

Variation in postural control strategies in people with and without low back pain

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The objectives of this study are to get insight in the following questions: 1) Is the capacity to vary in proprioceptive weighting decreased in persons with low back pain? 2) Is this decreased capacity predictive for the course of low back pain? 3)...

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Joint disorders
Study type	Observational non invasive

Summary

ID

NL-OMON31709

Source

ToetsingOnline

Brief title

Postural Control strategies and Low Back Pain

Condition

- Joint disorders

Synonym

back pain, Simple backache

Research involving

Human

Sponsors and support

Primary sponsor: Hogeschool Utrecht

Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: Low Back Pain, Motor Control, Postural Control

Outcome measures

Primary outcome

Capacity to vary in proprioceptive weighting

Periods of low back pain

Secondary outcome

Repositioningerror

Pain intensity

Impact of low back pain (Oswestry Disability Index)

Study description

Background summary

Chronic low back pain is a large problem, both individually and socially. Why low back complaints chronic become is unclear. In the literature on low back pain a shift in focus has taken place to motor control. Variation is a core term. The central nerve system uses variation between movement components to compensate for external disturbances or dysfunction of part of the movement system with the aim of keeping the output of the total movement task stable. This principle is mostly described in variables like timing and strength. The phenomenon also seems to occur in the weighting of proprioceptive signals from the different body regions. People with low back pain show a different weighting from people without low back pain. In this study the following question is investigated: is the capacity to vary in proprioceptive weighting decreased in people with low back pain and if so, is this decrease responsible for persisting of existing low back pain or initiating new periods of low back pain? Secondary questions are: is there an association between repositioningerror and the capacity to vary in proprioceptive weighting and, are lifestyle factors of influence on this capacity?

Study objective

The objectives of this study are to get insight in the following questions:

- 1) Is the capacity to vary in proprioceptive weighting decreased in persons with low back pain?
- 2) Is this decreased capacity predictive for the course of low back pain?
- 3) Is there an association between the decreased capacity to vary in proprioceptive weighting and repositioning error?
- 4) Is a physical active lifestyle, with much variation in movement, and/or sports with an appeal to stability under different external circumstances, associated with the capacity to vary in weighting of proprioception?

Study design

Prospective Observational Cohort Study.

Study burden and risks

Answering questionnaires (5 minutes up to half an hour), taking the test (45 minutes), four times during one year answering an email questioning about the number of low back pain periods during the last three months.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age

Adults (18-64 years)

Elderly (65 years and older)

Inclusion criteria

None.

Exclusion criteria

Disturbance of equilibrium, amputation of (a part of) a leg, allergy for tape, pathologies in the leg which could influence the results of the test (e.g. recent meniscus operation, acute achilles tendinitis).

Study design

Design

Study type: Observational non invasive

Masking: Open (masking not used)

Control: Uncontrolled

Primary purpose: Basic science

Recruitment

NL

Recruitment status: Recruitment stopped

Start date (anticipated): 21-04-2008

Enrollment: 500

Type: Actual

Ethics review

Approved WMO

Date: 08-04-2008
Application type: First submission
Review commission: METC Universitair Medisch Centrum Utrecht (Utrecht)

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
CCMO	NL18406.041.07