The effects of high-protein breakfasts.

No registrations found.

Ethical review	Positive opinion
Status	Recruiting
Health condition type	-
Study type	Interventional

Summary

ID

NL-OMON28372

Source NTR

Brief title The effects of high protein breakfsts.

Health condition

- 1. Voedselingredienten;
- 2. energiegebruik;
- 3. verzadiging;
- 4. positieve energiebalans;
- 5. food ingredients;
- 6. energy expenditure;
- 7. satiety;
- 8. positive energy balance.

Sponsors and support

Primary sponsor: Friesland Nutrition PO Box 226 8901 MA Leeuwarden

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Phone: +31582992434 Fax: +31582992286 E-mail: lucie.vanderzee@frieslandfoods.com Source(s) of monetary or material Support: Friesland Nutrition

Intervention

Outcome measures

Primary outcome

1. Energy expenditure;

2. Satiety, using the Visual Analogue Scale (VAS) score (o to 10, 0 = no hunger and 10 = extreme hunger).

Secondary outcome

Substrate use, indicated by the respiratoy quotient.

Study description

Background summary

High protein diets cause a thermogenic effect and increase satiety. When people are satiated, energy intake will be restricted. A positive energy balance, can be prevented because of the addition of extra proteins to the breakfasts. During the next meal energy intake will be less, because people might be satiated and still full. Also the energy expenditure will be increased by the extra proteins which also prevents a positive energy balance.

The additional green tea during one of the interventions also causes a thermogenic effect. Green tea contains different components which inhibit particular enzymes. Through this the symphatic activity is increased and also the energy expenditure.

Study objective

The administration of a whey protein/ alphalactalbumine/ green tea mixture to a standardized yogurt breakfast, will cause an increase in post-prandial energy expenditure, due to diet-induced thermogenesis and an increase in satiety within 5 hours.

Study design

One testday is 5 hours. 30 minutes before the intervention the energy expenditure is

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measured and after the intervention energy expenditure is measured for 4,5 hours. Satiety is measured every hour and 1 hour after the intervention even every 20 minutes.

Intervention

Subjects will eat 4 different breakfasts. Subjects will come to the university once a week for 4 consecutive weeks. There energy expenditure will be measured by means of indirect calorimetry (ventilated hood). Also, satiety is measured with visual analog scales. Randomization will determine in which sequence the subjects will receive the interventions. This are the interventions:

- 1. placebo yogurt (15% proteins, 47% carbohydrates and 38% fat);
- 2. placebo yogurt + whey protein (41% proteins, 47% carbohydrates and 12% fat);
- 3. placebo yogurt + alphalactalbumine (41% proteins, 47% carbohydrates and 12% fat);
- 4. placebo yogurt + green tea catechins (15% proteins, 47% carbohydrates and 38% fat).

The breakfast consists of 20% of the daily energy intake and is subject specific.

Contacts

Public

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Eligibility criteria

Inclusion criteria

Healthy men and women, with a Body Mass Index (BMI) between 22-33 kg/m2, and age of 20-60 years.

Exclusion criteria

Exclusion criteria for subjects are apart from age and BMI:

- 1. smoking;
- 2. having food allergies (especially milk protein allergies);
- 3. being on medication (except the use of contraception);
- 4. excessive alcohol consumption;
- 5. excessive exercise;
- 6. not being weight stable;
- 7. being dietary restraint (assessed by the Three Eating Questionnaire (TFEQ));
- 8. 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:	Recruiting
Start date (anticipated):	07-01-2008
Enrollment:	40
Туре:	Anticipated

Ethics review

Positive opinion	
Date:	16-10-2007
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	NL1062
NTR-old	NTR1095
Other	MEC nr. : 07-3-080.
ISRCTN	ISRCTN wordt niet meer aangevraagd

Study results

Summary results

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N/A