The effects of orally and intraduodenally administered pea protein on satiety parameters in vivo in lean and obese subjects

Gepubliceerd: 09-09-2008 Laatst bijgewerkt: 18-08-2022

Our hypothesis is that administration of intact protein into the duodenum will be more satiating compared to oral administration.

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

Samenvatting

ID

NL-OMON28061

Bron
Nationaal Trial Register

Verkorte titel
N/A

Aandoening

Obesity, dietary proteins, oral administration, duodenal administration, satiety

Ondersteuning

Primaire sponsor: Transnational University Limburg
Overige ondersteuning: N/A

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

The effects of orally- and intraduodenally administered intact protein on systemic satiety hormone levels (CCK, GLP-1, and PYY) and feelings of hunger and satiety

Toelichting onderzoek

Achtergrond van het onderzoek

This study will investigate the effects of different administration routes of pea protein on intestinal satiety hormone release, on plasma satiety hormone levels and on feelings of hunger and satiety.

This study is a randomized, placebo controlled cross-over study with 2 groups of volunteers. One group will consist of healthy lean male subjects. The other group will consist of obese male subjects.
All subjects will receive both pea protein and placebo, administered either orally or intraduodenally, depending on the test day.
All subjects will visit the university on four occasions. On these test days, subjects will receive placebo or pea protein, either orally or intraduodenally. Two consecutive test sessions will be interspaced with a one-week washout period. Blood samples will be collected during a 2h period, and a questionaire will be filled in by the subjects. Levels of CCK and GLP-1 will be measured in the bloodsamples.

Doel van het onderzoek

Our hypothesis is that administration of intact protein into the duodenum will be more satiating compared to oral administration.

Onderzoeksopzet

All subjects will visit the university on four occasions. On these test days, subjects will receive placebo or pea protein, either orally or intraduodenally. Two consecutive test sessions will be interspaced with a one-week washout period.

Onderzoeksproduct en/of interventie

This study is a randomized, placebo controlled cross-over study with 2 groups of volunteers. One group will consist of healthy lean male subjects. The other group will consist of obese male subjects.
All subjects will receive both the test protein and the placebo, administered either orally or intraduodenally, depending on the test day. Delievery of the protein and placebo into the duodenum will be through a feeding tube.

- Oral ingestion placebo

- Oral ingestion protein

- Duodenal administration placebo

- Duodenal administration protein

All conditions are randomized over 4 test days

- Gastroscopy on the 5h test day

Contactpersonen

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

1. Male, non smoking

2. Age between 18 and 65 years

3. Body Mass Index for lean subjects between 20 and 26 kg/m2

4. Body Mass Index for obese subjects between 30 and 37 kg/m2

5. No medication

6. No history of intestinal illness

7. Stable body weight over the last three months

8. No blood donation 2 months prior to the study and during the study

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

1. Age under 18 and over 65 years

2. BMI under 20 and over 37 kg/m2

3. Medication or disease that could interfere with the results of the study, to be judged by the responsible medical doctor

4. Recent blood donation within 2 months prior to the start of the study

5. Intestinal illness at any time in the past

6. Female

7. Smokers

Onderzoeksopzet

Opzet

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

Deelname

Nederland

Status:	Werving nog niet gestart
(Verwachte) startdatum:	01-11-2008
Aantal proefpersonen:	24
Type:	Verwachte startdatum

Ethische beoordeling

Positief advies

Datum:	09-09-2008
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	NL1376

Register	ID
NTR-old	NTR1437
Ander register	: MEC08-3-058
ISRCTN	ISRCTN wordt niet meer aangevraagd

Resultaten

Samenvatting resultaten
N/A