# Protein oxidation breath test: The influence of exercise on protein oxidation

No registrations found.

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

# **Summary**

# ID

NL-OMON22625

Source NTR

Brief title EPOS

#### Health condition

protein metabolism, protein oxidation, breath test

## **Sponsors and support**

**Primary sponsor:** University Medical Center Groningen (UMCG) **Source(s) of monetary or material Support:** Goverment funded

## Intervention

## **Outcome measures**

#### **Primary outcome**

Percentage of given protein oxidized over 5,5 hours

#### Secondary outcome

Urine urea and creatinin. Urea is a measure for protein intake

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# **Study description**

#### **Study objective**

Ingested protein derived amino acids are primarily used for synthesis of new protein, secondly all surplus is oxidized for energy. Exercise can influence protein metabolism and has shown in pilot experiments to reduce protein oxidation when exercise is given prior to the breath test.

#### Study design

33 timepoints: a breath sample is given every 10 minutes, from 0 to 330 minutes

#### Intervention

Cycling: Submaximal Astrand test, 15 minutes of 30% at VO2max and 15 minutes of 60% at VO2max

# Contacts

#### Public

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# **Eligibility criteria**

## **Inclusion criteria**

Male

Age between 18 – 30 years Be able to fast overnight Be able to consume a 500 ml test drink within 5 minutes Be able to fast for 5.5 hours Body Mass Index between 20 and 25 kg/m2 Be able to speak the Dutch language and give written consent Score 'low risk' on the ASCM Risk Classification form

## **Exclusion criteria**

Disease and/or being medically treated (e.g. diabetes mellitus) Heart condition Milk (protein) allergy or intolerance Smoking Drug use Alcoholism, and no alcohol during the 4-day diets Waist circumference ≥102 cm

# Study design

## Design

Study type:InterventionalIntervention model:CrossoverAllocation:Non controlled trialMasking:Open (masking not used)Control:N/A , unknown

# Recruitment

NL	
Recruitment status:	Other
Start date (anticipated):	01-02-2017
Enrollment:	16
Type:	Unknown

# **Ethics review**

Not applicable Application type:

Not applicable

# **Study registrations**

# Followed up by the following (possibly more current) registration

ID: 45714 Bron: ToetsingOnline Titel:

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

No registrations found.

## In other registers

Register	ID
NTR-new	NL6023
NTR-old	NTR6154
ССМО	NL59615.042.16
OMON	NL-OMON45714

# **Study results**