

# Repeated exposure to vegetables at day care centres to increase children\*s vegetable acceptance

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To investigate the effect of repeated exposure to different (novel) vegetable tastes in day care settings on children\*s vegetable acceptance

<b>Ethical review</b>	Approved WMO
<b>Status</b>	Recruitment stopped
<b>Health condition type</b>	Other condition
<b>Study type</b>	Interventional

## Summary

### ID

NL-OMON42010

### Source

ToetsingOnline

### Brief title

Veggie Time

### Condition

- Other condition

### Synonym

NVT

### Health condition

Geen specifieke aandoening, het gaat om het stimuleren van de groenteacceptatie van kinderen en daarmee het aanleren en bevorderen van gezond eetgedrag bij jonge kinderen.

### Research involving

Human

## Sponsors and support

**Primary sponsor:** Stichting Dienst Landbouwkundig onderzoek -- WUR Food & Biobased Research

**Source(s) of monetary or material Support:** Topsector project Tuinbouw & Uitgangsmaterialen (KV 1309 019): PPS Meer groente en fruit voor iedereen.

## Intervention

**Keyword:** day care setting, repeated exposure, vegetables, young children

## Outcome measures

### Primary outcome

The main study parameter is children\*s vegetable acceptance. This will be assessed via two measures. First, children\*s change in ad libitum intake of each vegetable taste between pre-test (baseline) and post-test will be compared between the intervention and control group. Secondly, the number of children that actually tasted each vegetable will be recorded at pre- and post-test and these frequencies will be compared between the two conditions.

### Secondary outcome

Per individual child, adherence/ implementation measures will be done during the 5-month exposure period. For each child, during each exposure session, it will be recorded by the day care employees:

- Whether the child was present yes/ no
- Whether the child tasted the vegetables yes/ no
- When the child tasted, how much the child consumed: minimal, medium, high (3 categories).

# Study description

## Background summary

Children's vegetable consumption is below the recommendations in many countries. Dutch children aged 2-3 years eat approximately 40 gram of vegetable per day, whereas 50-100 gram is recommended for this age group. Identifying strategies to increase children's vegetable consumption is an important goal for chronic disease prevention. Because eating habits are developed early in life and tend to track into adulthood, it is important to start in young children with the development of healthy eating habits.

## Study objective

To investigate the effect of repeated exposure to different (novel) vegetable tastes in day care settings on children's vegetable acceptance

## Study design

A pre and post-test design will be used with two parallel groups. Both the experimental (N=100) and control group (N=100) will participate in a pre- and post-measurement, in which ad libitum intake of the four target vegetables is assessed (for each vegetable, at least two measurements per child). After the pre-measurement, the experimental group will participate in a 5-month period during which they are repeatedly exposed to four (novel) vegetable tastes (each taste 13 times). One vegetable is offered each day during a specific vegetable eating moment (social & educational moment) where the day care employees also taste the vegetable. During the vegetable eating moments, the children are allowed to eat as much or as little as they want. The control group will keep their regular routine.

## Intervention

An intervention of 5 months in which children are repeatedly exposed (13x) to four different vegetable tastes, of which 3 are novel/ unfamiliar and 1 is relatively familiar (See also study design).

## Study burden and risks

This study is group-related: participation of the children in the day care setting is essential, because they are the subjects of interest: can we encourage children's vegetable acceptance via the day care setting? Research results from adult studies cannot be extrapolated to children, therefore, the day care centre children need to be included to make proper conclusions about effects in this age group and in this setting. Without participation of the

children, the study is useless for the final aim of promoting vegetable intake in young children.

The risk for participation is nil, since the products are made with commercially available fresh products, consisting of ingredients that are widely available in super markets and are not harmful for children. The products are made with utmost care according to all safety and hygienic regulations.

The burden can be considered as low. The children receive the vegetables within their daily eating routine at the day care. The eating moment will be made as pleasant as possible for the children by making this moment educational, social and fun. They will never be forced to eat the vegetable.

The study is non-therapeutic, but the children can benefit from it. First of all, children are exposed to new vegetables in an attractive way together with their peers in a familiar and safe environment. Because children are often very curious, they may appreciate this taste journey. Moreover, when the children experience the different vegetable tastes, this may help them to broaden their liked vegetable repertoire, and they may eat a larger variety of vegetables with more pleasure (and less resistance), making vegetable eating more enjoyable for themselves and their parents (less vegetable stress). In the end, we expect that this helps them to increase their vegetable consumption and to encourage vegetable variety in their diet for the rest of their life, which may be beneficial for their health, a great benefit.

We expect that - due to the intervention - parents may become more aware of their child\*s vegetable eating behaviour and successes (tastings) at the day care centre may stimulate the parent to offer the family other vegetable varieties, and in this way broaden the vegetable repertoire of the whole family. It may also inspire the parents to use other serving methods for the vegetables.

## Contacts

### **Public**

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## Trial sites

### Listed location countries

Netherlands

## Eligibility criteria

### Age

Children (2-11 years)

### Inclusion criteria

- Children aged between 1 years and 4 years
- Apparently healthy children
- Attending day care at least twice per week
- Signed informed consent of parents

### Exclusion criteria

- No signed informed consent
- Children who are solely milk fed
- Children with allergies towards the used products in the study or a strict diet

## Study design

### Design

Study type:	Interventional
Intervention model:	Other
Allocation:	Non-randomized controlled trial
Masking:	Open (masking not used)

**Primary purpose:** Other

### Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	25-08-2015
Enrollment:	200
Type:	Actual

## Ethics review

Approved WMO	
Date:	25-06-2015
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	NL52104.081.15