Control of heat storage in a cool and warm environment in young and elderly males.

No registrations found.

Ethical review	Not applicable
Status	Recruiting
Health condition type	-
Study type	Observational non invasive

Summary

ID

NL-OMON24182

Source
NTR

Brief title
HEATAGE

Health condition

Age, thermoregulation, skin blood flow, temperature, hysteresis

Sponsors and support

Primary sponsor: Boris Kingma MSc,
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Source(s) of monetary or material Support: Senter Novem

Intervention

Outcome measures

Primary outcome

1. Heat loss (W);

2. Heat content (J/m^3).

Secondary outcome

N/A

Study description

Background summary

In general elderly are predisposed to risk of both hypothermia and hyperthermia, even at mild cold or
heat exposure. Studies aimed at age related changes in mechanisms of thermoregulation to explain the
increased risk of elderly failed to observe differences in heat loss between young and elderly. This might be caused by a lumped approach of calculation of heat loss through mean skin temperature without
incorporation of temperatures of the extremities.

Study objective

Test the hypothesis that a divisional calculation of heat loss, and incorporation of skin temperature of the extremities during mild cold exposure will indicate an age effect on heat loss between young and elderly. An additional purpose is to test whether age effects on hysteresis are observable between cooling and warming subjects.

Study design

N/A

Intervention

Subjects subjected to a mild cold (airtemperature 20C) and mild heat exposure (airtemperature 35C).

Contacts

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Eligibility criteria

Inclusion criteria

1. Caucasian healthy male;

2. Age between 18 to 28 years or age between 68 to 78 years;

3. 20 kg/m2 < BMI < 25 kg/m2;

4. 15% < Fat percentage < 20%;

5. 1.8 m2 < Dubois skin area < 2.0 m2;

6. 80mmHg < Mean arterial pressure < 90mmHg (rest, supine position).

Exclusion criteria

1. Female;

2. History of cardiovascular disease;

3. Carrier of electrically-sensitive implanted devices;

4. Deviant core temperature at day of experiment;

5. General feeling of illness at day of experiment.

Study design

Design

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

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	11-01-2009
Enrollment:	24
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	NL1892
NTR-old	NTR2007
Other	MEC Maastricht University : 09-3-049
ISRCTN	ISRCTN wordt niet meer aangevraagd.

Study results

Summary results
N/A