

Guidance of construction companies for the implementation of ergonomic measures

Submission date 23/07/2013	Recruitment status No longer recruiting	☐ Prospectively registered ☒ Protocol
Registration date 30/07/2013	Overall study status Completed	☐ Statistical analysis plan ☒ Results
Last Edited 24/01/2019	Condition category Other	☐ Individual participant data

Plain English summary of protocol

Background and study aims

More than seven out of ten Dutch construction workers describe their work as physically demanding. This can be reduced when ergonomic measures that provide maximum comfort are used. To help construction companies with the introduction of ergonomic measures, participatory ergonomic (PE) intervention can be used. We will look at how well two guidance strategies for a PE intervention work in terms of increase in the use of ergonomic measures, work ability and physical functioning and a decrease in limitations due to physical problems.

Who can participate?

This study will recruit 12 small and medium enterprises within the Dutch construction industry. These construction companies must be employing a physically demanding occupation and must have a potential to improve the use of ergonomic measures.

What does the study involve?

Construction companies will be guided by a trained ergonomics consultant through a six-step PE intervention to introduce ergonomic measures to their employees. This guidance will be given through two strategies: either four face-to-face meetings or 13 emails. A protocol for both guidance strategies is made by two ergonomics consultants. The duration of both guidance strategies is six months. The construction companies will be randomly allocated to one of the guidance strategies. At the end of the study, we will compare how well the strategies worked to improve the use of ergonomic measures. A cost-benefit analysis will be performed.

What are the possible benefits and risks of participating?

Possible benefits for the participating construction companies are decreasing physical work demands of their employees and possible work-related disorders. If the protocol of one or both guidance strategies is successful, the protocol can be introduced to occupational health services in the Netherlands to help other construction companies with the introduction of ergonomic measures. There are no (financial) risks for the participating construction companies and their employees. The guidance of the ergonomics consultants is of no cost for the participating construction companies and they are free in the choice of the ergonomic measure they want to introduce.

Where is the study run from?

This study has been set up by the Coronel Institute of Occupation Health, Academic Medical Center, University of Amsterdam, Netherlands.

When is the study starting and how long is it expected to run for?

Originally, the recruitment started in spring 2012. However, the recruitment of construction companies has been prolonged to July 2013. The study will end in December 2013.

Who is funding the study?

The funding has been provided by ZonMw (The Netherlands Organisation for Health Research and Development).

Who is the main contact?

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Contact information

Type(s)

Scientific

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Additional identifiers

Protocol serial number

50-51400-98-100

Study information

Scientific Title

Two guidance strategies for a participatory ergonomic intervention to increase the use of ergonomic measures of construction workers

Study objectives

Participatory ergonomics (PE) intervention can be used to facilitate behavioural changes. It is hypothesised that a face-to-face guidance of a PE intervention will increase the use of ergonomic measures, work ability, physical functioning and decrease limitations due to physical problems more compared to an e-guidance strategy.

The null hypothesis is that there is no difference in the outcome measures (use of ergonomic measures, work ability, physical functioning and limitations due to physical problems) between the two guidance strategies.

Ethics approval required

Old ethics approval format

Ethics approval(s)

N/A

Primary study design

Interventional

Study design

Six-months randomised pre-post parallel intervention study

Study type(s)

Quality of life

Health condition(s) or problem(s) studied

Use of ergonomic measures

Interventions

The intervention consists of a six-step participatory ergonomics intervention which is guided by trained ergonomics consultants. The guidance of this intervention consists of four face-to-face meetings or by 13 email contacts.

A protocol is made for both guidance strategies.

The duration of the intervention is six months. Measurements will be done at baseline and after the six months.

Intervention Type

Other

Phase

Not Applicable

Primary outcome(s)

The use of ergonomic measures by individual employees of the construction companies at the start of the study and after six months.

Key secondary outcome(s)

1. Work ability of individual employees of the construction companies at the start of the study and after six months using the work ability index (WAI)
2. Physical functioning of the RAND-36 health survey of individual employees at the start of the

study and after six months

3. Limitations due to physical problems of the RAND-36 health survey of individual employees at the start of the study and after six months

Completion date

31/12/2013

Eligibility

Key inclusion criteria

Construction companies with:

1. Less than 50 employees (small and medium enterprises within the Dutch construction industry)
2. Employing a physically demanding occupation
3. Having the potential to improve the use of ergonomic measures among their workers to reduce work demands/risks for work-related musculoskeletal disorders

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Sex

All

Key exclusion criteria

Does not meet inclusion criteria

Date of first enrolment

01/09/2012

Date of final enrolment

01/07/2013

Locations

Countries of recruitment

Netherlands

Study participating centre

Coronel Institute of Occupational Health

Amsterdam

Netherlands

1100 DD

Sponsor information

Organisation

University of Amsterdam (Netherlands)

Organisation

Arbouw

Organisation

University of Amsterdam

ROR

<https://ror.org/04dkp9463>

Funder(s)

Funder type

Research organisation

Funder Name

Netherlands Organisation for Health Research and Development

Alternative Name(s)

Netherlands Organisation for Health Research and Development

Funding Body Type

Private sector organisation

Funding Body Subtype

Other non-profit organizations

Location

Netherlands

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Not provided at time of registration

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results of the evaluation of the effects of two alternative participatory ergonomics intervention strategies for construction companies.	01/01/2019	24/01/2019	Yes	No
Results article	results of the process evaluation of two alternative participatory ergonomics intervention strategies for construction companies.	01/09/2018	24/01/2019	Yes	No
Protocol article	protocol	17/04/2014		Yes	No