

Effect of orosensory exposure time on ad libitum intake of tomato soup

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The objective of this study to determine the effect of orosensory exposure time in combination with salt intensity on ad libitum intake(satiation) of tomato soup.

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

Summary

ID

NL-OMON35037

Source

ToetsingOnline

Brief title

Exposure

Condition

- Other condition

Synonym

overweight

Health condition

obesitas

Research involving

Human

Sponsors and support

Primary sponsor: Wageningen Universiteit

Source(s) of monetary or material Support: NWO/STW,Campina,CSM,Danone

Intervention

Keyword: ad libitum intake, exposure time, Orosensory, salt intensity

Outcome measures

Primary outcome

The difference in ad libitum intake of tomato soup of the short orosensory exposure time compared to long orosensory exposure time of a low-and high-salt tomato soup.

Secondary outcome

- 1) Sip size and eating rate in self-regulated conditions (condition 3).
- 2) Appetite ratings (i.e pleasantness, desire-to-eat, hunger, fullness, prospective consumption and thirst) before, during and after consumption
- 3) Individual salt-tolerance, salt-sensitivity and PROP-taster status

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 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 differs 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 low energetic tomato soups with two different salt intensities.

Study objective

The objective of this study to determine the effect of orosensory exposure time in combination with salt intensity on ad libitum intake(satiation) of tomato soup.

Study design

A 3 x 2 cross-over intervention study consisting of two soups (a low- and high salt soup) and three conditions. The first condition is a long exposure time condition (small sips, frequently), condition two is a short exposure time condition (large sips, less frequently) and condition three is a free eating rate and sip size condition (subjects can regulate this by themselves). Condition one and two are designed in a way that eating rate is the same (g/min).

Intervention

Ad libitum intake of the long orosensory exposure time (index treatment) will be compared with the ad libitum intake of the short orosensory exposure time (reference treatment).

Study burden and risks

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

Contacts

Public

Wageningen Universiteit

Bomenweg 2
6703 HD Wageningen
Nederland

Scientific

Wageningen Universiteit

Bomenweg 2
6703 HD Wageningen
Nederland

Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age

Adults (18-64 years)

Elderly (65 years and older)

Inclusion criteria

male

non-smoking

age: 18-35 year

healthy (as judged by the participant)

BMI between 18.5 - 25 kg/m².

Exclusion criteria

a score of <5 at a 9-point pleasantness scale for tomato soup

thyroid diseases

kidney diseases

following diets during last two month

restraint eating behaviour

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): 19-04-2010
Enrollment: 60
Type: Actual

Ethics review

Approved WMO
Date: 12-04-2010
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

ID: 23284
Source: NTR
Title:

In other registers

Register	ID
CCMO	NL31123.081.09
OMON	NL-OMON23284