Functional MRI of food temptations: Effects of temptation exposure on the activation of reward and conflict areas in the brain.

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Our main objective is to compare the effects of weak and strong food temptations on the activation of reward and conflict areas in the brain.

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Other condition
Study type	Observational invasive

Summary

ID

NL-OMON34992

Source
ToetsingOnline

Brief title
An fMRI study of food temptations

Condition

- Other condition

Synonym
eating behavior

Health condition

regulier eetgedrag

Research involving
Human

Sponsors and support

Primary sponsor: Universiteit Utrecht
Source(s) of monetary or material Support: Ministerie van OC&W,NWO Toptalent-subsidie aan F.M. kroese

Intervention

Keyword: fMRI, food temptations, self-regulation

Outcome measures

Primary outcome

Neural activation (percentage signal change) induced by the presentation of

pictures of food temptations.

Secondary outcome

Reaction times on a lexical decision task, scores on dieting success

questionnaire, snack choice.

Study description

Background summary

In terms of self-regulation, people respond differently to weak and strong food temptations. Strong temptations have been found to trigger defensive self-regulation processes, assisting successful resistance of temptation. On the contrary and quite paradoxically, weak temptations do not trigger self-regulation and are therefore more easily indulged. Presumably, the negative consequences of weak temptations with respect to the weight watching goal are underestimated, thereby failing to trigger the *alarm system*. It is yet unclear, however, at what level of cognitive processing a difference appears between weak and strong temptations. Research on the brain regions triggered by exposure to weak and strong food temptations can provide insights into the mechanisms underlying temptation resistance vs. indulgence.

Study objective

Our main objective is to compare the effects of weak and strong food

temptations on the activation of reward and conflict areas in the brain.

Study design

A randomized intervention study with two conditions: weak temptations vs. strong temptations.

Study burden and risks

The study is non-therapeutic to participants, poses a minimal burden, and involves no significant risks. Knowledge about brain activation in response to food temptations is essential for our understanding of indulgence or resistance of temptations. Young females compose a particularly suitable population for this study, as they are known to be concerned about their weight (e.g., Wardle, Haase, & Steptoe, 2006) and often adopting healthy eating as a subgoal to achieve weight loss or maintenance (e.g., Serdula et al., 1999).

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adults (18-64 years)
Elderly (65 years and older)

Inclusion criteria

- female
- age between 18 and 30
- healthy
- normal weights (BMI between 18,5 and 25)

Exclusion criteria

- having an eating disorder
- use of medication
- having followed a strict diet in the past 6 months
- regular MRI exclusion criteria (claustrophobia, being pregnant, having metal implants)

Study design

Design

Study type: Observational invasive

Masking:	Single blinded (masking used)
Control:	Uncontrolled
Primary purpose:	Other

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	07-06-2010
Enrollment:	30
Type:	Actual

Ethics review

Approved WMO Date:	08-02-2010
Application type:	First submission
Review commission:	METC Universitair Medisch Centrum Utrecht (Utrecht)

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
CCMO	NL30407.041.09