

# Huidtemperatuur metingen bij de diabetische voet. Een observatie onderzoek naar de veranderingen van huidtemperatuur gedurende de dag

No registrations found.

<b>Ethical review</b>	Not applicable
<b>Status</b>	Pending
<b>Health condition type</b>	-
<b>Study type</b>	-

## Summary

### ID

NL-OMON26082

### Source

NTR

### Brief title

skin temperature changes in the diabetic foot

### Health condition

Diabetic foot ulcer  
Home monitoring  
Skin temperature

Diabetische voet ulcer  
Thuis monitoring  
Huidtemperatuur

## Sponsors and support

**Primary sponsor:** Dr. J.J. van Netten

**Source(s) of monetary or material Support:** Ziekenhuisgroep Twente (ZGT)  
Department of surgery.

Saxion Hogeschool Enschede

Academie gezondheidszorg, opleiding podotherapie.

## **Intervention**

## **Outcome measures**

### **Primary outcome**

To investigate changes during the day of the difference in skin temperature between the six contralateral spots in the feet of people with diabetes

### **Secondary outcome**

Activity, body temperature and environmental temperature

## **Study description**

### **Background summary**

Background of the study:

For the prevention of diabetic foot ulceration, evidence exists to support the use of home-monitoring of foot skin temperature by means of a hand-held infrared skin thermometer. However, the construct validity of skin temperature measurements is unknown. Factors such as time of day, activity, body temperature and environmental temperature may influence skin temperature changes and could lead to false positive or false negative results if applied as home-monitoring instrument. Increased knowledge is important for the optimization of the measurement procedure and for using temperature measurements as a home screening tool by patients with diabetes.

Objective of the study:

This pilot study intends to describe the skin temperature changes of the foot in patients with diabetes during the day. The secondary objectives are to describe the relationship with ambulatory activity, body temperature, and environmental temperature.

Study design:

Prospective observational pilot study.

### Study population:

Twenty patients with Diabetes Mellitus type 1 and 2, classified as Simms' 1 or 2, above 18 years of age. Patients with clinical signs of infection, ulceration, major amputation, fever or critical ischemia are excluded.

### Primary study parameters/outcome of the study:

Skin temperature difference between six spots of the foot of patients with diabetes during four moments the day.

### Secondary study parameters/outcome of the study (if applicable):

Activity, body temperature and environmental temperature

Nature and extent of the burden and risks associated with participation, benefit and group relatedness (if applicable):

After agreeing to participate, participants visit the outpatient clinic once. During this appointment, participants will be provided with the devices and a diary to measure the temperature at home.

The participants monitor the skin temperature of their feet four times a day for the period of one week. After this week, a staff member of the research team will visit the patient at home to evaluate the process and retrieve

### **Study objective**

For the prevention of diabetic foot ulceration, evidence exists to support the use of home-monitoring of foot skin temperature by means of a hand-held infrared skin thermometer. However, the construct validity of skin temperature measurements is unknown. Factors such as time of day, activity, body temperature and environmental temperature may influence skin temperature changes and could lead to false positive or false negative results if applied as home-monitoring instrument. Increased knowledge is important for the optimization of the measurement procedure and for using temperature measurements as a home screening tool by patients with diabetes.

This pilot study intends to describe the skin temperature changes of the foot in patients with diabetes during the day. The secondary objectives are to describe the relationship with ambulatory activity, body temperature, and environmental temperature.

## Study design

Participants will be asked to measure the temperature of both feet, bodytemperature, environmental temperature and activity four times a day for the period of six days; the first time just after the participant wakes up, the second time between 11.00 and 13.00, the third time between 17.00-19.00 and the final time just before the participant goes to sleep. Data are to be recored in a diary.

## Intervention

This pilot study intends to describe the skin temperature changes of the foot in twenty patients with diabetes during the day. The aim of the study is to gain knowledge about skintemperature changes of the feet during the day. Therefore the skintemperature is observed during dailly activities without an intervention.

## Contacts

### Public

Saxion university of applied sciences - School of health, Podiatry department

A.M. Wijlens  
M.H.Tromplaan 28

Enschede 7513 AB  
The Netherlands  
06-12382309

### Scientific

Saxion university of applied sciences - School of health, Podiatry department

A.M. Wijlens  
M.H.Tromplaan 28

Enschede 7513 AB  
The Netherlands  
06-12382309

## Eligibility criteria

### Inclusion criteria

- Type 1 or 2 diabetes

- Simms' classification 1 or 2
- No ulcer on the feet or legs
- No major amputation
- Aged 18 years or older
- Body temperature below 38°C
- No clinical signs of foot Infection.
- Able to use the thermometer and equipment

## Exclusion criteria

Critical ischemia, defined as an ankle brachial index < 0.6 or toe pressure < 30 mmHg

## Study design

### Design

**Intervention model:** Other

**Control:** N/A , unknown

### Recruitment

NL

Recruitment status: Pending

Start date (anticipated): 01-05-2015

Enrollment: 20

Type: Anticipated

## Ethics review

Not applicable

Application type: Not applicable

## Study registrations

### Followed up by the following (possibly more current) registration

No registrations found.

### Other (possibly less up-to-date) registrations in this register

No registrations found.

### In other registers

Register	ID
NTR-new	NL5077
NTR-old	NTR5209
Other	ABR : 53105

## Study results