

Effect of taste on sensory specific satiety

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The primary objective of this study is to determine the effect of sweet and savoury taste on SSS by investigating liking and wanting separately using several methods. Agreements on the outcomes of the different methodologies used are assessed.

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

Summary

ID

NL-OMON32747

Source

ToetsingOnline

Brief title

LunchTime

Condition

- Other condition

Synonym

fatness, obesity

Health condition

obesitas

Research involving

Human

Sponsors and support

Primary sponsor: Wageningen Universiteit

Source(s) of monetary or material Support: NWO/STW,CSM,Friesland Nutrition,TNO,Unilever

Intervention

Keyword: liking, satiety, taste, wanting

Outcome measures

Primary outcome

Our main outcome measures of the different test-conditions are: The difference in habituation (responses) during the sweet and savoury meal (test-condition 1), the difference in motivation after a sweet or savoury meal to work for a certain food (test-condition 2) and the differences in different aspects of food choice after eating a sweet or savoury meal (test-condition 3). Agreements on the outcomes of the different methodologies used in the three test-conditions are assessed.

Secondary outcome

The secondary parameters are differences in intake (g) between the sweet and savoury meal in all test-conditions.

Study description

Background summary

Sensory properties have been shown to play a role in food selection and intake. A phenomenon which describes the impact of sensory properties on food intake is sensory specific satiety (SSS). This is defined as the decrease in reward of an eaten food in comparison to food that have not been eaten. When examining the role of food reward in eating behaviour, one can differentiate between food *liking* and food *wanting*. In humans, food liking and wanting can be distinctively assessed using different methods. Regarding the nature of sensory signals that affect intake, probably the most important dimension is the sweet-savoury domain.

Study objective

The primary objective of this study is to determine the effect of sweet and savoury taste on SSS by investigating liking and wanting separately using several methods. Agreements on the outcomes of the different methodologies used are assessed.

Study design

A cross-over intervention study consisting of three test-conditions whereby two tastes are compared, resulting in six experimental conditions. Each subject participates in each of the six experimental conditions whereby the order is randomized. Subjects will be offered a rice meal whereby depending on the test-condition different methods of assessing liking and wanting are used.

Intervention

The participant will be offered a ricemeal whereby depending on the test-condition, different methods of assessing liking and wanting are used. Commercially available rice will be used as a test-product, served in either a sweet (reference treatment) or a savoury variant (index treatment).

Study burden and risks

The study is non-therapeutic to the participants. The risk associated with participation is negligible and compared to other studies the burden can be considered low.

Contacts

Public

Wageningen Universiteit

P.O. Box 8129
6700 EV Wageningen
Nederland

Scientific

Wageningen Universiteit

P.O. Box 8129
6700 EV Wageningen
Nederland

Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age

Adults (18-64 years)

Elderly (65 years and older)

Inclusion criteria

Section 4.2. from research proposal

- Age: 18-35 year
- BMI: 18.5 - 25.0 kg/m²
- Healthy (as judged by the participant)
- Liking for test products (assessed in screening-questionnaire with a 9-point hedonic scale, subjects have to like or have a neutral attitude towards the products: score ≥ 5).

Exclusion criteria

Section 4.3. from research proposal

- Restrained eating (men: score > 2.25 ; women: score > 2.80)
- Lack of appetite for any (unknown) reason
- Usage of a energy restricted diet during the last two months
- Weight loss or weight gain of 5 kg or more during the last two months
- Stomach or bowel diseases
- Diabetes, thyroid disease, or any other endocrine disorder
- Having difficulties with swallowing/eating
- Hypersensitivity (allergy and/or intolerance) for the food products under study
- Smoking (at least one cigarette a day)
- For women: pregnant or lactating
- Being a vegetarian
- Having participated in *RiceTime* (ref 08/05) or current participation in other research from the division of human nutrition (WUR)

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):	18-03-2009
Enrollment:	60
Type:	Actual

Ethics review

Approved WMO	
Date:	06-01-2009
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

CCMO

ID

NL25900.081.08