Difference in digestion and absorption of milk proteins

No registrations found.

Ethical review	Positive opinion
Status	Recruitment stopped
Health condition type	-
Study type	Interventional

Summary

ID

NL-OMON29333

Source
Nationaal Trial Register

Health condition

protein digestion and absorption
milk proteins
whole-body protein synthesis
eiwitvertering
melkeiwitten
eiwitsynthese

Sponsors and support

Primary sponsor: Maastricht University
Source(s) of monetary or material Support: Maastricht University

Intervention

Outcome measures

Primary outcome

exogenous phenylalanine appearance rates

Secondary outcome

whole-body protein synthesis
plasma insulin, glucose and amino acid concentrations

Study description

Study objective

The following hypothesis will be investigated:

- Casein ingested as calcium-caseinate results in a more rapid digestion and absorption, and subsequent whole body net protein balance, as compared to the ingestion of micellar casein.

- The ingestion of a calcium-caseinate solution will result in a more rapid digestion and absorption, and subsequent whole body net protein balance, as compared to the ingestion of calcium-caseinate fibers.

Study design

blood samples will be taken immediately before ingestion of the protein supplement (t=0), and at timepoints: 15, 30, 45, 60, 90, 120, 150, 180, 210, 240, 300 and 360 min.

Intervention

each subject will participate in one trial, randomly assigned. Intervention consists of the ingestion of an intrinsically labeled protein supplement: micellar casein, calcium caseinate, or caseinate fibers, whereafter regular blood samples are taken.

Contacts

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Eligibility criteria

Inclusion criteria

- Males

- Aged between 18-35 years

- Healthy, recreationally active (participating in recreational sports activities ¡Ü 3 times per week)

- BMI < 25 kg/m2

- No physical limitations (i.e. able to perform all activities associated with daily living in an independent manner).

Exclusion criteria

- Female

- Smoking

- Allergies to milk proteins

- Musculoskeletal disorders

- Use of any medications known to affect protein metabolism (i.e. corticosteroids, non-steroidal anti-inflammatories, or prescribed acne medications).

- Participation in any structured regular exercise program

- Chronic use of gastric acid suppressing medication or anti-coagulants
- Unstable weight over the last three months

- Pathologies of the gastrointestinal tract

Study design

Design

Study type:	Interventional
Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Open (masking not used)
Control:	Active

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	01-09-2015
Enrollment:	45
Type:	Actual

Ethics review

Positive opinion

Date:	03-06-2015
Application type:	First submission

Study registrations

Followed up by the following (possibly more current) registration

ID: 44783
Bron: ToetsingOnline
Titel:

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
NTR-new	NL5110
NTR-old	NTR5242
CCMO	NL52798.068.15
OMON	NL-OMON44783

Study results