# The role of sensory signals on satiety and food preferences.

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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...

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

# Samenvatting

#### ID

NL-OMON22093

**Bron** Nationaal Trial Register

Verkorte titel ShowTime

#### Aandoening

**Eating Behaviour** 

### Ondersteuning

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

#### **Onderzoeksproduct en/of interventie**

#### Uitkomstmaten

#### Primaire uitkomstmaten

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.

# **Toelichting onderzoek**

#### Achtergrond van het onderzoek

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.

#### Doel van het onderzoek

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.

#### Onderzoeksopzet

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

#### **Onderzoeksproduct en/of interventie**

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## Contactpersonen

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## Wetenschappelijk

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# **Deelname eisen**

## Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

- 1. Age: 18-35 years;
- 2. BMI: 18.5 25.0 kg/m2;
- 3. Healthy (as judged by the participant).

## Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

- 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).

# Onderzoeksopzet

## Opzet

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

Status:	Werving gestart
(Verwachte) startdatum:	10-05-2011
Aantal proefpersonen:	40
Туре:	Verwachte startdatum

# **Ethische beoordeling**

Positief advies	
Datum:	
Soort:	

28-04-2011 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	NL2737
NTR-old	NTR2875
Ander register	MEC Wageningen / ABR : 11/10 / NL36114.081.11;
ISRCTN	ISRCTN wordt niet meer aangevraagd.

# Resultaten

# Samenvatting resultaten

N/A