Palatability and satiating effects of oral nutrition supplements as perceived by independently living older adults

Published: 10-09-2019
Last updated: 10-04-2024

To evaluate palatability (primary objective) and perceived satiating effects (secondary objective) of ONS prototypes containing both WPC and MPC and to compare these with palatability and perceived satiating effects of commercially available ONS...

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

Summary

ID

NL-OMON48503

Source
ToetsingOnline

Brief title
Palatability and perceived satiety of oral nutrition supplements

Condition

- Other condition

Synonym
not applicable

Health condition

geen

Research involving
Human

Sponsors and support

Primary sponsor: Fonterra
Source(s) of monetary or material Support: bedrijf Fonterra

Intervention

Keyword: consumer research, liking, oral nutritional supplements, satiety

Outcome measures

Primary outcome

Palatability (liking) of the ONS products will be evaluated with an 11-point categorical scale ranging from not like at all, to like very much. Each product will be evaluated for overall liking, liking of taste, liking of sweetness, liking of creamy flavour, liking of texture, and liking of aftertaste. In addition, 5-point just-about-right scales (JAR) are used to evaluate the appropriateness of the thickness and the intensity of the taste, sweetness, creamy flavour, and aftertaste. Palatability questions will be completed after consumption of one sip and after a full portion.

Secondary outcome

Secondary parameters include perceived satiety (prior to consumption, directly after consumption of a full portion and at 1 and 2 hours post consumption) and drivers of liking (i.e. sensory aspects, emotions and functional attributes associated with the product).

Study description

Background summary

ONS products ae prescribed in case of malnutrition that cannot be treated by

with regular foods. In general, intake of ONS is lower than prescribed amounts. The main sensory related reasons for a low intake of oral nutritional supplements (ONS) products have been reported as, disliking the flavour and unpleasant satiating properties. In collaboration with commercial partners Fonterra developed two prototypes of ONS based on a combination of milk protein concentrate (MPC) and whey protein concentrate (WPC). Due to the characteristics of the WPC, the prototype products are easily digested and have a low viscosity which facilitates consumption and are expected to be less satiating as compared to commercially available products that contain MPC only. Furthermore the flavour is optimized to increase palatability of the product. If both issues are true, compliance with ONS may be improved.

Study objective

To evaluate palatability (primary objective) and perceived satiating effects (secondary objective) of ONS prototypes containing both WPC and MPC and to compare these with palatability and perceived satiating effects of commercially available ONS products containing MPC only. In addition, we aim to investigate drivers of liking, i.e. sensory aspects, emotions and functional attributes, of ONS products.

Study design

The study is a single-blind intervention with a within-subjects design. Participants will visit the research facilities 8 times to evaluate different ONS products. On each test day a single prodct is evaluated using questionnaires. There are 2 test days per week with at least one day in between test days.

Intervention

In this intervention study we will evaluate a full portion of 8 different vanilla flavoured ONS products (one product per test day, with at least 1 day in between test days).
Products include two ONS prototypes containing 50% WPC, 50% MPC (Fonterra) and six commercially available ONS products containing MPC only. Calorie content of the served portion will be comparable (300-320 kcal), but protein density (12-20g protein per portion) will differ between products. The products will be given in randomised order.

Study burden and risks

There are minor risks for the participants of this study. There are no direct benefits for the participants. Study participants in our study are not the target group of ONS products, however as undernourished older adults are a vulnerable population it was decided to first evaluate the products in a

healthy adult population. Data will be collected through questionnaires and no other invasive measurements are included. Study participants will invest approximately 20 hours during the intervention and need to visit the research facility on 8 occasions (2 times a week during 4 weeks). The 2 ONS prototype products are safe for consumption and the 6 other ONS products are commercially available.

Contacts

Public
Fonterra

Eurocentre 2, Barbara Strozzilaan 356 - 360
Amsterdam 1083 HN
NL
Scientific
Fonterra

Eurocentre 2, Barbara Strozzilaan 356 - 360
Amsterdam 1083 HN
NL

Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adults (18-64 years)
Elderly (65 years and older)

Inclusion criteria

* Age >65 years or over
* Apparently healthy
* Living independently

Exclusion criteria

* Allergies to soy, dairy or gluten
* Following a specific diet
* BMI>30
* Reduced kidney function
* Suffering from Alzheimer*s disease, Dementia, Parkinson*s Disease, Cancer, Kidney Disease or Diabetes
* Suffering from Dysphagia
* Already using oral nutritional supplements
* Receiving any medical treatment that is known to reduce the taste or sense of smell
* Current smokers
* Participation in another clinical trial at the same time

Study design

Design

Study type:	Interventional
Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Single blinded (masking used)
Control:	Active
Primary purpose:	Other

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	02-10-2019
Enrollment:	104
Type:	Actual

Ethics review

Approved WMO

Date:	10-09-2019
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

No registrations found.

In other registers

Register	ID
CCMO	NL70308.081.19
Other	nog niet ontvangen