Casein in milk as a functional ingredient for the prevention of sarcopenia

No registrations found.

Ethical review	Not applicable
Status	Pending
Health condition type	-
Study type	Interventional

Summary

ID

NL-OMON20646

Source
Nationaal Trial Register

Brief title
Casein in Milk

Health condition

Sarcopenia

Sponsors and support

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

Intervention

Outcome measures

Primary outcome

fractional synthetic rate

Secondary outcome

• Exogenous phenylalanine rate of appearance and plasma availability of phenylalanine.

• Total rate of phenylalanine appearance and disappearance
• Endogenous phenylalanine rate of appearance

Study description

Study objective

Casein ingested within a normal milk matrix results in a more rapid digestion and amino acid absorption, resulting in greater amino acid availability and post-prandial muscle protein accretion as compared to the ingestion of isolated casein (without a milk matrix)

Study design

baseline
2 h
5 h

Intervention

Subjects will be randomly assigned to consume either a drink containing isolated casein or casein in the normal milk matrix. By the use of stable isotope methodology we will assess the digestion and absorption kinetics of the ingested protein source and the fractional synthetic rate (FSR) of muscle proteins in the fasting and fed state in an in vivo human setting.

Contacts

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Eligibility criteria

Inclusion criteria

- Males
- Aged between 65-85 years
- Healthy, recreationally active
- BMI < 30 kg/m2

Exclusion criteria

- Female
- Smoking
- Allergies to milk proteins (whey or casein)
- Arthritic conditions
- Over the counter antacids
- Diabetes mellitus type 1 and type 2
- A history of neuromuscular problems
- Individuals on any medications known to affect protein metabolism (i.e. corticosteroids, non-steroidal anti-inflammatories, or prescription strength acne medications).
- Participation in any 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:	Double blinded (masking used)
Control:	N/A , unknown

Recruitment

NL

Recruitment status:	Pending
Start date (anticipated):	01-04-2014
Enrollment:	32
Type:	Anticipated

Ethics review

Not applicable
Application type: Not applicable

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	NL4285
NTR-old	NTR4429
Other	METC : 13-3-063.3

Study results