The effects of high-protein breakfasts.

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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.

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

Samenvatting

ID

NL-OMON28372

Bron
NTR

Verkorte titel
The effects of high protein breakfsts.

Aandoening

1. Voedselingredienten;

2. energiegebruik;

3. verzadiging;

4. positieve energiebalans;

5. food ingredients;

6. energy expenditure;

7. satiety;

8. positive energy balance.

Ondersteuning

Primaire sponsor: Friesland Nutrition
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Overige ondersteuning: Friesland Nutrition

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

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

Toelichting onderzoek

Achtergrond van het onderzoek

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.

Doel van het onderzoek

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.

Onderzoeksopzet

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

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.

Onderzoeksproduct en/of interventie

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.

Contactpersonen

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

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

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

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.

Onderzoeksopzet

Opzet

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

Deelname

Nederland

Status:	Werving gestart
(Verwachte) startdatum:	07-01-2008
Aantal proefpersonen:	40
Type:	Verwachte startdatum

Ethische beoordeling

Positief advies

Datum:	16-10-2007
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	NL1062
NTR-old	NTR1095
Ander register	MEC nr. : 07-3-080.

Register	ID
ISRCTN	ISRCTN wordt niet meer aangevraagd

Resultaten

Samenvatting resultaten
N/A