A good beginning: Sit-stand workstations in the primary school classroom

No registrations found.

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

Summary

ID

NL-OMON23559

Source
Nationaal Trial Register

Brief title
A Good Beginning

Health condition

Physical (in)activity, sedentary time, physical fitness, physiologic measures, cognitive skills, academic performance, sleep, stool, quality of life

Sponsors and support

Primary sponsor: Leyden Academy on Vitality and Ageing 
Source(s) of monetary or material Support: Leiden municipality (gemeente Leiden; monetary)
Leyden Academy on Vitality and Ageing (in kind)
Lorentzschool Leiden (in kind)
Universiteit Leiden, Faculteit der Sociale Wetenschappen, Sectie Psychologie (in kind)
Presikhaaf Schoolmeubelen (material)

Intervention

Outcome measures

Primary outcome

Time of physical (in)activity during a school week as measured with the Activ8 activity tracker (time spent lying, sitting, standing, walking, running, cycling, playing, etc).

Academic achievements following a regular Dutch system (leerlingvolgsysteem, CITO)

Secondary outcome

Physical fitness:

Shuttle-run test

Vertical jump

Hand grip strength

Physiology:

Length

Weight

Body composition (percentages fat and muscle mass)

Cognitive functions:

N-back test (memory)

Wisconsin Card Sorting task (flexibility)

Tower of London (planning)

Fish Flanker Task (inhibition)

Psychology:

Faces scale (happiness)

KIDSCREEN 52/27 (quality of life)

Extra:

Sleep diary

Stool diary (Bristol Stool Scale)

Satisfaction with the school environment

Study description

Background summary

Recent studies indicate that stand-biased classroom furniture leads to a reduction in sedentary time, an increase in physical activity, and, hence a an increase in energy expenditure. Such furniture does not seem to result in adverse effects in classroom behaviour and learning. However, to date, all reported studies had durations shorter than a full academic year, and focused on only a small number of factors that are affected by physical (in)activity. Therefore, in this controlled study with a repeated measures design, primary school children with hand without stand-biased classroom furniture will be followed for three years. That is, at an elementary school in Leiden, The Netherlands, one group (grade 5 in the Dutch system; 8-10 years old) will receive sit-stand workstations in their classroom. The teacher of this group will also receive a sit-stand workstation. The children in this group will be invited and motivated to reduce sedentary time. They will not be ordered or obligated to stand more than otherwise would happen. The effect of the sit-stand workstations (and the rolmodel the teacher will be) in reducing sedentary time will be investigated with a number of outcome measures related to physical (in)activity, academic achievement, physical fitness, physiological, cognitive, and psychological measures, sleep, stool, and satisfaction with the school environment. All outcomes will be compared between the intervention group (i.e., the group with sit-stand workstations; approximately 28 children) and a control group (i.e., a similar age group with regular workstations; approximately 28 children). Both groups will be followed for three years. At two time points each year, all outcomes will be measured.

Study objective

Given the fact that behavior is for the largest part driven by the context that we live in, sit-stand workstations in the classroom may invite and seduce children to be more active and reduce sedentary time at school. If sit-stand workstations induce a more active lifestyle, long-term health benefits may also be expected. We hypothesize that a classroom furniture induced active lifestyle will result in benefits for physical fitness, fitness-related variables, cognitive and academic performance, sleep, stool, and quality of life in primary school children.

Study design

May 2017

July 2017

January 2018

July 2018

January 2019

July 2019

Intervention

The children in the intervention group (approximately 28; 8-10 years old) will receive sit-stand workstations in their classroom. They will keep these for three years. Their teacher will also receive a sit-stand workstation. The children are invited and motivated to reduce sedentary time at school. They are not ordered or obligated to stand more than would normally happen in classrooms without sit-stand workstations.
The children in the control group (approximately 28; 8-10 years old) will use regular (sit) workstations and receive regular treatment.

Contacts

Public
Leyden Academy on Vitality and Ageing 

Lex van Delden
Rijnsburgerweg 10

Leiden 2333 AA
The Netherlands
+31 71 524 0960
Scientific
Leyden Academy on Vitality and Ageing 

Lex van Delden
Rijnsburgerweg 10

Leiden 2333 AA
The Netherlands
+31 71 524 0960

Eligibility criteria

Inclusion criteria

-Children who are following primary education at a selected school and who are in grade 5 in the Dutch system.

-Children with a signed informed consent form to participate in this study.

-Children who are physically able to stand.

Exclusion criteria

-Children not following primary education at the selected primary school.

-Children who are not able to stand during the intervention periode, due to health issues or serious injuries.

Study design

Design

Study type:	Interventional
Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Single blinded (masking used)
Control:	Active

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	01-05-2017
Enrollment:	56
Type:	Actual

IPD sharing statement

Plan to share IPD: Yes

Plan description
The collected data that will be analyzed in the current study, will be available from the corresponding author on reasonable request; for example for the purpose of a review and meta-analysis.

Ethics review

Positive opinion

Date:	24-11-2016
Application type:	First submission

Study registrations

Followed up by the following (possibly more current) registration

ID: 45326
Bron: ToetsingOnline
Titel:

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

No registrations found.

In other registers

Register	ID
NTR-new	NL6166
NTR-old	NTR6313
CCMO	NL60159.000.17
OMON	NL-OMON45326

Study results

Summary results
As of yet, no publications based on this trial.