The role of sensory signals on satiety and food preferences.

No registrations found.

Ethical review	Positive opinion
Status	Recruiting
Health condition type	-
Study type	Interventional

Summary

ID

NL-OMON22093

Source
Nationaal Trial Register

Brief title
ShowTime

Health condition

Eating Behaviour

Sponsors and support

Primary sponsor: Wageningen University, Department of Human Nutrition
Source(s) of monetary or material Support: Technologiestichting STW (Stichting Technische Wetenschappen)

Intervention

Outcome measures

Primary outcome

Our main outcome measurement is the difference in energy intake (kJ) during an ad libitum test meal after 24h of a sweet diet, a savoury diet, and a control diet.

Secondary outcome

1. To assess the effect of a sweet diet, a savoury diet, and a control diet on subjective ratings of appetite using a VAS;

2. To assess the effect of a 24h sweet diet, a savoury diet, and a control diet on different aspects of food reward (explicit liking, explicit wanting, implicit wanting, relative food choice) of 4 different food categories (low-protein sweet, low-protein savoury, high-protein sweet, and high-protein savoury) using the computerized Leeds Food Preference Questionnaire (LFPQ);

3. To assess the effect of a 24h sweet diet, a savoury diet, and a control diet on cognitive associations of towards 4 different food categories (low-protein sweet, low-protein savoury, high-protein sweet, and high-protein savoury) using a Sorting Paired Features (SPF) task.

Study description

Background summary

Rationale:

Sensory properties of food play an important role in food selection and intake. Within our food range, products containing high protein levels are in general more savoury, while products containing carbohydrates are generally more sweet. Protein has been found to be the more satiating macronutrient. The role of sensory signals in the satiating effects of protein, however, requires further clarification.

Objective:

To determine the effect of sensory signals on satiety and food preferences.

Study design:

The study will consists of three test days, which will be separated by 1 week. These test days involve consumption of pre-determined iso-caloric diets consisting of only sweet products (sweet diet), only savoury products (savoury diet) or a combination of sweet and savoury products (control diet), using a randomized crossover design. Afterward energy intake (kJ) of an ad libitum test meal is measured. In addition, during the test days, sensations of appetite and several measures of food preferences will be assessed.

Study population:

The study population will consist of 40 apparently healthy, unrestrained, non-smoking, volunteers between the age of 18 and 35 with a normal body weight.

Main study parameters/endpoints:

Our main outcome measurement is the difference in energy intake (kJ) during an ad libitum test meal after 24h of a sweet diet, a savoury diet, and a control diet.

Nature and extent of the burden and risks associated with participation, benefit and group relatedness:

The study is non-therapeutic to the participants. The risk associated with participation is negligible and the burden can be considered as low. No invasive measurements are present.

Study objective

Our hypothesis is that the satiating capacity of protein is partly regulated via the savoury signal of foods. We therefore expect that the savoury diet is more satiating than the sweet diet and the control diet, resulting in a decreased intake after the savoury diet. In addition we expect that eating a savoury diet will shift food preferences to low-protein foods. We expect that the sweet diet will be less satiating than the control diet, and that this diet will shift food preferences to high-protein foods.

Study design

Every participant will visit the laboratory every day during the test (in total 6 times).

Intervention

The study will consists of three test days, which will be separated by 1 week. These test days involve consumption of pre-determined iso-caloric diets consisting of only sweet products (sweet diet), only savoury products (savoury diet) or a combination of sweet and savoury products (control diet), using a randomized crossover design. Afterward energy intake (kJ) of an ad libitum test meal is measured. In addition, during the test days, sensations of appetite and several measures of food preferences will be assessed.

Contacts

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Eligibility criteria

Inclusion criteria

1. Age: 18-35 years;

2. BMI: 18.5 – 25.0 kg/m2;

3. Healthy (as judged by the participant).

Exclusion criteria

1. Restraint eating (men: score > 2.25; women: score > 2.80);

2. Lack of appetite;

3. Having difficulties with swallowing/eating;

4. Usage of an energy restricted diet during the last two months;

5. Weight loss or weight gain of 5 kg or more during the last two months;

6. Stomach or bowel diseases;

7. Kidney disorders;

8. Diabetes, thyroid disease, other endocrine disorders;

9. Usage of daily medication other than birth control pills;

10. For women: Pregnant or lactating;

11. Smoking (at least one cigarette a day);

12. Being a vegetarian;

13. Being allergic/intolerant for products under study;

14. Having participated in studies that have used the LFPQ: ‘RiceTime’, ‘LunchTime’, ‘ProStudy’, and ‘ProTime’, or current participation in other research from the division of human nutrition (WUR).

Study design

Design

Study type:	Interventional
Intervention model:	Crossover
Allocation:	Randomized controlled trial
Masking:	Open (masking not used)
Control:	N/A , unknown

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	10-05-2011
Enrollment:	40
Type:	Anticipated

Ethics review

Positive opinion

Date:	28-04-2011
Application type:	First submission

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	NL2737
NTR-old	NTR2875
Other	MEC Wageningen / ABR : 11/10 / NL36114.081.11;
ISRCTN	ISRCTN wordt niet meer aangevraagd.

Study results

Summary results
N/A