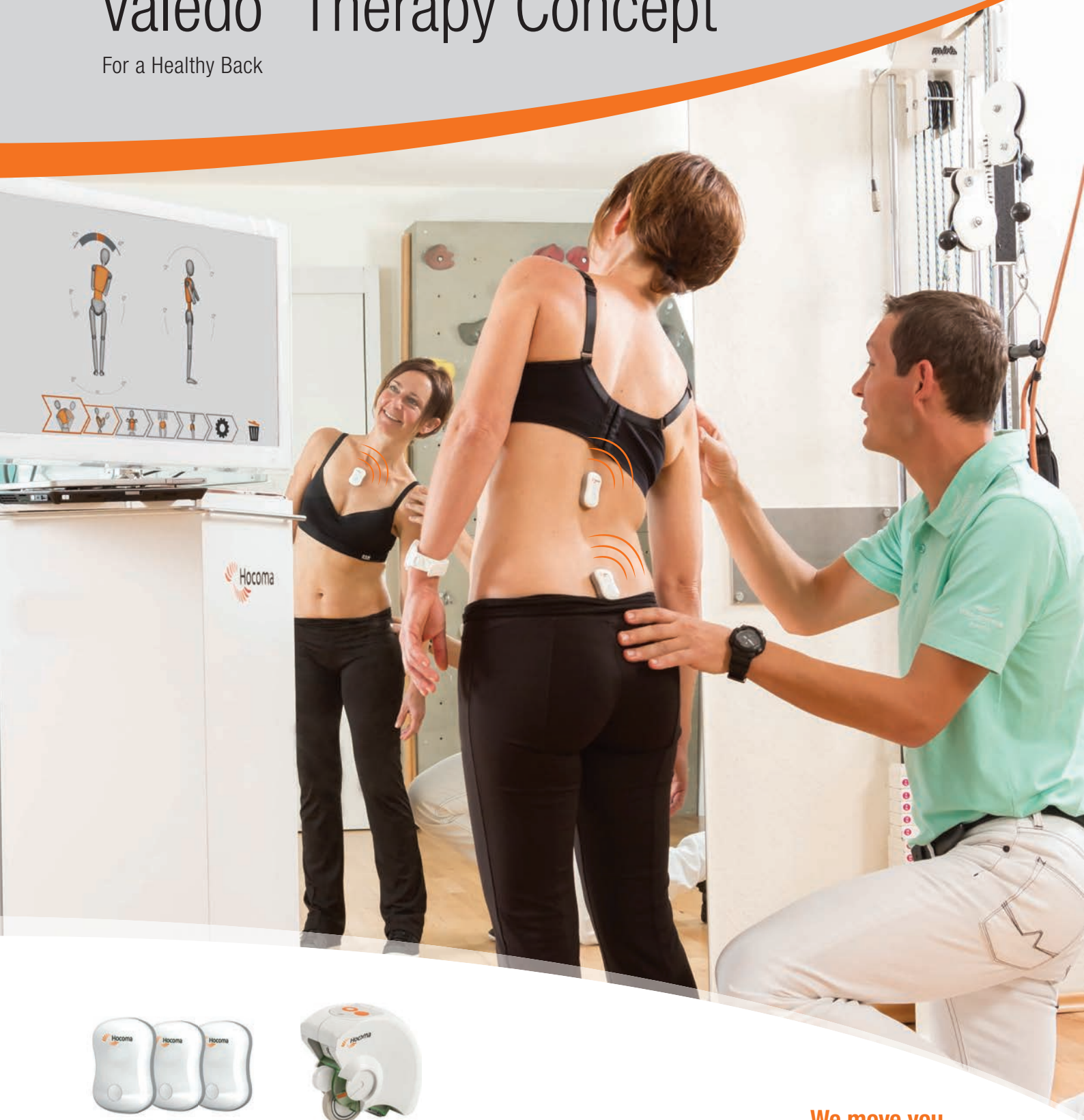


Valedo[®] Therapy Concept

For a Healthy Back



We move you

Back pain is one of the most common health conditions, affecting more than 80 % of the population at least once in their life. Exercise therapy is a recommended treatment approach, with intensity and patient compliance playing an important role. Thus, an understanding of the patient's individual situation and deficit of movement is essential for providing successful back pain therapy.





Patient Story

Marian Keller – Regaining her Zest for Life

After reading about the Valedo in a Swiss magazine, Marian Keller decided to find a clinic that offered this therapy in her proximity. "I was diagnosed with Multiple Sclerosis 38 years ago," Marian explains. "Over the years I acquired some very poor movement patterns. I had difficulties walking and always had to plan accordingly when I was going somewhere I didn't know." After training with the ValedoMotion once a week for a month at Wilbert Derksen's clinic in Rorschach, Switzerland, Marian noticed some major improvements. "I not only improved my mobility, but also my zest for life! I have more energy now, and my everyday routine is much easier."

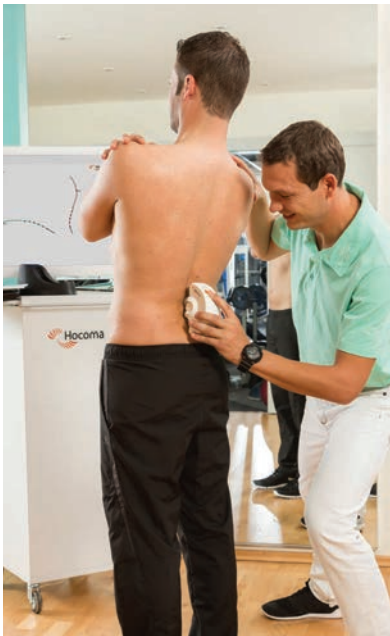
Motivated by the therapy and improvement she sees and feels, Marian looks forward to continuing therapy with the Valedo at home. "I tried so many different types of therapy and it was always very stressful for me. With the ValedoMotion, I not only changed the way I move, but also the way I see and feel my body. It's fantastic!" (Read more on page 14.)

Valedo® Therapy Concept

The ValedoShape, ValedoMotion and Valedo are complementary products for a healthy back and offer a continuous solution from spine assessment to therapy in the clinic and at home. The Valedo Therapy Concept is the ideal addition to back pain treatment, offering clinical assessments and functional exercise training.

At the Clinic

At Home



Valedo®Shape

- Precise Assessment of the Spine
- 3D Visualization of Spinal Shape and Mobility
- Monitoring of Therapy Progress
- Individual and Relevant Treatment Planning



Valedo®Motion

- Clinical Assessments and Reporting
- Customized Therapy Plans
- Accurate Real-Time Feedback
- Motivating Exercises
- Treat More Patients



Valedo®

- Improved Compliance and Motivation for Training at Home
- Safe Training at Home by Detecting Incorrect Movements
- Performance Feedback, Progress Tracking and Data Sharing
- Possibility of Additional Revenue with the Valedo Business Model

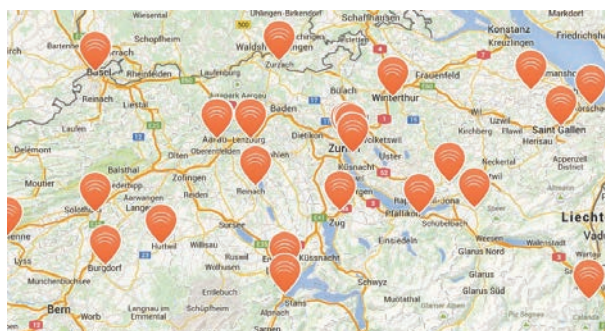


Advantages for Therapists

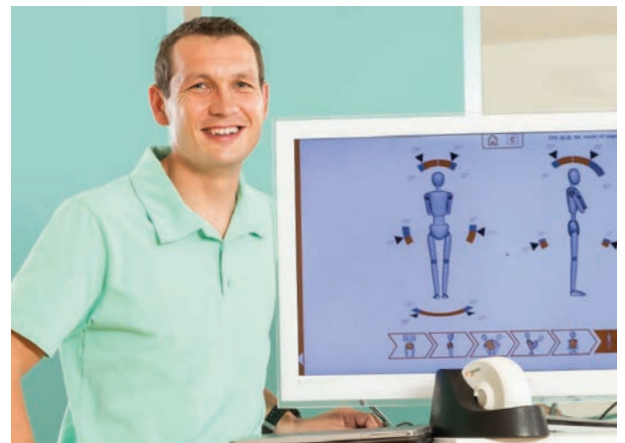
Therapists appreciate the effective therapy concept that runs from assessment to treatment. The clinical assessments and automated reporting enable them to objectively track and document the progress of the therapy while the improved teaching functionality helps to educate correct movements. Furthermore, the concept offers tools to track and monitor the patient's therapy compliance at home. With the modern and motivating Valedo Therapy Concept, therapists can attract and treat more patients and create new business opportunities.

Advantages for Patients

The Valedo Therapy Concept supports patients in reaching their therapy goals by increasing their motivation and compliance with the therapy. The engaging therapeutic environment encourages and motivates patients to achieve a higher number of repetitions while ensuring correct and safe movements. By training the movements more frequently and with a higher intensity, patients can actively maximize their therapy potential. Visualizing and documenting the therapy progress helps them understand the therapy goals, thereby improving their compliance and motivation.



Reach more patients by adding your clinic to our global Valedo Therapy Concept database at www.valedotherapy.com.



Expert Opinion

Kevin Eisele, PT

"As the accurate sensors of the Valedo Therapy Concept capture even the smallest movements, the feedback for our patients is excellent. As a result, the ValedoMotion is a huge communication aid when practicing, carrying out and measuring the effectiveness of more precise movements. The documentation and reporting functionality visualizes the progress of the therapy. This enables us to explain the goals and therapeutic measures to patients in a clear and concise manner. By understanding these aims, the patients are more motivated and adhere to the therapy and exercises more closely."

Kevin Eisele; PT and owner of Reha-Zentrum Schwäbisch Gmünd, Germany

Valedo[®]Shape – Spinal Analysis

The ValedoShape is a non-invasive assessment device for providing an accurate analysis of the spine. It documents the therapy progress rapidly and precisely, which is crucial for deciding on a suitable and efficient course of therapy.

How it Works

A professional assessment before, during and after treatment is necessary for providing the basis for a suitable and efficient therapy planning. The ValedoShape offers an easy and reliable way to determine the mobility of each individual spinal segment. When guided along the spinal column, it automatically adjusts itself to the contours of the back and transfers the data to the software that visualizes the spinal shape.

Precise Assessment of the Spine

The ValedoShape offers excellent reliability and a high degree of data validity when compared to X-ray images.¹ The changes and progress made during the course of treatment become apparent and provide the basis for a suitable therapy planning.

3D Visualization of Spinal Shape and Mobility

The assessment includes the sagittal and frontal plane of the spine and visualizes the results in demonstrative and descriptive 3D graphics. The visualization is easy to understand and supports the therapist's communication with the patient.



Product Overview

Features and Functions

Precise Assessment of the Spine

Fast, non-invasive measurement with excellent reliability and high degree of validity.

3D Visualization of Spinal Shape and Mobility

Easy-to-understand visualization of the spinal shape improves the communication with patients.

Monitoring of Therapy Progress

Automatic documentation and comparison with normative data enable an objective analysis of the patient's therapy progress.

Individual and Relevant Treatment Planning

Detailed assessment data of sagittal and frontal plane enables therapy planning to be tailored to each patient individually.

¹ Mannion AF, Knecht K, Balaban G, Dvorak J, Grob D. A new skin-surface device for measuring the curvature and global and segmental ranges of motion of the spine: reliability of measurements and comparison with data reviewed from the literature. Eur Spine J. 2004 Mar;13(2):122-36.

Monitoring of Therapy Progress

The ValedoShape records data in a patient-friendly and non-invasive way without using any radiation or other invasive procedures. The automatically stored documentation and comparison with normative data enable an objective analysis of the patient's therapy progress.

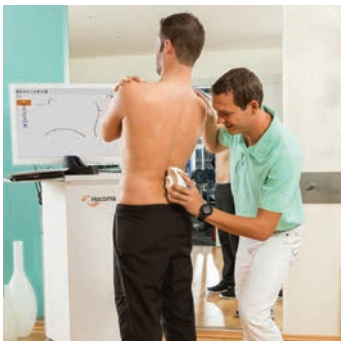
Support in Therapy Planning

The possibility of regular assessments and the objective analysis of the therapy progress provide a basis for clinical decision making. The therapist has all the necessary data available and can thus derive an individual and meaningful course of therapy. Any further therapy can be specifically tailored according to the patient's needs and progress.

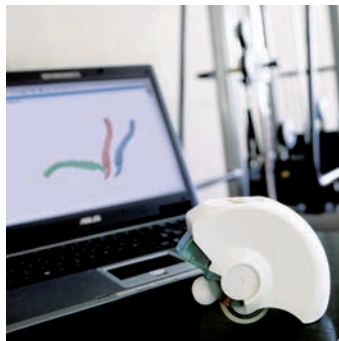


It's as easy as 1, 2, 3

1 Assessment



2 Visualization



3 Documentation



A photograph of a woman with short brown hair, wearing a bright blue jacket with white stripes on the sleeves, smiling and looking up at a man. The man has short brown hair and is wearing a light green polo shirt and white trousers with a black belt. He is also smiling and looking down at the woman. They appear to be in a clinical or office setting. An orange text box is overlaid on the bottom left of the image.

Patient Story

Isabell Eisele – Chronic Back Pain

Isabell's congenital spondylolisthesis was causing her some pain but not enough to influence her active life or her daily routine as a therapist. But after suffering two herniated spinal discs in 2013, Isabell experienced severe restriction in her mobility due to pain in her lower back. "I couldn't walk or stand without feeling a radiating pain," she says. "I wasn't able to do therapy sessions with my patients while standing any longer or go running, which is my main hobby."

At a medical fair, her husband and physiotherapist, Kevin, learned about the ValedoMotion and decided to try the therapy with Isabell. "With the ValedoMotion I can target a specific movement and concentrate on improving it," says Isabell. She felt an improvement after every single session and this gave her motivation an additional boost. "This sustainable progress is essential for lower back pain therapy, as it keeps the patient going," she says. Isabel is now able to run more than 3 km without feeling any pain.

Valedo® Motion – Motivating Therapy at the Clinic

The ValedoMotion enhances back therapy using innovative sensor technology. It assists therapists in improving their patients' motor control and movement awareness. The ValedoMotion is developed with leading clinical partners and validated by research.

How it Works

Wireless sensors attached to the patient's skin transfer even the smallest movements of the trunk and pelvis into a motivating game-like environment. The visualization of movements in real-time provides excellent feedback to patients and therapists and supports the education of correct movement patterns.

The exercises of the Augmented Performance Feedback were designed to train specific therapeutic goals such as stabilization, mobilization and movement awareness. To always ensure a challenging and efficient training, they can be adjusted to the patient's current needs and abilities.

The ValedoMotion software captures the patient's movements and training activity and provides documentation about the therapy progress. With this documentation, therapists can tailor the therapy to each patient individually and plan future therapeutic measures according to the patient's personal progress. Therapy with the ValedoMotion is therefore suitable for a wide range of patients. It includes non-specific back pain as well as general muscular deficits of the trunk, malalignment of the spine (e.g. kyphosis, scoliosis) or neurological conditions such as stroke, Multiple Sclerosis or Parkinson's disease.

Clinical Background

The ValedoMotion was developed in collaboration with the team led by Prof. Dr. Jan Kool at Zurich University of Applied Sciences in Winterthur, Switzerland. The product development builds on close cooperation with leading clinics and hospitals worldwide and is based on current results in medical research.



Product Overview

Features and Functions

Clinical Assessment and Reporting

Assessment Tools enable an objective analysis and automatic documentation of the patient's therapy progress.

Customized Therapy Plans

Individually adjustable therapy plans, range of motion and difficulty levels ensure the most effective therapy.

Accurate Real-Time Feedback

Precise feedback facilitates education of correct movements and improvement of the patient's movement awareness.

Motivating Exercises

Exciting, game-like Augmented Performance Feedback exercises increase the patient's motivation and effort.

Treat More Patients

Therapists can supervise more than one patient at a time, ensuring best use of their clinical know-how and expertise.

Back Therapy in Motion

The ValedoMotion is a medical back training device that offers functional and motivating exercises for an improved therapy outcome. Individual therapy plans, relevant assessments, motivating exercises and visualization of movements help the therapist educate correct movements and improve the patient's movement awareness.

Clinical Assessment and Reporting

The movements recorded by the ValedoMotion and the quantitative assessments of movement dysfunction provide a better insight into patient's physical complaints. Based on this information about movement quality and performance, the therapist can tailor the course of therapy to each patient individually. Precise and repeatable measurements enable an objective analysis and documentation of the patient's therapy progress in a standardized way.

Customized Therapy Plans

With the ValedoMotion, the therapist can create individual therapy plans with relevant assessments and exercises depending on the patient's needs and abilities. The individual range of motion, difficulty levels and other parameters can be easily adapted for a most effective therapy.

Accurate Real-Time Feedback

The ValedoMotion gives the patient and therapist immediate and constant feedback on movements performed by the patient. This visualization helps the therapist educate correct movements and thus improve the patient's movement awareness.

Motivating Exercises

The ValedoMotion offers a wide range of motivating therapeutic exercises with Augmented Performance Feedback. Patients are motivated to practice goal-oriented movements in a game-like environment, which improves the intensity of the therapy. The exercises are designed for specific therapeutic goals, such as stabilization, mobilization and movement awareness. They can be carried out in different training positions – such as standing, sitting, four-point kneeling or plank position – and can be combined with additional training equipment. The ValedoMotion exercises support step-by-step learning from simple to complex movements.



Expert Opinion

Rachel Gross, PT

"The ValedoMotion provides real-time visual and audio feedback showing patients whether they are performing exercises correctly. Several patients report feeling muscle soreness the next day, and experience progress in working muscles that have been previously ignored. As therapists, we offer corrections and customize the therapy according to the patient's needs, abilities and goals. The ValedoMotion is a great motivational tool. Our patients now look forward to their therapy sessions and work harder to improve their previous performance."

Rachel Gross; PT, DPT, OCS at Oregon Health & Science University, USA

Treat More Patients

Depending on the patient's needs and abilities, the therapist can use the ValedoMotion one-to-one or as a self-guided course of therapy after providing the necessary training to the patient. The ValedoMotion thus increases therapy efficiency by giving the therapist the option of supervising more than one patient at a time and optimizing the application of their clinical know-how and expertise.



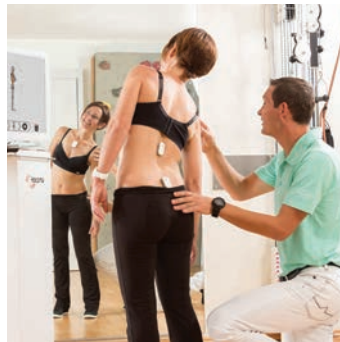
Group therapy with the ValedoMotion at the Reha-Zentrum in Schwäbisch Gmünd, Germany.

It's as easy as 1, 2, 3

1 Start software & apply sensors



2 Perform assessments & exercises



3 Analyze the progress



Valedo® – Training at Home

Valedo is an ideal and reliable tool for enhancing the treatment of patients suffering from back pain. The effective and motivating exercises improve patient compliance, and the mobile and portable design allow patients to complete exercises at home, work and even when traveling.

Easy to Use

The Valedo is a registered medical device that consists of two wireless movement sensors, medical attachment tape and a charging cable in a portable case. The Valedo set weighs just 250 grams and can be used anywhere. It takes only seconds to set up to provide a fun, effective and uncomplicated training experience – whether at home, at the office or while traveling.

The two sensors are attached to the chest and lower back and connect to an iPad or iPhone via the latest Bluetooth technology. After downloading the software free of charge from the App Store, patients enter a virtual world and can direct their avatar through interactive and fun landscapes by performing specific movements incorporated into numerous motivational therapeutic exercises. All movements and exercises target one or a combination of therapeutic goals and are based on proven and certified back treatment programs that are transferred into Valedo by movement scientists, therapists, physicians and engineers.

The Valedo keeps track of the development and progress of the patient's training and presents it in an easy-to-read report. All information about movement quality and performance is recorded in the report, thus enabling greater insight into the quality and quantity of the training and the compliance of the patient. The performance report can be shared by the patient via e-mail.

Valedo Business Model

As a therapist and medical professional, you can support the back health of your patients by:

- Selling Valedo to your patients
- Providing Valedo for your patients on a hire basis
- Recommending Valedo to your patients

Find out more and contact us for details and the availability of these collaboration opportunities in your country at www.valedotherapy.com/partner.



Product Overview

Features and Functions

Relevant

Designed to target one or a combination of therapeutic goals, including movement awareness, mobilization, isolation capacity, stabilization, and elements of stretching and balancing.

Enabling

Self-guided therapy at home between therapy sessions by progressing from simple to complex movements in a continuous flow and with constant feedback.

Safe & Serious

All movements are based on proven and certified back treatment programs, but Valedo redesigns the exercise experience with therapeutic gaming, patient guidance and detection of incorrect movements.

Motivational & Interactive

Improves patient compliance through therapeutic gaming and follows their performance and progress via data sharing.



With Valedo, you can take an enjoyable, engaging approach to stabilizing your back muscles and improving movement awareness to help prevent and reduce back pain.



Expert Opinion

Dr. med. Patric Gross

"In the treatment of back pain, an integrated therapy concept is essential: exercises with the therapist, as well as at home. The new Valedo concept is especially effective in this regard. It is particularly convenient that you can not only use it at home, but also take it to work or on trips. It is therefore an excellent complementary tool for achieving therapeutic goals between therapy sessions and is an enjoyable way for the patient to understand their body more effectively."

Dr. med. Patric Gross; Chief physician, St. Katharinen Hospital, Diessenhofen, Switzerland

It's as easy as 1, 2, 3

1 Start free software



2 Attach sensors



3 Exercise for back health





Clinical Story

Wilbert Derksen – Successful Integration of the Valedo Therapy Concept

To create the most suitable therapy plan for Marian and his other patients (read more on page 3), Wilbert Derksen plans and discusses the exercises with them beforehand. "The patient can plan the movement and then train as part of the exercises," explains Wilbert. As the patient improves, Wilbert increases the difficulty level to maintain the challenge and the progress. Once they learn the correct movements, the patients can also train at home with the Valedo. "For me as a physiotherapist, it is extremely important that my patients also exercise at home. If they don't, we make very slow progress in remedying their back pain." When he started working with the Valedo Therapy Concept, Wilbert thought the devices would only attract a specific patient group. "I initially thought that this therapy would only be of interest to young male patients. However, I found out that the ValedoMotion and the Valedo are equally suitable and highly motivating for all my patients."

With the Valedo Therapy Concept, he not only motivated his existing patients, but also received many new ones by promoting this therapy. In addition to the therapy at his clinic in Rorschach, Switzerland, Wilbert's patients have the opportunity to rent or buy the Valedo from Wilbert for therapy at home. "Thanks to Valedo, I now have the opportunity to see the type of exercises they do and how often – and I can track their progress. The most motivational aspect is actually seeing their progress with regard to accuracy, fluidity and isolation. Most important is seeing, how much they enjoy training with the software."



Wilbert Derksen is a physiotherapist who successfully uses the Valedo Therapy Concept as part of the daily clinical routine at his clinic in Rorschach, Switzerland.

Easy Integration Into Clinical Routine

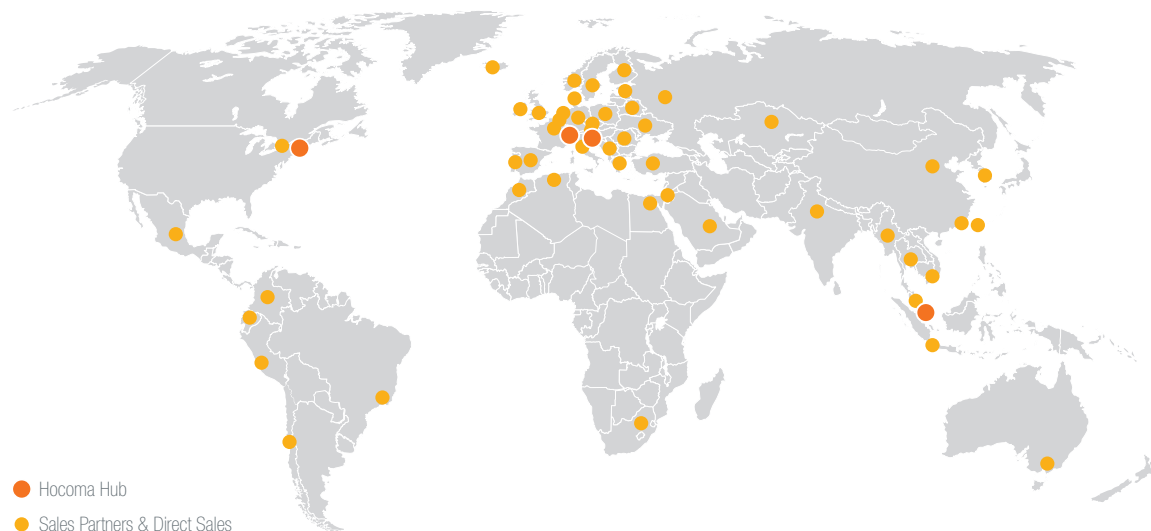
The Valedo Therapy Concept is used by leading clinics in different therapy settings. It offers various products that cover the individual needs of patients, therapists, clinics and hospitals.

Valedo® Therapy Concept – Product Line

The Valedo Therapy Concept is the optimal solution for different therapy settings. It consists of complementary products that are specifically designed to cover different needs of therapists and patients. The table below shows a summary of the main functions. For further information, please contact us or consult the websites www.hocoma.com or www.valedotherapy.com. You will find detailed contact data on the back of this brochure.

		Valedo®Shape	Valedo®Motion	Valedo®
Quantitative Assessments	Precise assessment of the spine	•		
	3D visualization of spinal shape and mobility	•		
	Assessment Tools	•	•	
Therapy Plans	Patient-specific treatment plans		•	
Accurate Real-Time Feedback	Tool supporting education of correct movements		•	
	Feedback on compensatory movements		•	•
Clinically Relevant and Motivating Exercises	Game-like exercises		•	•
	Simple to complex movements		•	•
	Multiple therapy goals and training positions		•	•
Automated Reporting	Clinical report on therapy progress	•	•	basic
	Patient report on exercise performance		•	•

Hocoma is the global market leader providing most advanced solutions for functional movement therapy.



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This information provides details about medical products which may not be available in all countries and may not have received approval or market clearance by all governmental regulatory bodies throughout the world. Nothing herein should be construed as a solicitation or promotion of any product or of an indication of any specific use for any product which is not authorised by the laws and regulations of the country where the reader of this information resides.