

## **Abstract**

### **Objective**

A clinical study analysed the effect of using a traction-bed-device (Movento) on patients suffering from osteoarthritis/spondylarthrosis of the lumbar spine.

### **Design**

The study was performed as a multicentric, double-blind, randomised, controlled interventional study. The patients were treated over three weeks while staying in rehabilitation clinics. All patients received the standard physiotherapeutic treatment, and the intervention group additionally received a minimum of five hours of traction therapy per night.

### **Methods**

110 patients between 40 and 75 years of age with a diagnosed osteochondrosis/spondylarthrosis with chronification stadium 1 and 2 according to Gerbershagen were enrolled in the study. Both study groups received conventional rehabilitation therapy. The intervention group additionally received therapy with the Movento traction device. The therapy is based on the unloading and loading of spinal tissue. The device projects the traction force via an electric motor, the slatted frame and the mattress onto the patients' body only coupled by gravity. The duration of the treatment was limited to a minimum of 5 hours and a maximum of 8 hours.

### **Results**

The intervention group was able to show significantly better results in the NRS, the Roland-Morris Questionnaire, the PILE-Test, the morning start-up time and the Finger-Floor-Distance measurement.

# Wirksamkeitsanalyse nach MDR ISO 14155/2020

Mai 2021 bis Januar 2023 | **110 eingeschlossene Patienten**

Anwendung mindestens 5 Stunden täglich über 3 Wochen

**Prüfgruppe:**                    **Physiotherapie + Movento System**

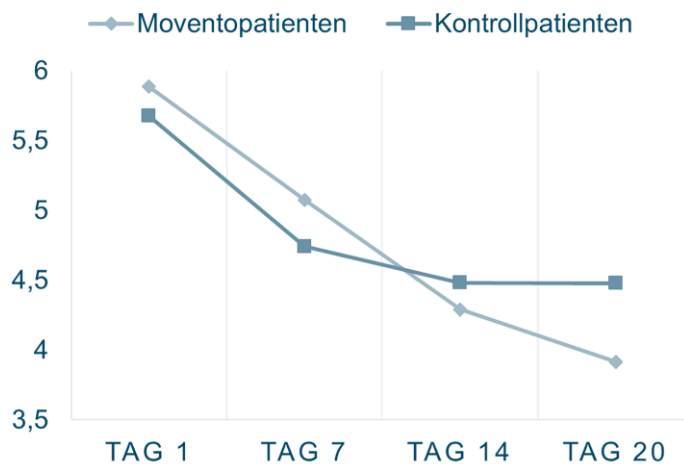
**Kontrollgruppe:**                **Physiotherapie + Placebo System**

## Primärer Endpunkt:

- **Schmerzreduktion** (numerischen Schmerzskala NRS)

## Sekundäre Endpunkte:

- **Reduktion der Funktionseinschränkung** durch Schmerz (Roland and Morris Score)
- Test der **Beweglichkeit** sowie der Maximalkraft (PILE-Test)
- Reduktion der Anlaufzeit am Morgen (Differenz der Anlaufzeiten)
- Physiologische Verbesserung (Finger-Boden-Abstand)
- Steigerung der Lebensqualität (Gesamtscore mit Subskalen)



## Schmerzreduktion

10 = Starker Schmerz

0 = Kein Schmerz