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

No registrations found.

| | |
|---|---|
| **Ethical review** | Positive opinion |
| **Status** | Pending |
| **Health condition type** | - |
| **Study type** | Interventional |

## Summary

### ID

NL-OMON21016

**Source**
NTR

**Brief title**
Green tea and polymorphisms

**Health condition**

Obesity

### Sponsors and support

**Primary sponsor:** FrieslandCampina
**Source(s) of monetary or material Support:** FrieslandCampina

### Intervention

### Outcome measures

**Primary outcome**

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.

### Secondary outcome

No secondary outcomes.

## Study description

### Background summary

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.

### Study objective

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.

### Study design

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.

### Intervention

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.

## Contacts

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# Eligibility criteria

## Inclusion criteria

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.

## Exclusion criteria

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.

# Study design

## Design

| | |
|---|---|
| Study type: | Interventional |
| Intervention model: | Crossover |
| Allocation: | Randomized controlled trial |
| Masking: | Single blinded (masking used) |
| Control: | Placebo |

## Recruitment

NL

| | |
|---|---|
| Recruitment status: | Pending |
| Start date (anticipated): | 15-09-2009 |
| Enrollment: | 48 |
| Type: | Anticipated |

# Ethics review

Positive opinion

| | |
|---|---|
| Date: | 20-07-2009 |
| Application type: | First submission |

# 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 |
|---|---|
| NTR-new | NL1808 |
| NTR-old | NTR1918 |
| Other | MEC Unimaas : MEC 09-3-003 |
| ISRCTN | ISRCTN wordt niet meer aangevraagd. |

# Study results

**Summary results**
N/A