De rol van genetische aanleg in het effect van groene thee op vetoxidatie en het energiegebruik.

Gepubliceerd: 20-07-2009 Laatst bijgewerkt: 13-12-2022

We hypothesize that subjects (Asian or Caucasian) with the COMTH allele (Val/Val polymorphism) respond stronger to the GT treatment than subjects with the COMTL allele (Met/Met polymorphism), consequently have an increased EE and that the genetic...

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

Samenvatting

ID

NL-OMON21016

Bron
NTR

Verkorte titel
Green tea and polymorphisms

Aandoening

Obesity

Ondersteuning

Primaire sponsor: FrieslandCampina
Overige ondersteuning: FrieslandCampina

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

1. Effect of green tea on : Energy expenditure and fat oxidation;
2. Feelings of hunger and satiety measured with visual analogue scales;
3. Effects of different polymorphisms in people with different ethnicity on the utcome of energy expenditure and substrate oxidation after supplementation with green tea.

Toelichting onderzoek

Achtergrond van het onderzoek

Previous studies have shown that green tea enhances thermogenesis and fat oxidation. However, differences in outcome between Asian and Caucasian studies suggests that their might be a genetical factor thet influences the thermogenic effect. Differences in allelefrequencies of the enzyme COMT, the main target of catechins in green tea, between populations might underlie the different response to tea between subjects.

Doel van het onderzoek

We hypothesize that subjects (Asian or Caucasian) with the COMTH allele (Val/Val polymorphism) respond stronger to the GT treatment than subjects with the COMTL allele (Met/Met polymorphism), consequently have an increased EE and that the genetic differences between Asians and Caucasians are responsible for the different outcomes in GT studies with both subjects.

Onderzoeksopzet

One test arm will last for 36 hours. In total both test arms will last for 72 hours. Hunger and satiety are measured every hour from 08.00 AM till 11.00 PM.

Onderzoeksproduct en/of interventie

All subjects spent 2 x 36 hours in randomized order in a respiration chamber on the university. On one of these occasions subjects receive green tea (757 mg/capsule) next to their meals, during the other visit the subjects will receive a placebo instead of tea. All subjects are randomly exposed to both treatments.

Contactpersonen

Publiek

Maastricht University

Dept. Humane Biology
PO Box 616

Rick Hursel
Maastricht 6200 MD
The Netherlands
+31 43 3882123

Wetenschappelijk

Maastricht University
Dept. Humane Biology
PO Box 616

Rick Hursel
Maastricht 6200 MD
The Netherlands
+31 43 3882123

Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

1. Healthy;

2. Asian and Caucasian men and women;

3. A Body Mass Index (BMI) between 18-25 kg/m2;

4. Age of 18-50 years;

5. They must have either a COMTH allele or a COMTL allele.

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

Exclusion criteria for subjects are apart from age, BMI, origin and polymorphisms:

1. Smoking;

2. Being on medication (except the use of contraception);

3. Excessive alcohol consumption;

4. Excessive exercise;

5. Not being weight stable;

6. Being dietary restraint (assessed by the Three Eating Questionnaire (TFEQ));

7. People who drink more than one cup of coffee per day.

Onderzoeksopzet

Opzet

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

Deelname

Nederland

Status:	Werving nog niet gestart
(Verwachte) startdatum:	15-09-2009
Aantal proefpersonen:	48
Type:	Verwachte startdatum

Ethische beoordeling

Positief advies

Datum:	20-07-2009
Soort:	Eerste indiening

Registraties

Opgevolgd door onderstaande (mogelijk meer actuele) registratie

Geen registraties gevonden.

Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

In overige registers

Register	ID
NTR-new	NL1808
NTR-old	NTR1918
Ander register	MEC Unimaas : MEC 09-3-003
ISRCTN	ISRCTN wordt niet meer aangevraagd.

Resultaten

Samenvatting resultaten
N/A