# Effect of exposure time in the mouth on the amount eaten.

No registrations found.

**Ethical review** Positive opinion

**Status** Pending

Health condition type -

**Study type** Interventional

### **Summary**

#### ID

NL-OMON23284

**Source** 

NTR

**Brief title** 

exposure

**Health condition** 

Obesity, satiation, ad libitum intake, salt

### **Sponsors and support**

**Primary sponsor:** Wageningen University

Source(s) of monetary or material Support: NWO-STW

FrieslandCampina, Danone, Unilever, CSM, TIFN

#### Intervention

### **Outcome measures**

#### **Primary outcome**

Ad libitum intake.

#### **Secondary outcome**

Ratings of hunger, fullness, prospective consumption, pleasantness, desire-to-eat.

### **Study description**

### **Background summary**

The duration of food in the mouth, the orosensory exposure time, was shown to have an influence on satiation. This was illustrated mostly by using sweet products and not by savoury or salty products. Tasting sweetness causes a cephalic phase response (i.e. the metabolic and endocrine responses directly after the first contact with the food) that is different from salty tastes. In addition, tasting sweetness is considered to be a strong predictor of energy. These influences may have increased the effect of orosensory exposure time on satiation. It is questionable whether orosensory exposure time by itself produces a faster satiation or that it only plays a role with an energy-associating tastant. The objective is to determine the effect of orosensory exposure time, in combination with salt intensity, on satiation in a low energetic tomato soup.

### Study objective

A long oral exposure time results in less ad libitum intake.

#### Study design

Subjects will consumed ad libitum six times during six week. Once a week during lunch time.

#### Intervention

Oral exposure time will be manipulated by small vs. large bite sizes. Subjects receive tomato soup low and high in salt, from which they consumed once in a short oral exposure time condition and once in a long oral exposure time condition. In addition there will be 2 conditions (low and high in salt) in which the subject is able to determine bite size by him/herself.

### **Contacts**

#### **Public**

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## **Eligibility criteria**

#### Inclusion criteria

- 1. Male;
- 2. Age between 18 to 35 years;
- 3. BMI between 18.5 and 25 kg/m2;
- 4. Healthy (as judged by the participant).

### **Exclusion criteria**

- Smoking (>1 cigarette a day);
- 2. Current participation in other research from the division of human nutrition (WUR);
- 3. Participation in the past of "Tomaat & Soep" study or "Tomato-Lunch" study;
- 4. Pleasantness score of tomato soup < 5, on a 9 point hedonic scale;
- 5. Thyroid disease;
- 6. Lack of appetite for any (unknown) reason;
- 7. Swallowing/eating problems;
- 8. Energy restricted diet within the last two months;
- 9. Weight gain or loss of 5 kg or more during the last year;
- 10. Stomach or bowel disease;
- 11. Diabetes:
- 12. Endocrine disorders (other than diabetes and thyroid disease);
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- 13. Kidney disease;
- 14. Hypertensity;
- 15. The use of salt-restricted food;
- 16. Hypersensitivity or allergy to some of the ingredients of the test product;
- 17. Restraint eating.

# Study design

### **Design**

Study type: Interventional

Intervention model: Crossover

Allocation: Non controlled trial

Masking: Single blinded (masking used)

Control: N/A, unknown

#### Recruitment

NL

Recruitment status: Pending

Start date (anticipated): 19-04-2010

Enrollment: 60

Type: Anticipated

### **Ethics review**

Positive opinion

Date: 01-02-2010

Application type: First submission

### **Study registrations**

### Followed up by the following (possibly more current) registration

ID: 35037

Bron: ToetsingOnline

Titel:

### Other (possibly less up-to-date) registrations in this register

No registrations found.

### In other registers

Register ID

NTR-new NL2074 NTR-old NTR2191

CCMO NL31123.081.09

ISRCTN wordt niet meer aangevraagd.

OMON NL-OMON35037

# **Study results**

### **Summary results**

N/A