# The role of the intrinsic foot muscles in gait and balance in older adults

No registrations found.

Ethical review	Positive opinion
Status	Suspended
Health condition type	-
Study type	Observational non invasive

## **Summary**

## ID

NL-OMON28927

Source NTR

Brief title STIFF II

#### Health condition

Healthy older adults

## **Sponsors and support**

**Primary sponsor:** College van Bestuur Stichting Fontys **Source(s) of monetary or material Support:** WMO promotiebeurs voor leraren

#### Intervention

#### **Outcome measures**

#### **Primary outcome**

The association between intrinsic foot muscles' size and a) gait biomechanics, b) static balance and c) dynamic balance

#### Secondary outcome

1 - The role of the intrinsic foot muscles in gait and balance in older adults 3-05-2025

# **Study description**

#### **Background summary**

Falling is highly prevalent among older adults and has serious societal impact. Falls occur mainly during walking as a result of altered gait and/or the inability to maintain postural balance. The size of the foot's soft tissues (e.g. muscles), assessed with ultrasonography, has been shown to be associated with gait biomechanics and balance in young healthy adults. However, this association has not yet been investigated in the older population. If this association exists, it may be beneficial to strengthen these muscles with exercise therapy, which would be the next step towards the optimization of fall prevention programs. Objective: to examine the association between the size of intrinsic foot muscles and gait biomechanics and balance in older adults.

Study design: a cross-sectional study will be performed consisting of two measurement occasions: one home visit 1-2 weeks prior to motion analysis laboratory measurements. Additionally, the same participants are followed up for a 12 month period in which fall incidents are reported by the participants.

Study population: Older adults (>65 years) who are free of any known condition or disease affecting gait and/or balance.

Main study parameters/endpoints: the association between intrinsic foot muscles' size and a) gait biomechanics, b) static balance and c) dynamic balance.

#### **Study objective**

The size of intrinsic foot muscles is associated with gait biomechanics and balance in older adults

#### Study design

baseline for all parameter and 12 consecutive monthly follow ups for fall incidence record

#### Intervention

n/a

# Contacts

## Public

Fontys Paramedische Hogeschool

2 - The role of the intrinsic foot muscles in gait and balance in older adults 3-05-2025

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# **Eligibility criteria**

## **Inclusion criteria**

age 65 years and over

## **Exclusion criteria**

peripheral neuropathy;

neurological conditions affecting the neuro-musculoskeletal system; severe visual impairments that are not corrected by glasses or lenses. current or recurring painful joints or feet without a preceding provocative activity. any other known condition or disease that is reported by the person as hindering movement, gait, and/or balance

# Study design

## Design

Study type:	Observational non invasive
Intervention model:	Other
Allocation:	Non controlled trial
Masking:	Double blinded (masking used)
Control:	N/A , unknown

#### Recruitment

Recruitment status:	Suspended
Start date (anticipated):	01-03-2020
Enrollment:	50
Туре:	Anticipated

#### **IPD** sharing statement

Plan to share IPD: Undecided

# **Ethics review**

Positive opinion	
Date:	13-01-2020
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** NTR-new Other **ID** NL8314 METC MMC : W19.107

# **Study results**