

# **Het effect van voedingsproducten met verschillende combinaties van groenten en fruit op de gezondheid van de mens**

## **The effect of food products containing different combinations of vegetables and fruits on human health**

Gepubliceerd: 18-10-2018 Laatst bijgewerkt: 19-03-2025

The main objective of the human dietary intervention study is to investigate the beneficial health effects of food products containing various combinations of an equivalent of 400 grams vegetables and fruits in healthy volunteers. This will be...

<b>Ethische beoordeling</b>	Niet van toepassing
<b>Status</b>	Anders
<b>Type aandoening</b>	-
<b>Onderzoekstype</b>	Interventie onderzoek

### **Samenvatting**

#### **ID**

NL-OMON23386

#### **Bron**

Nationaal Trial Register

#### **Verkorte titel**

CombiChem

#### **Aandoening**

Combination chemoprevention, chronic diseases, cancer, diabetes, cardiovascular disease,molecular mechanisms, synergisms,

Combinatie chemopreventie, chronische ziekten, kanker, diabetes, hartvaat ziekten, moleculaire mechanismen, synergie

## Ondersteuning

**Primaire sponsor:** Maastricht University

**Overige ondersteuning:** Company Mifood

## Onderzoeksproduct en/of interventie

### Uitkomstmaten

#### Primaire uitkomstmaten

- The level of oxidative DNA damage in ex-vivo treated lymphocytes<br>
- Oxidative stress parameters<br>
- Cardiovascular risk parameter: changes in microcirculation<br>
- Whole genome gene expression analyses<br>
- Evaluation of the prevalence of different polymorphisms

## Toelichting onderzoek

### Doel van het onderzoek

The main objective of the human dietary intervention study is to investigate the beneficial health effects of food products containing various combinations of an equivalent of 400 grams vegetables and fruits in healthy volunteers. This will be evaluated in different subgroups with specific genetic characteristics on the level of different phenotypical markers, combined with gene expression profiling.

### Onderzoeksopzet

3 timepoints:

- baseline
- post-intervention 1
- post-intervention 2

## Onderzoeksproduct en/of interventie

A dietary intervention study will be performed to establish the beneficial health effects of 9 different food products, produced by MiFood (a company involved in food production industry ([www.mifood.nl](http://www.mifood.nl))), containing various combinations of phytochemicals from different combinations of vegetables and fruits. Seven of these 9 different food products will consist of

a smoothie, containing different combinations of vegetables and fruits. Smoothies 1-4 will contain a specific selection of vegetables and fruit resulting in an overrepresentation of a specific class of phytochemicals. Smoothies 5-7 will consist of a combination of the four different classes overrepresented in smoothies 1-4, with increasing botanical diversity. Per day, each subject will consume 4 bottles of smoothies spread over the day, containing an equivalent of in total 400 grams vegetables and fruits. The remaining two dietary interventions will test a crouton (also called pearl), consisting of a core of oats and rice flour, either coated or non-coated with the most diverse mixture of vegetables and fruits as used in dietary intervention number 7.

## Contactpersonen

### Publiek

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### Wetenschappelijk

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## Deelname eisen

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

In order to be eligible to participate in this study, a subject must meet all of the following criteria:

- Healthy men or women with a Body Mass Index (BMI) between 18.5 and 27;
- Between 18-60 years old.

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

A potential subject who meets any of the following criteria will be excluded from participation in this study:

- Alcohol abuse up to 6 months before participation in this research, i.e. more than 4 drinks on any single day and more than 14 drinks per week for men and more than 3 drinks on any single day and more than 7 drinks per week for women;
- Current presence of any diseases related to the gastrointestinal tract, kidney, liver, heart or lungs;
- Current presence of type I or type II diabetes;
- Current presence of symptoms related to diseases of the gastrointestinal tract, i.e. vomiting, diarrhea or constipation, and altered stool, such as blood in stool;
- Current presence of diseases related to the endocrine or metabolic system;
- Current presence of anemia;
- HIV infection or hepatitis;
- Use of antibiotics and other medication (except contraceptives) over the last 3 months;
- Use of dietary supplements during the 3 months before start of the study;
- Known allergies for fruits and/or vegetables
- Current smokers and ex-smokers who stopped during the 3 months before start of the study;
- Vegetarians and vegans;
- Pregnant women;
- Sportsmen and sportswomen who are physically active for more than 8 hours per week
- Participants of other intervention studies during this intervention period.

# Onderzoeksopzet

## Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Cross-over
Toewijzing:	Gerandomiseerd
Blinding:	Dubbelblind
Controle:	N.v.t. / onbekend

## Deelname

Nederland	
Status:	Anders
(Verwachte) startdatum:	01-01-2019
Aantal proefpersonen:	200
Type:	Onbekend

## Ethische beoordeling

Niet van toepassing	
Soort:	Niet van toepassing

## Registraties

### Opgevolgd door onderstaande (mogelijk meer actuele) registratie

ID: 45998  
Bron: ToetsingOnline  
Titel:

### Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

## In overige registers

Register	ID
NTR-new	NL7358
NTR-old	NTR7566
CCMO	NL66118.068.18
OMON	NL-OMON45998

## Resultaten

### Samenvatting resultaten

None