Vegan Diets: the short-term effects on daily muscle protein synthesis rates as compared to omnivorous diets in Older adults assessed by D2O.

No registrations found.

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

Summary

ID

NL-OMON26953

Source
NTR

Brief title
VD2O-study

Health condition

Sarcopenia

Sponsors and support

Primary sponsor: Wageningen University and research
Source(s) of monetary or material Support: Rijksoverheid

Intervention

Outcome measures

Primary outcome

Muscle protein synthesis

Secondary outcome

Satiety; plasma glucose; insulin; plasma lipid profile; blood pressure

Study description

Background summary

A major cause of global environmental change is food production, with animal based food products having the greatest impact on the environment. Therefore, consumers are increasingly encouraged to consume more plant-based foods and lower their consumption of foods from animal origin. However, the consequences of such a transition on muscle mass still remains to be explored. This is of particular importance in the older population, where sarcopenia is highly prevalent. Therefore, we aim to investigate the short-term effect of a vegan diet on daily muscle fractional synthesis rates in comparison to an omnivorous diet in community-dwelling older adults. The study will have a randomized controlled cross-over design and will include healthy older adults, aged 65-79 years.

Study objective

The vegan diet will differently affect muscle protein synthesis rates in older adults than the omnivorous diet.

Study design

Baseline; 10 days; 20 days

Intervention

Vegan diet

Contacts

Public
Wageningen University
Jacintha Domic

0642984983
Scientific
Wageningen University
Jacintha Domic

0642984983

Eligibility criteria

Inclusion criteria

Aged 65-79 years old; Community-dwelling; BMI 20-35 kg/m2.

Exclusion criteria

- Following a vegetarian or vegan diet during the six months prior to the study;
- Following a diet that affects protein intake during the six months prior to the study;
- Participating in a structured exercise training program in the past three months;
- ≥5% of body weight loss during three months before the start of the study;
- Being diagnosed with one of the following: diabetes; renal disease; neurological or neuromuscular disorders; serious cardiovascular diseases; cancer; chronic obstructive lung disease (COPD);
- Chronic use of medication that affects muscle function, e.g. corticosteroids, metformin, insulin;
- The use of the following medicines: acenocoumarol (sintrom); phenprocoumon (marcoumar); dabigatran (pradaxa); apixaban (eliquis); rivaroxaban (xarelto); clopidogrel (plavix); combination of acetylsalicylic acid or carbasalate calcium (ascal) with dipyridamole.
- Allergic or intolerant to any product included in the diets;
- Not willing to stop nutritional supplements, with the exception of supplements on medical advice, and vitamin D;
- Not willing or afraid to give blood or undergo a muscle biopsy during the study;
- Unwilling to eat a vegan and an omnivorous diet for ten days each;
- Not vaccinated for COVID-’19;
- Currently a research participant in another trial or participated in a clinical trial during three months before the start of the measurement period;
- Not being able to understand Dutch;
- Not having a general physician.

Study design

Design

Study type: Interventional

Intervention model:	Crossover
Allocation:	Randomized controlled trial
Masking:	Open (masking not used)
Control:	Active

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	08-11-2021
Enrollment:	24
Type:	Actual

IPD sharing statement

Plan to share IPD: Undecided

Ethics review

Positive opinion

Date:	22-06-2021
Application type:	First submission

Study registrations

Followed up by the following (possibly more current) registration

ID: 51234
Bron: ToetsingOnline
Titel:

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

No registrations found.

In other registers

Register	ID
NTR-new	NL9542
CCMO	NL76916.028.21
OMON	NL-OMON51234

Study results