De effecten van 4 weken training en eiwitsupplementen op spierkracht, spiermassa en conditie in een ongetrainde 55+ populatie

No registrations found.

Ethical review	Positive opinion
Status	Recruiting
Health condition type	-
Study type	Interventional

Summary

ID

NL-OMON22231

Source
NTR

Brief title
STEP

Health condition

low muscle strength, low muscle mass, low physical fitness, sarcopenia, aging process

Sponsors and support

Primary sponsor: Ziekenhuis Gelderse Vallei
Source(s) of monetary or material Support: This research is part of the Eat2Move project and supported by a grant from the Province of Gelderland.

Intervention

Outcome measures

Primary outcome

The primary outcome of this study is the change in isometric quadriceps strength (Biodex).

Secondary outcome

Secondary parameters are changes in quadriceps muscle mass (MRI and ultrasound), handgrip strength (dynamometer), power of the lower limb (chair rise time test), physical fitness (Åstrand-Rhyming test), habitual physical activity (accelerometer) and daily protein intake (24h recall questionnaire).

Study description

Background summary

Rationale and objective:

The aging process and physical inactivity are both clearly linked to low muscle mass, muscle strength and physical fitness. Long-term exercise programs in combination with protein supplementation show improvements in muscle function. However, in some circumstances such as prior surgery, time available to improve person’s muscle function and physical fitness is limited to a few weeks. Therefore, the present study aims to investigate whether an improvement in muscle strength, muscle mass and physical fitness can be achieved within 4 weeks of exercise and protein supplementation in a group of untrained men and women aged 55-75 years.

Study design:
Single group repeated measures design.

Study population:
18 untrained men and women aged 55 to 75 years who do not meet the Dutch Norm for Health-enhancing Physical Activity ('Nederlandse Norm Gezond Bewegen').

Intervention:
4 weeks of exercise and protein supplementation

Main study parameters:
Changes in quadriceps strength, quadriceps muscle mass, handgrip strength, power of the lower limb, physical fitness, habitual physical activity and daily protein intake. Parameters are assessed at baseline, 2 weeks and 4 weeks.

Study objective

Short-term exercise and protein supplementation enhances muscle strength, mass and physical fitness in a group of untrained men and women aged 55-75 years.

Study design

Parameters are assessed at baseline, 2 weeks and 4 weeks.

Intervention

All subjects will receive a 4 week intervention program consisting of:

1) an exercise program (combination of resistance and aerobic exercises during supervised exercise sessions, and a home-based advice)

2) protein supplementation.

Contacts

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Eligibility criteria

Inclusion criteria

- Aged 55 to 75 years.

- Not meeting the Dutch Norm for Health-enhancing Physical Activity ('Nederlandse Norm Gezond Bewegen').

- No participation in any structured or regular exercise training programs for the last 3 months.

Exclusion criteria

- Allergic or sensitive for milk proteins, or lactose intolerant.

- Diagnosed with renal insufficiency.

- On a diet which affects protein intake (i.e. advices of an increase, decrease or type of protein (intake)).

- Having known contraindications for exercise.

- Diagnosed with cancer for which currently treated.

- Having a contraindication to MRI scanning (including, but not limited to):

o pacemakers and defibrillators

o intraorbital or intraocular metallic fragments

o ferromagnetic implants

o claustrophobia

- Participation in another intervention trial.

- Unable to understand Dutch.

Study design

Design

Study type:	Interventional
Intervention model:	Other

Allocation:	Non controlled trial
Masking:	Open (masking not used)
Control:	N/A , unknown

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	01-03-2016
Enrollment:	18
Type:	Anticipated

Ethics review

Positive opinion

Date:	16-02-2016
Application type:	First submission

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	NL5595
NTR-old	NTR5701
Other	: METC-WU (15/35)

Study results