

# Effects of combining a plant stanol enriched yogurt drink and a low dose statin on markers for inflammation and endothelial function and serum lipoprotein concentrations

<b>Submission date</b> 19/12/2005	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered
		<input type="checkbox"/> Protocol
<b>Registration date</b> 19/12/2005	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan
		<input type="checkbox"/> Results
<b>Last Edited</b> 01/09/2009	<b>Condition category</b> Other	<input type="checkbox"/> Individual participant data
		<input type="checkbox"/> Record updated in last year

## Plain English summary of protocol

Not provided at time of registration

## Contact information

### Type(s)

Scientific

### Contact name

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### Contact details

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## Additional identifiers

### Protocol serial number

NTR389

# Study information

## Scientific Title

### Study objectives

Major null hypothesis, H0:

As compared with a plant stanol ester free diet, a stanol ester enriched diet does not change serum concentrations lipids and lipoproteins both when given alone or in combination with a low-dose (10 mg/day) simvastatin

Major alternative hypothesis, Ha:

As compared with a plant stanol ester free diet, a plant stanol ester enriched diet does improve serum concentrations lipids and lipoproteins both when given alone or in combination with a low-dose (10 mg/day) simvastatin

### Ethics approval required

Old ethics approval format

### Ethics approval(s)

Received from local medical ethics committee

### Study design

Randomised double blind placebo controlled parallel group trial

### Primary study design

Interventional

### Study type(s)

Prevention

### Health condition(s) or problem(s) studied

Endothelium, systemic inflammation, lipids, lipoproteins

### Interventions

1. Control yogurt drink + placebo tablets
2. Control yogurt drink + simvastatin tablets (10 mg/day)
3. Plant stanol ester yogurt drink + placebo tablets
4. Plant stanol ester yogurt drink + simvastatin tablets (10 mg/day)

### Intervention Type

Other

### Phase

Not Specified

### Primary outcome(s)

Serum lipid and lipoprotein concentrations.

### Key secondary outcome(s))

Serum markers for endothelial function and low grade systemic inflammation.

**Completion date**

05/08/2005

## Eligibility

**Key inclusion criteria**

1. Stable dietary habits
2. Men 55-70 years of age
3. Men 45-54 and women 55-70 years of age with at least one of the following criteria:
  - 3.1. Familial history of coronary heart disease (CHD) in first degree relatives (parent/brother/sister). Only CHD in male relatives below 55 years and in female relatives below 65 years is considered.
  - 3.2. Overweight as defined by body mass index (BMI)  $>25$  (as calculated from weight and length) or abdominal obesity (waist circumference  $>102$  cm for men,  $>88$  cm for women)

**Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Other

**Sex**

All

**Key exclusion criteria**

1. Smoking
2. Active cardiovascular disease like congestive heart failure or recent ( $< 6$  months) event (acute myocardial infarction, CVA)
3. Peripheral vascular disease
4. Familial hypercholesterolemia
5. Impairment of renal function, as evidenced by increased serum creatinine  $>150$  mmol/l
6. Hepatic diseases as manifested by alanine aminotransferase (ALT), aspartate aminotransferase (AST), gamma-glutamyltransferase (GGT), total bilirubin or alkaline phosphatase (ALP)  $>2$  times the upper limit of normal
7. Severe medical conditions that might interfere with the study such as epilepsy, asthma, chronic obstructive pulmonary disease (COPD), inflammatory bowel diseases, and rheumatoid arthritis
8. Use of medication such as corticosteroids, diuretics or lipid lowering medication including statin use in the prior 2 months
9. Hypersensitivity to simvastatin or any excipient
10. Previous history of muscular toxicity with a statin or fibrate
11. Concomitant use of potent CYP3A4 inhibitors (e.g. itraconazole, ketoconazole, human immunodeficiency virus [HIV] protease inhibitors, erythromycin, clarithromycin, telithromycin, nefazodone)
12. Unstable body weight (weight gain or loss  $>3$  kg in the past three months)
13. Abnormal hematological profile
14. Abuse of drugs and/or alcohol

- 15. Pregnant or breastfeeding women
- 16. Use of sterol or stanol ester products within the previous 30 days
- 17. Participation in another study within 1 month prior to the screening visit
- 18. Having donated blood (as blood donor) within 1 month prior to the screening visit or planning to do so during the study

**Date of first enrolment**

25/01/2005

**Date of final enrolment**

05/08/2005

## **Locations**

**Countries of recruitment**

Netherlands

**Study participating centre**

**Maastricht University**

Maastricht

Netherlands

6200 MD

## **Sponsor information**

**Organisation**

Nutrition and Toxicology Research Institute Maastricht (NUTRIM) (Netherlands)

**ROR**

<https://ror.org/02jz4aj89>

## **Funder(s)**

**Funder type**

Industry

**Funder Name**

Mc Neil Consumer Nutritionals (Europe)

## **Results and Publications**

## **Individual participant data (IPD) sharing plan**

### **IPD sharing plan summary**

Not provided at time of registration