The effect of arabinose on glycaemic response and glucose absorption

Gepubliceerd: 15-04-2015 Laatst bijgewerkt: 19-03-2025

The main objective is to quantify and compare sucrose hydrolysis by sucrase and glucose absorption and glycaemic response of added arabinose to liquid and solid sucrose containing food products.

Ethische beoordeling	Positief advies
Status	Werving gestart
Type aandoening	-
Onderzoekstype	Interventie onderzoek

Samenvatting

ID

NL-OMON23134

Bron
NTR

Verkorte titel
Ara-study

Aandoening

Eating behaviour, obesity, overweight, diabetes

Ondersteuning

Primaire sponsor: Wageningen University
Overige ondersteuning: Cosun

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

Plasma glucose and insulin levels

Toelichting onderzoek

Doel van het onderzoek

The main objective is to quantify and compare sucrose hydrolysis by sucrase and glucose absorption and glycaemic response of added arabinose to liquid and solid sucrose containing food products.

Onderzoeksopzet

Every subject will visit the laboratory 7 times:

1. For an information meeting;

2. For a screening meeting;

3. 5 testsessions with in each session:

A. Plasma glucose and insulin levels and breath sample collection: 2 times before start of the treatment, and at 15, 30, 45, 60, 90, 120, 150, and 180 minutes after start of the treatment.

B. VAS questionnaire: Directly before, and at 15, 30, 45, 60, 75, 90, 120, 150, 180, 210, 240, and 270 minutes after start of the treatment;

C. Ad libitum test meal at 240 minutes after start of the treatment;

D. Gastro-intestinal comfort directly before and at 180 and 270 minutes after start of the treatment.

Onderzoeksproduct en/of interventie

1) Control drink; 2) Xylose drink; 3) Arabinose drink; 4) Control muffin; and 5) Arabinose muffin

Contactpersonen

Publiek

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

- Male

- 18-35 Years old while signing the informed consent

- Good Dutch speaking, writing, understanding

- Healthy: as judged by the subject

- BMI: 18.5-25 kg/m2

- Stable body weight, i.e. no reported weight loss or weight gain of > 5 kg in the two months prior to the screening session

- Normal fasting glucose concentration <6.1 mmol/L

- Normal hemoglobine (Hb) concentration >8.5 mmol/L

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

- Allergy, intolerance or oversensitivity for the food products under study

- Having a history of medical or surgical events that may affect the study outcome

- Having reported gastro-intestinal problems

- Medical drug use that may affect the study outcome

- Current antibiotics usage or in the two months prior to the screening session

- Not willing to eat muffins or to drink fruit-based drinks
- Being a vegetarian (not willing to eat meat)

- Use of dietary supplements that may affect the study outcome

- Currently using a slimming or medically prescribed diet or having used one in the two months prior to the screening session

- Excessive alcohol consumption (>21 glasses/week on average)

- Elite athletes, i.e. exercise > 7h/week vigorously

- Planning to change physical activity pattern during the study period

- Having blood vessels that are too difficult for inserting a cannula, as judged by the study nurse

- Recent blood donation (<1 month prior to day 1 of the study)

- Not willing to donate blood during the study

- Not having a general practitioner

- Being an employee of Wageningen University, department of Human Nutrition

- Current participation in other research

Onderzoeksopzet

Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Cross-over
Toewijzing:	Gerandomiseerd
Blindering:	Dubbelblind
Controle:	Placebo

Deelname

Nederland

Status:	Werving gestart
(Verwachte) startdatum:	29-04-2015
Aantal proefpersonen:	18
Type:	Verwachte startdatum

Ethische beoordeling

Positief advies

Datum:	15-04-2015
Soort:	Eerste indiening

Registraties

Opgevolgd door onderstaande (mogelijk meer actuele) registratie

ID: 42017
Bron: ToetsingOnline
Titel:

Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

In overige registers

Register	ID
NTR-new	NL4818
NTR-old	NTR5319
CCMO	NL51738.081.15
OMON	NL-OMON42017

Resultaten