

# Thermal challenges in modern day humans

No registrations found.

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

## Summary

### ID

NL-OMON28704

### Source

Nationaal Trial Register

### Brief title

TCMDH

### Health condition

no health conditions or problems studied

## Sponsors and support

**Primary sponsor:** Universiteit Maastricht

**Source(s) of monetary or material Support:** TKI-TRECO

## Intervention

## Outcome measures

### Primary outcome

The main study parameter is the fraction of time spent relative to the thermoneutral zone. The distance from the thermoneutral zone is defined by comparing measured skin temperature and operative temperature to the theoretical centroid of the thermoneutral zone.

## Secondary outcome

The secondary research questions relate to the primary objectives and aim to give insight in how the thermal states are related to physical and physiological parameters:

- Physiological
  - o Metabolic rate distinguished by:
    - Basal metabolic rate
    - Activity level
  - o Insulation distinguished by:
    - Body composition
    - Skin blood flow
  - Physical
  - o Thermal environment by:
    - Air temperature
    - Humidity
    - Clothing
    - Subjective
  - o Thermal comfort

## Study description

### Study objective

This study aims to chart which thermal challenges modern day humans are exposed to and compare this to their thermoneutral zone. Therefore we hypothesize that modern day humans (both males and females) are predominantly within their thermoneutral zone

## Study design

1 lab day and 2 field days

## Intervention

During the field study subjects are encouraged to behave as they normally would, therefore no intervention is planned. During the laboratory visit the thermal environment of subjects is altered by changing clothing conditions while subjects perform several activities (sitting - walking) on a treadmill

## Contacts

### Public

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### Scientific

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## Eligibility criteria

### Inclusion criteria

- Age between 18 and 60 years old
- BMI between 20 to 25 kg/m<sup>2</sup>
- Sharing the same office with another participant of different gender.

## Exclusion criteria

- Is a minor or senior (i.e. younger than 18 years or older than 60 years)
- Age difference within couple greater than 10 years
- BMI difference within couple greater than 2 BMI points
- Health issues as observed by general health questionnaire (appendix F1.1)
- Within couple at least 1 participant works more than 1 night-shift per month (appendix F1.2)
- Incapacitated

## Study design

### Design

Study type:	Observational non invasive
Intervention model:	Crossover
Allocation:	Non controlled trial
Masking:	Open (masking not used)
Control:	N/A , unknown

### Recruitment

NL	
Recruitment status:	Pending
Start date (anticipated):	01-12-2015
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	NL5269
NTR-old	NTR5551
Other	NL54274.068.15 : METC153039

## Study results