The effect of protein content and taste on satiety.

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Ethische beoordeling	Positief advies
Status	Werving gestopt
Type aandoening	-
Onderzoekstype	Interventie onderzoek

Samenvatting

ID

NL-OMON25694

Bron
Nationaal Trial Register

Verkorte titel
ProStudy

Aandoening

Eating behaviour

Ondersteuning

Primaire sponsor: Wageningen University, Division of Human Nutrition
Overige ondersteuning: Technologiestichting STW (Stichting Technische Wetenschappen)

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

The primary objective of this study to determine the effect of protein content (low vs. high) and taste (sweet vs. savory) of a meal on satiety, measured by subsequent intake of 4

different food categories (low-protein sweet, low-protein savory, high-protein sweet, and high-protein savory) at an ad libitum lunch buffet.

Therefore our main outcome is:
The difference in intake (g) of 4 different food categories (low-protein sweet, low-protein savory, high-protein sweet, and high-protein savory) at an ad libitum lunch buffet between the 4 different treatments.

Toelichting onderzoek

Achtergrond van het onderzoek

Rationale:

It has been posed that protein intake is tightly regulated in the human body. A high-protein meal produces a significantly greater reduction in liking for high-protein foods than for high-carbohydrate foods. And as products with a savory taste are in general higher in protein levels while food products with a sweet taste are more related with carbohydrates, a link between taste and macronutrient in control of intake seems to exist. This link, however, is far from clear.

Objective:

To determine the effect of protein content (low vs. high) and taste (sweet vs. savory) of a meal on satiety, measured by subsequent intake of 4 different food categories (low-protein sweet, low-protein savory, high-protein sweet, and high-protein savory).

Study design:

The study is a cross-over intervention study and has a 2x2 factorial design, the 2 factors being protein content (low and high) and taste (sweet and savory) of a meal, resulting in 4 different treatments.

Each subject participates in all 4 treatments whereby the order is randomized according to a Latin square. Subjects will be offered a (rice) meal (fixed preload), varying in protein content and taste. After finishing, subsequent intake of 4 different food categories (low-protein sweet, low-protein savory, high-protein sweet, and high-protein savory) at an ad libitum lunch buffet is measured.

Study population:

The study population will consist of 60 apparently healthy, non-smoking, unrestrained volunteers between the age of 18 and 35 with a normal weight.

Main study parameters/endpoints:

Our main outcome measure is the difference in intake (g) of the 4 food categories at an ad libitum lunch buffet between the 4 different treatments.

Doel van het onderzoek

The protein content of a product has an influence on satiety, e.g. the higher the protein content, the lower the subsequent intake.

In addition, a sensory specific satiety effect is expected, meaning that after eating a preload with a certain taste, the intake of products with a congruent taste is less than of products with an incongruent taste.

Onderzoeksopzet

Per individual 4 measuring time-points, between 18/01/2010 and 12/02/2010.

Onderzoeksproduct en/of interventie

Lunchmeal, varying in protein content (high vs. low) and taste (sweet vs. savory).

Contactpersonen

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Wetenschappelijk

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

1. Age: 18-35 year;

2. BMI: 18.5 ¨C 25.0 kg/m2;

3. Healthy (as judged by the participant);

4. 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 ¡Ý 5).

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

1. Restraint eating (men: score > 2.25; women: score > 2.80) [13];

2. Lack of appetite for any (unknown) reason;

3. Usage of a energy restricted diet during the last two months;

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

5. Stomach or bowel diseases;

6. Diabetes, thyroid disease, or any other endocrine disorder;

7. Having difficulties with swallowing/eating;

8. Hypersensitivity (allergy and/or intolerance) for the food products under study;

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

10. For women: pregnant or lactating;

11. Being a vegetarian;

12. Having participated in '®RiceTime¡', '®LunchTime¡' or '®Smaak-Geur¡; or current participation in other research from the division of human nutrition (WUR).

Onderzoeksopzet

Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Cross-over
Toewijzing:	Gerandomiseerd
Blindering:	Open / niet geblindeerd
Controle:	N.v.t. / onbekend

Deelname

Nederland

Status:	Werving gestopt
(Verwachte) startdatum:	18-01-2010
Aantal proefpersonen:	60
Type:	Werkelijke startdatum

Ethische beoordeling

Positief advies

Datum:	13-01-2010
Soort:	Eerste indiening

Registraties

Opgevolgd door onderstaande (mogelijk meer actuele) registratie

Geen registraties gevonden.

Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

In overige registers

Register	ID
NTR-new	NL2045
NTR-old	NTR2162
Ander register	MEC Wageningen / ABR : 09/22 / 29991.081.09
ISRCTN	ISRCTN wordt niet meer aangevraagd.

Resultaten

Samenvatting resultaten
N/A