

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

Gepubliceerd: 03-11-2013 Laatste bijgewerkt: 18-08-2022

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...

<b>Ethische beoordeling</b>	Positief advies
<b>Status</b>	Werving nog niet gestart
<b>Type aandoening</b>	-
<b>Onderzoekstype</b>	Observationeel onderzoek, zonder invasieve metingen

## Samenvatting

### ID

NL-OMON24740

### Bron

NTR

### Aandoening

centralization phenomenon  
low back pain  
stability tests  
centralisatiefenomeen  
lage rugpijn  
stabiliteitstesten

### Ondersteuning

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

**Overige ondersteuning:** International Mechanical Diagnosis and Therapy Research Foundation  
[www.imdtrf.org](http://www.imdtrf.org)

### Onderzoeksproduct en/of interventie

## **Uitkomstmaten**

### **Primaire uitkomstmaten**

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.

## **Toelichting onderzoek**

### **Achtergrond van het onderzoek**

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.

### **Doel van het onderzoek**

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.

## **Onderzoeksopzet**

NA

## **Onderzoeksproduct en/of interventie**

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.

## **Contactpersonen**

### **Publiek**

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

### **Wetenschappelijk**

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

## Deelname eisen

### Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

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

### Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

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

## Onderzoeksopzet

### Opzet

Type:	Observationeel onderzoek, zonder invasieve metingen
Onderzoeksmodel:	Anders
Toewijzing:	N.v.t. / één studie arm
Blinding:	Enkelblind
Controle:	N.v.t. / onbekend

### Deelname

Nederland	
Status:	Werving nog niet gestart
(Verwachte) startdatum:	01-01-2013
Aantal proefpersonen:	100
Type:	Verwachte startdatum

## Ethische beoordeling

Positief advies

Datum: 03-11-2013

Soort: Eerste indiening

## Registraties

### Opgevolgd door onderstaande (mogelijk meer actuele) registratie

Geen registraties gevonden.

### Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

### In overige registers

Register	ID
NTR-new	NL4100
NTR-old	NTR4246
Ander register	: METC VUmc 2013/16, WC2013-025
ISRCTN	ISRCTN wordt niet meer aangevraagd.

## Resultaten

### Samenvatting resultaten

N/A