetic foot, employing a simple, unprecedented procedure. Patients will be rewarded with fewer skin infections, less pain and ultimately fewer amputations and a higher quality of life.

## Literature

*Viswanathan V, et al.*

Early recognition of diabetic neuropathy: evaluation of a simple outpatient procedure using thermal perception.  
Postgrad Med J 2002;78:541-542.

*Ziegler et al.*

Evaluation of thermal, pain and vibration sensation thresholds in newly diagnosed Type 1 diabetic patients. Journal of Neurology, Neurosurgery and Psychiatry 1988.

*Ziegler et al.*

Assessment of small and large fiber function in long-term Type 1 (insulindependent) diabetic patients with and without painful neuropathy. Pain 1988.

*Bischoff, Pfeiffer*

Der Altersdiabetes - die negierte Krankheit, ihre Weggenossen und die Folgen.  
Münchener medizinische Wochenschrift 134/1992.

*Kleinfeld*

Der diabetische Fuß.  
Münchener medizinische Wochenschrift 133/1991.

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