# The effects of light on thermal physiology, thermal comfort and alertness

No registrations found.

| | |
|---|---|
| **Ethical review** | Positive opinion |
| **Status** | Recruitment stopped |
| **Health condition type** | - |
| **Study type** | Observational non invasive |

## Summary

### ID

NL-OMON25849

**Source**
Nationaal Trial Register

**Brief title**
Ledther

**Health condition**

Healthy subjects

### Sponsors and support

**Primary sponsor:** MUMC+
**Source(s) of monetary or material Support:** This project is funded by the STW -Philips Electronics Nederland B.V. Partnership Program “Advanced Sustainable Lighting Solutions” (no.12733).

### Intervention

### Outcome measures

**Primary outcome**

Themal comfort and thermal sensation

Human energy expenditure

Alertness

Core and Skin temperatures

### Secondary outcome

Skin conductance

Cardiovascular parameters

Blood parameters

## Study description

### Study objective

Lighting conditions, the intensity as well as the colour, influence thermophysiolgical responses and thermal comfort.

### Study design

Subjects are exposed to lighting conditions for 5 hours. The different lighting conditions are provided at different days. Each subject has to participate in two experimental days, and therefore will be exposed to two lighting exposures.

### Intervention

During the experiments the lighting conditions vary in intensity (bright and dim light) and in colour (long wavelength and short wavelengths). Experiments will be done under mild warm, mild cold and thermo neutral temperatures.

## Contacts

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# Eligibility criteria

## Inclusion criteria

• Caucasian volunteers

• Generally healthy

• Age: 18 to 30 years

• BMI: 20-25 kg/m2

• Fat percentage: 20-30%

• Using Microgynon 30 or levonorgestrel/ehinylestradiol

• Normal chronotype

## Exclusion criteria

• Colour blindness

• Ocular pathologies

• Medication use

• Pregnancy

• Hypertension (systolic/diastolic blood pressure >140/90)

• Hypotension (systolic/diastolic blood pressure <90/60)

• General feeling of illness at day of experiment

• (History of) cardiovascular diseases

• Contraindications of the telemetric pill:

o In the presence of any known or suspected obstructive disease of the gastrointestinal tract, including but not limited to diverticulitis and inflammatory bowel disease

o A history of disorders or impairment of the gag reflex

o Previous gastrointestinal surgery

o Hypo motility disorders of the gastrointestinal tract including but not limited to ileus

• Participants that do not want to be informed about accidental medical findings, which might occur during the study. If participants do not agree that they will be informed about unexpected medical findings, they cannot participate in the study.

• Employees of the research group “Thermu” are excluded from participation.

# Study design

## Design

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

## Recruitment

NL

| | |
|---|---|
| Recruitment status: | Recruitment stopped |
| Start date (anticipated): | 01-11-2014 |
| Enrollment: | 48 |
| Type: | Actual |

# Ethics review

Positive opinion

| | |
|---|---|
| Date: | 26-02-2015 |
| Application type: | First submission |

# Study registrations

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

ID: 44432
Bron: ToetsingOnline
Titel:

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

No registrations found.

## In other registers

| Register | ID |
|---|---|
| NTR-new | NL4877 |
| NTR-old | NTR5148 |
| CCMO | NL49108.068.14 |
| OMON | NL-OMON44432 |

# Study results

**Summary results**
not applicable