

# The centralization phenomenon and stability in patients with low back pain.

No registrations found.

<b>Ethical review</b>	Positive opinion
<b>Status</b>	Pending
<b>Health condition type</b>	-
<b>Study type</b>	Observational non invasive

## Summary

### ID

NL-OMON24740

### Source

NTR

### Health condition

centralization phenomenon  
low back pain  
stability tests  
centralisatiefenomeen  
lage rugpijn  
stabiliteitstesten

## Sponsors and support

**Primary sponsor:** EMGO+, VUmc, Amsterdam

**Source(s) of monetary or material Support:** International Mechanical Diagnosis and Therapy Research Foundation  
[www.imdtrf.org](http://www.imdtrf.org)

## Intervention

## Outcome measures

### Primary outcome

The proportion of positive instability tests measured before and after the MDT session will be

calculated for all patients as will their classification as a centralizer or non-centralizer. The differences between instability results pre and post-MDT will be reported as a percentage and investigated with X2 tests between the two groups.

## **Secondary outcome**

As a secondary analysis, patients with a directional preference will be regarded centralizers and the same statistical tests will be used.

# **Study description**

## **Background summary**

For clinicians, positive clinical tests for identification of lumbar spine instability are indicators for the use of stabilization exercises. However, in our clinical experience these tests frequently become negative after the patient has demonstrated a centralization response assessed with Mechanical Diagnosis & Therapy (MDT). Given that this response is commonly elicited during MDT assessment, it may be that instability tests should be preceded by a MDT assessment to ensure appropriate interpretation. The aim of this study will be to assess the influence of the centralization response on the outcome of instability tests in patients with low back pain.

Design: Observational study

Methods:

Patients will be recruited from a private physical therapy clinic. Each patient will be assessed by two examiners on the same day. The first examiner will conduct a standardized set of tests to identify signs of lumbar spine instability before and directly after a MDT session which is conducted by the second examiner. This second examiner will classify each patient as a centralizer or non-centralizer. The assessments of instability tests and the MDT assessment will be conducted independently and the examiners will be blinded to each other's results. At least 100 patients will be included. The differences between pre-test and post-test results on the instability test will be described in percentages and via X2 tests for the two groups (centralizers and non-centralizers). Analyses will be performed to investigate whether selected baseline characteristics have an influence on the outcomes.

The present study will contribute to our knowledge about the influence of MDT, and more specifically the centralization response, on clinical lumbar spine stabilization measures in patients with low back pain.

## **Study objective**

For clinicians, positive clinical tests for identification of lumbar spine instability are indicators for the use of stabilization exercises. However, it is our clinical experience that these tests frequently become negative after the patient has demonstrated a centralization response

assessed with Mechanical Diagnosis & Therapy (MDT). Given that this response is commonly elicited during MDT assessment, it may be that instability tests should be preceded by a MDT assessment to ensure appropriate interpretation. The aim of this study will be to assess the influence of the centralization response on the outcome of instability tests in patients with low back pain. We hypothesize that the number of positive tests will reduce in patients whose pain centralizes, but that this will not be the case for patients who do not centralize.

## **Study design**

NA

## **Intervention**

Patients will be recruited from a private physical therapy clinic. Each patient will be assessed by two examiners on the same day. The first examiner will conduct a standardized set of tests to identify signs of lumbar spine instability before and directly after a MDT session which is conducted by the second examiner. This second examiner will classify each patient as a centralizer or non-centralizer. The assessments of instability tests and the MDT assessment will be conducted independently and the examiners will be blinded to each other's results. At least 100 patients will be included.

## **Contacts**

### **Public**

Van der Boechorststraat 7  
A. Apeldoorn  
EMGO+ Instituut, VUmc  
Amsterdam 1081 BT  
The Netherlands  
+31 (0)20 4446011

### **Scientific**

Van der Boechorststraat 7  
A. Apeldoorn  
EMGO+ Instituut, VUmc  
Amsterdam 1081 BT  
The Netherlands  
+31 (0)20 4446011

## **Eligibility criteria**

## Inclusion criteria

Low back pain (LBP) as primary complaint, with or without associated leg pain, age over 17 years, and able to read and write Dutch

## Exclusion criteria

known or suspected specific LBP (e.g., cauda equina compression, fractures), severe radiculopathy, spondylolisthesis (grade 2 or more), serious co-morbidity (e.g., metastases, AIDS, cerebrovascular accident), psychopathology, currently pregnant or given birth in the past three months, lumbar spinal surgery in the previous 6 months, increase of pain due to clinical instability tests by the first examiner or inability to demonstrate any LBP symptoms during mechanical examination

## Study design

### Design

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

### Recruitment

NL	
Recruitment status:	Pending
Start date (anticipated):	01-01-2013
Enrollment:	100
Type:	Anticipated

## Ethics review

Positive opinion	
Date:	03-11-2013

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	NL4100
NTR-old	NTR4246
Other	: METC VUmc 2013/16, WC2013-025
ISRCTN	ISRCTN wordt niet meer aangevraagd.

## Study results

### Summary results

N/A