

SUMMARY OF SELECTED FINDINGS

USE OF LUMBAR MEDICAL PRODUCTS FOR THE PREVENTION OF RECURRING LOW BACK PAIN IN HOME CARE WORKERS

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INTRODUCTION

Pain in the lumbar area of the back is a huge problem for many people. It can lead to tremendous costs for the health system, absenteeism and even an inability to work. Prevalence ranges from 15 to 40 per cent among the general population, and from 44 to 72 per cent among care workers.

Many employees, in particular those whose tasks put a lot of physical strain on their bodies, use lumbar medical products to treat low back pain, for prevention as well as for rehabilitation [Dillingham 1998].

The objective of this study was to determine the therapeutic effectiveness of lumbar supports and orthoses by way of a controlled, randomized long-term survey. Medical products from a total of 183 domestic care therapists were examined because people from this occupational group are particularly prone to back pain.

STUDY DESIGN

Prospective, randomized, controlled cohort study

METHODOLOGY

Mean test subject characteristics:

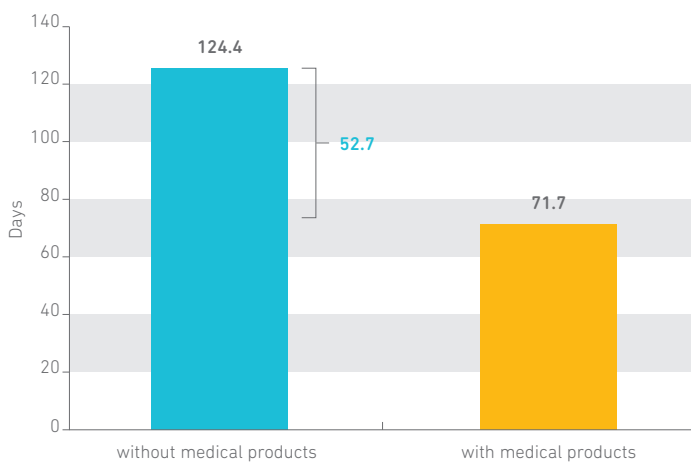
	With lumbar support:	Control group:
Subjects (n)	183	177
Gender distribution	98% female, 2% male	97% female, 3% male
Age	41.8	41.5
BMI	26.6	27.1
Low back pain*	4.7	4.7
Back invalidity**	29.6	30.7
Radicular lumbar syndrome (n)	44	44

* Average pain before inclusion in study, on a scale from 0, meaning no pain, to 10, meaning severe pain

** Average back invalidity before inclusion in study, on a scale from 0, meaning no invalidity, to 100, meaning total invalidity

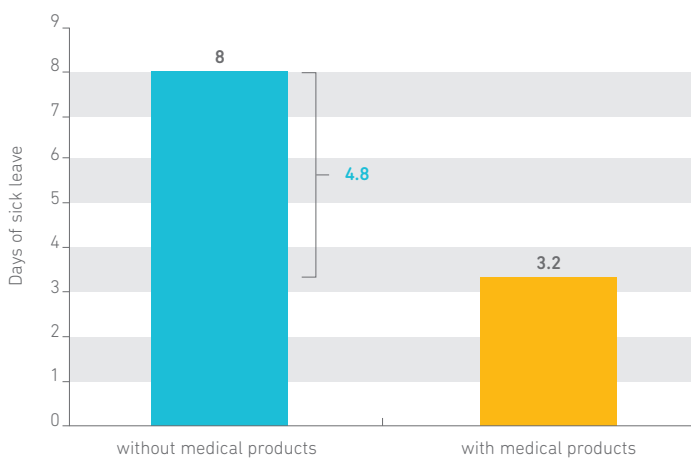
Study duration:	twelve months
Medical products:	LumboTrain Lady, LumboTrain, LordoLoc, LumboLoc
Data analysis:	variance analysis with a significance level of 5 per cent
Inclusion criteria:	employees of a home care service in Rotterdam non-specific back pain in the past twelve months
Exclusion criteria:	pregnancy people taking blood pressure medication low back pain attributable to a specific condition (e.g. rheumatoid arthritis)
Outcome measurements:	number of days per month with low back pain days of sick leave in twelve months severity of back pain (scale from 1 to 10) functional status (Quebec Back Pain Disability Scale)

Number of days with back pain per year



Significant reduction in number of days with back pain per year by wearing a lumbar support or orthosis
On average, this means **52.7** fewer days of pain per year.

Days of sick leave related to back pain per year



Significant reduction in days of sick leave caused by back pain per year, thanks to wearing a lumbar support or orthosis
On average, this means **4.8** fewer days of sick leave per year.

DISCUSSION

The study shows that the use of lumbar medical products can reduce low back pain in home care workers. This type of medical product resulted in around five fewer days of back pain per month, representing a clinically relevant reduction of 45 per cent compared with the control group. Days of sick leave caused by back pain decreased by 60 per cent. All other outcomes measured also demonstrated benefits of lumbar medical products compared with the control group.

These findings are confirmed by an uncontrolled project study which also examined home care workers with frequent episodes of low back pain. When lumbar medical products were used, a reduction in pain intensity by 45 per cent and a reduction in pain-related inability to work by 44 per cent was reported [Jellema 2002]. The preventative use of lumbar supports by warehouse staff also resulted in less sick leave caused by work-related injuries [Walsh 1990].

CONCLUSION

The study clearly shows the effectiveness and benefits of medical products in cases of low back pain.

It is therefore recommended for staff with physically strenuous work who suffer from back pain to wear a lumbar support or orthosis for prevention as well as for rehabilitation in order to improve personal circumstances.

REFERENCES

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- [2] Dillingham TR: Lumbar supports for prevention of low back pain in the workplace. *JAMA.* 1998;279:1826-8.
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