# 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**

#### **Public**

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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**