The effects of sensory perception of fats on energy intake

Published: 20-08-2007
Last updated: 08-05-2024

The aim of the current experiment is to investigate the impact of sensory perception of the fat content on the ad libitum energy intake of the meal. In addition, we will focus on the effects of sensory perception on appetite ratings and meal...

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

Summary

ID

NL-OMON31354

Source
ToetsingOnline

Brief title
Sentio - study

Condition

- Other condition

Synonym
obesity, overweight

Health condition

overgewicht en obesitas

Research involving
Human

Sponsors and support

Primary sponsor: Wageningen Universiteit
Source(s) of monetary or material Support: Het Voedingscentrum;Den Haag

Intervention

Keyword: appetite ratings, energy intake, meal termination, Sensory perception

Outcome measures

Primary outcome

The primary endpoint is defined as the ad libitum energy intake (kJ) during a

test lunch. The ad libitum energy intake will be compared between the two test

conditions.

Secondary outcome

secondary outcomes are the appetite ratings before, during and after lunch, the

reasons for terminating the meal and the pleasantness of the meals.

Study description

Background summary

People tend to rely more on environmental cues to determine their food intake, than on physiological satiety cues. The effects of the environment on energy intake and the subsequent development of overweight are well established, as are the effects of certain physical properties of foods. The effects of sensory perception of certain food properties on energy intake are not fully elucidated.

We hypothesize that if subjects perceive food products to be high in fat (visible fat condition), their ad libitum energy intake will be less compared to when subjects perceive the food products to be low or normal in fat, as in the hidden fat condition.

Study objective

The aim of the current experiment is to investigate the impact of sensory

perception of the fat content on the ad libitum energy intake of the meal. In addition, we will focus on the effects of sensory perception on appetite ratings and meal termination.

Study design

This experiment will have a randomized cross-over design. Subjects enrolled in this study will consume two test lunches, on 2 separate days, with a minimal wash-out period of 48 h. On each test day, the ad libitum energy intake of the lunch will be measured.

Intervention

Lunches will differ in its sensory properties of the fat content; we will use visible fats in the lunch to create a high sensory perception of the fat content and hidden fats to reduce this sensory perception. We will provide the subjects with three courses during lunch. Products served within one course are comparable in energy density, macronutrient composition and fatty acids between the visible fat lunch and the hidden fat lunch.

Study burden and risks

This intervention is non-therapeutic to the subjects. The burden to the participants can be considered as minimal; subjects have to visit the university on 2 days to consume a lunch, during which four short questionnaires have to be filled out. Food products used are all commercially available, therefore no adverse effects are expected by participation in this experiment.

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

age 18 - 30
BMI 20 - 23
Good Health

Exclusion criteria

*restraint eating (men > 2.90, women > 3.40 on DEBQ)
*weight change of > 1 kg in last 3 months
*following an energy restricted diet
*smoking
*gastro-intestinal disorders
*endocrine disorders
*loss of appetite
*participation in the ESCO-Lunch study

Study design

Design

Study type:	Interventional
Intervention model:	Crossover
Masking:	Open (masking not used)

Control:	Uncontrolled
Primary purpose:	Basic science

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	05-09-2007
Enrollment:	50
Type:	Actual

Ethics review

Approved WMO

Date:	20-08-2007
Application type:	First submission
Review commission:	METC Wageningen Universiteit (Wageningen)

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	NL18166.081.07