

Personal Control Systems in Moderately Drifting Temperatures

Gepubliceerd: 23-05-2019 Laatste bijgewerkt: 18-08-2022

With personal control system, people feel more comfortable.

Ethische beoordeling	Positief advies
Status	Werving gestopt
Type aandoening	-
Onderzoekstype	Interventie onderzoek

Samenvatting

ID

NL-OMON26270

Bron

Nationaal Trial Register

Verkorte titel

PCS

Aandoening

Not applicable

Ondersteuning

Primaire sponsor: School for Nutrition and Translational Research Metabolism (NUTRIM)

Overige ondersteuning: TKI

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

The differences in thermal sensation, comfort, acceptance between the two conditions.

Toelichting onderzoek

Achtergrond van het onderzoek

Rationale: In order to fulfil the demand of thermal comfort, current environmental design practice narrows the temperature into a small range. Less strict, dynamic, indoor conditions, however, pave the way to increased energy efficiency in buildings. Moreover, excursions outside the thermal comfort range have been proven beneficial for metabolic health. Under drifting (dynamic) thermal conditions such exposures to mild cold or heat may be perceived as acceptable, but significant individual differences are evident. Acceptance of a drifting indoor temperature can potentially be extended using a personal control system.

Objective: To evaluate the effects of personal control systems on thermal comfort, physiology and cognitive performance in moderately drifting temperatures.

Study design: This experiment has a cross-over design consisting of two conditions which will be conducted in two separate days. The control condition consists of a drifting temperature without a personal temperature control system and the other condition is a drifting temperature with a personal temperature control system. Measurements include thermal perception, visual comfort, alertness, body temperature, energy expenditure, blood perfusion, cardiovascular parameters, control behavior and cognitive performance.

Study population: 18 healthy lean participants (9 male, 9 female) aged between 18 and 40 years, BMI >18 and <27.5 kg/m² will be included.

Main study parameters/endpoints: Difference in thermal sensation, comfort, acceptance between the two conditions.

Doel van het onderzoek

With personal control system, people feel more comfortable.

Onderzoeksopzet

6 time points: 1 information session, 1 screening session, 2 preparation sessions and 2 test sessions

Contactpersonen

Publiek

Maastricht University
Wei Luo

043-3884259

Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

- Caucasian race
- Age 18-40 years
- BMI between 18 and 27.5 kg/m²
- Non-smoking
- Steady dietary habits
- Generally healthy, no medication use that interferes with metabolism. If volunteers need medication (e.g. statin drugs, NSAIDs), it will be reviewed with the dependent physician on an individual basis.
- Female participant who using Microgynon 30 or levonorgestrel/ethinylestradiol
- Normal chronotype

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

- Cardiac problems and cardiovascular diseases, such as angina pectoris, cardiac infarction and arrhythmias
- Any medical condition requiring treatment and/or medication that might interfere with the investigated parameters. All medical conditions/medications will be reviewed with the dependent physician and in-/exclusion will be decided on individual basis
- Presence of Raynaud's phenomenon
- Unstable body weight (weight gain or loss >3 kg in the past month)
- Participation in another biomedical study within 1 month prior to screening visit
- Participants who do not want to be informed about unexpected medical findings, or do not wish that their treating physician will be informed, cannot participate in this study
- Jet lag or night shift work in the past 2 months
- Color blindness
- Participants who undergone an operation on the gastrointestinal system in the past

Onderzoeksopzet

Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Cross-over
Toewijzing:	Gerandomiseerd
Blinding:	Open / niet geblindeerd
Controle:	N.v.t. / onbekend

Deelname

Nederland	
Status:	Werving gestopt
(Verwachte) startdatum:	30-07-2019
Aantal proefpersonen:	18
Type:	Werkelijke startdatum

Voornemen beschikbaar stellen Individuele Patiënten Data (IPD)

Wordt de data na het onderzoek gedeeld: Nog niet bepaald

Ethische beoordeling

Positief advies	
Datum:	23-05-2019
Soort:	Eerste indiening

Registraties

Opgevolgd door onderstaande (mogelijk meer actuele) registratie

Geen registraties gevonden.

Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

In overige registers

Register	ID
NTR-new	NL7757
Ander register	METC Maastricht Universiteit : 76263

Resultaten