

# Spinomed®

## active against Osteoporosis

- improves posture
- helps strengthen the trunk and back muscles
- improves quality of life.



### Spinomed®

The back brace **Spinomed®** consists of an aluminium back support, which is malleable (in cold condition) and is thus adaptable to each individual patient's spinal curvature. The strapping system with velcro closing, can also be adjusted to meet the individual trunk measurements. The back-pack principle guarantees an **easy application**.

The fact that the aluminium back support is situated alongside the spine from the sacrum to the upper thoracic region, allows for an **even pressure distribution along the back**.

The strapping around the hip area stabilises the lumbar spine. The strapping around the shoulder area stimulates the body to gently pull the shoulders backwards. The latter effect stretches the thoracic muscles and strengthens the back muscles. Instead of a forced, passive posture, the patient gains and receives an **active muscle training** due to the bio-feedback system. The patient himself is actively responsible for the straightening up of his posture.

Pressure on the Sternum and Symphysis, as usually exerted by 3 - point orthoses, is avoided which is particularly advantageous for patients with acute fractures.

In the course of a prospective, controlled cross-over study - made in Germany, publication to come - the appliance of the **Spinomed®** proved to increase the trunk muscle strength, to decrease the degree of kyphosis, to improve the body's stability, to reduce the patients pain and limitations of daily living.

**Spinomed®** is mainly used in cases of acute osteoporotic fractures.

### Spinomed® active

This orthopaedic device is based on the established principle of **Spinomed®**. It consists of a textile component surrounding the trunk and an aluminium back support. The textile component itself already **supports the posture** due to the **integrated straps** exerting pull forces. The aluminium back support, in bent condition, can be slid in to the pocket on the dorsal side. It cannot lose its position and stimulates an additional muscle training. This combination provides a **permanent bio-feedback**.

**Spinomed® active** is used for patients with manifest Osteoporosis with a stable fracture condition.

### functional therapy

Within the medical and healthcare industry times are changing and so are opinions. Patient care is now undoubtedly at the forefront of today's medical and surgical treatments, with particular attention being paid to

- prevention - as a best case scenario,
- therapy - patient care with highest priority,
- post-operative care - a necessary focus

In this respect, **'functional therapy'** focuses on the patient's prompt return to 'activity' not only after trauma, but also in the case of degenerative diseases like osteoarthritis and osteoporosis.

**'functional therapy'** promotes freedom - the freedom to be active.

**medi.ortho** has therefore developed an 'intelligent' functional therapy product range, designed to treat the deficiencies in our 'locomotion system' with specific emphasis being placed on joint function, treatment, protection and rehabilitation.

**medi.ortho's** goal is to introduce and establish one further element to the surgical, physical, pharmaceutical and physiological therapies of modern day comprehensive medicine.

**'functional therapy'** with braces and supports provides one

element of a successful, overall treatment and rehabilitation of patients.

Comfort while wearing, ease of use and functionality decide the success. In close co-operation with doctors and orthopaedic technicians, **medi.ortho** has developed innovative products and products concepts, which - depending on the goal of the therapy - are effective in:

- supporting and improving mobility,
- unloading damaged joint areas,
- securing joint functions,
- reassuring and activating the patient.

this is our motto.

### Current osteoporosis therapy principles

Current medical treatments for spinal osteoporosis include the use of Calcium, Vitamin D and Bisphosphonates, all of which are proven to significantly reduce the risk of vertebral body fractures. However, they cannot completely prevent new fractures from forming.

An already collapsed vertebral body is both lower in height and can cause significant pain for the patient. As a consequence, the mobility and a possible self-sufficiency of the patient is very often limited. After all, the preservation of patient **mobility** and self-sufficiency receives highest attention within patient therapy and rehabilitation regimes.

The improvement of mobility and patient's activity has had the main priority in the latest developments of the orthoses **Spinomed®** and **Spinomed® active**. They are therefore specially designed to the needs of patients suffering from spinal Osteoporosis and vertebral body fractures.

### active – for a better posture

**Spinomed®**'s special design provides relief for the fractured vertebral bodies as well as a stabilisation of the entire spine. The **reduction of the thoracic kyphosis** also results in a **straightening of the trunk**.

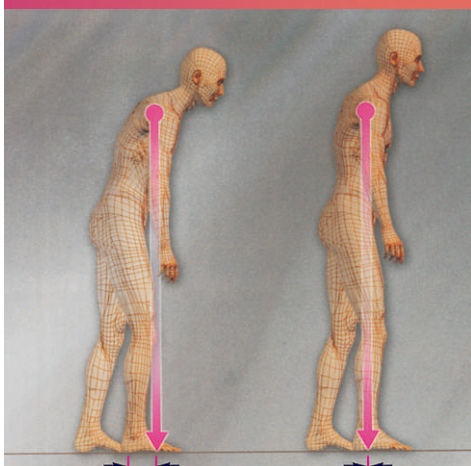
### active – for stronger muscles

The bio-feedback induced training - based on a daily use of approx two hours - will **strengthen the patients trunk muscles** and hence, after a few weeks of use will start to **correct the patients posture**.

### active – for improved quality of life

The continued use of **Spinomed®** will help **reduce the patients pain**, offer him an improved quality of life and **more active lifestyle**.

### Quick and painless mobilisation due to the bio-feedback system



**Spinomed®** brings the body's gravity point backwards and hence significantly reduces the risk of falls.



More quality of life!



# The effects of a newly developed spinal brace on posture, trunk muscle strength and quality of life in women with postmenopausal osteoporosis

A randomised study : American Journal of Physical Therapy & Rehabilitation 2004; 83:177-186.  
Authors: Michael Pfeifer, MD; Bettina Begerow, PhD; Helmut W. Minne, MD

## Objective



One quarter of the over-50s in the population suffer from at least one vertebral fracture with osteoporosis. Until now, orthotic care of these spinal fractures has been based entirely on the subjective experience of the attending physician, because no objective data from clinical studies has been available. The objective of this study was to demonstrate the efficacy of the newly developed back brace "Spinomed®" in patients with osteoporotic spinal fractures.

## Results

Wearing the back brace over a period of 6 months led to a 73% increase in the strength of the back muscles, a 58% increase in the strength of the abdominal muscles, an 11% reduction in the kyphosis angle, a 25% reduction in body sway, a 7% increase in vital capacity, a mean reduction in pain of 38%, a 15%

## Conclusions

Use of the Spinomed® back brace leads to increased back muscle strength, thereby improving the posture of patients with osteoporotic vertebral fractures. In addition, the patient's quality of life is improved through reduction of pain, fewer limitations in everyday activities, and increased wellbeing. Thus, wearing the Spinomed® back brace represents an effective, non-pharmacological treatment option for osteoporosis of the spine.



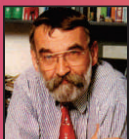
Typical vertebral fractures that lead to hyperkyphosis in osteoporosis

Study can be requested from: [spinomed@medi.de](mailto:spinomed@medi.de)



"It has been shown that a course of treatment with the Spinomed® back brace leads to a very rapid and very marked increase in the whole of the back musculature."

Dr Michael Pfeifer, Study Director, "Der Furstenhof" Clinic, Bad Pyrmont



"Spinomed® is the only brace that has been investigated scientifically to date and whose mechanism of action has been proven."

Prof. Helmut W. Minne, "Furstenhof" Clinic, Bad Pyrmont



"Spinomed® active helps patients because there is widespread acceptance of this medical aid and patients understand the treatment concept."

Florian Korte, Surgical Accessories retailer, Syke



"I wouldn't want to be without my Spinomed® brace; it has given me back my joy of living. I Can walk more upright, I can look straight ahead and I can breath in more deeply because my chest isn't constricted."

Margarete Schlingmann, patient



## Sole Importers & Distributions in INDIA

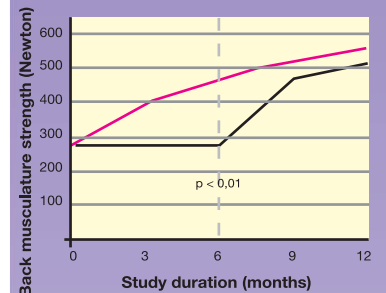
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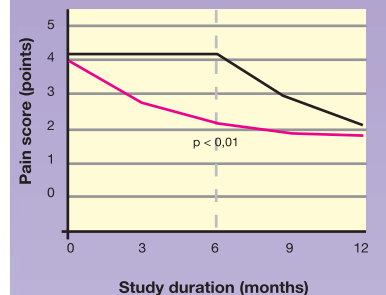


## functional therapy

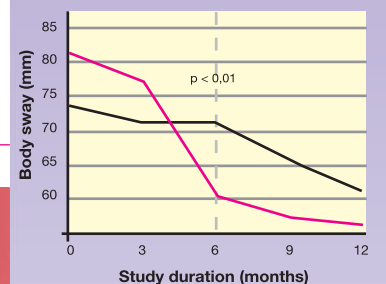
### Back musculature



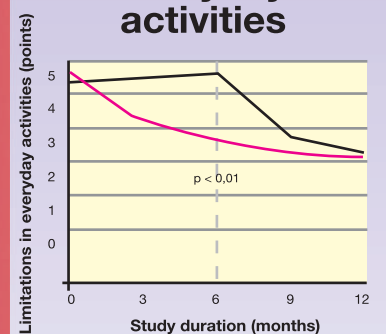
### Pain score



### Body sway



### Limitations in everyday activities



Intervention group  
Control group

### Sizing Chart

Size	Back Length (cm)
x-small	37-44
small	44-51
medium	49-56
large	55-61

measurement : from the sacrum to just below C7 following the spinal curvature