



 happyrehab™ 

INNOVAid



*"Through the use of HAPPY  
REHAB my patient has achieved  
increased mobility of the  
ankle and knee joints"*  
- Physiotherapist



## Movement makes the difference

*Increase your range of motion and balance through the use of pioneering technology.*

HAPPY REHAB has created a new paradigm in rehabilitation. The unique dynamic stander is built on interaction between the user and the system, based on the most recent research in the field. The system combines dynamic motor control and cognitive training.

### The HAPPY REHAB system offers:

- Comfortable and natural movements in upright weight-bearing position
- Increased active and passive range of motion
- Improved balance and neuromuscular control
- Motivating and interactive rehabilitation
- Feedback through exercise statistics
- Reduction of expenditures via telerehabilitation
- Promotes circulation

### How does it work?

The user plays specially designed computer games, using specific movements that activate specific muscle groups in the lower extremities. To enhance the effect and maintain motivation, the system provides biofeedback and challenging games/ exercises for the user. The system is adjusted individually to fit each user, in order to achieve optimum results.

The HAPPY REHAB system can be used in habilitation and rehabilitation of individuals with cerebral palsy (CP), acquired brain injuries or other neurological functional limitations, as well as in rehabilitation after surgery.

Let play replace pain!



## Motivational training

Research indicates that training needs to be intensive and last at least 30 minutes a day, if the central nervous system (CNS) is to improve. To maintain such an intense level of training, motivation is essential! With HAPPY REHAB, the exercises/games can be adjusted and adapted, so that they will be continuously challenging and keep the user motivated.

HAPPY REHAB adds a completely new, exciting and motivational dimension to therapy exercises.

# The unique features of the HAPPY REHAB™ system

## Mobility through active stretching

Active stretching means stretching a muscle through activity in its antagonist. Active stretching can be quite difficult for people with CP or other neurological difficulties.

Research indicates that Happy Rehab promotes active stretching which results in increased active and passive joint mobility.

Quite a pioneering result!

## Structure and feedback

Through the MyTRAINER software, the therapist can plan and structure individual training programmes. This assists and motivates the user to carry out a specific and targeted training.

The MyTRAINER element is an important factor in obtaining a successful outcome.

The FOOTPRINTS software is the user's detailed training diary, where parameters such as training time, point scores and other specific training parameters are saved, and can be used to illustrate improvements.

Daily scores and training history diaries can be printed.

## Muscle control and coordination

The ability to activate a muscle at the right time and with the right amount of force needed in the situation is the key to muscle control and coordination.

HAPPY REHAB - with its specially designed Game Software – makes it possible to improve coordination and neuromuscular control by numerous repetitions and visual feedback.

Results from only 10 weeks of training in the HAPPY REHAB show an effect on functions in daily activities such as balance, one-leg balance, walking up stairs etc.

## MOVEment

MOVEment moves the legs in an upright weight-bearing position. This mobilizes the joints in a comfortable and natural way, which is relaxing and promotes circulation. The function can be used separately or integrated into the active training programme, as a part of warm-up, as a break or at the end of training.

MOVEment is a unique function that gives the individual user an increased sense of well-being during training.



# Explore the HAPPY REHAB™ system

## Be Inspired!

Motivating and challenging computer games provide biofeedback for the user.

## Upper support module

With the Upper Support Module, you achieve better support and positioning in the system.

## Fits almost any user

The system can be adjusted in various aspects such as height, width and support positions.

## Use it anywhere

The wheels make it easy to move it from one room to another.

## Safety First!

An emergency stop and internal overload protection ensures safe operation.



# Individualised training with HAPPY REHAB™

## Active stretching of the knee joints

Dynamic leg supports allow for active knee extension/flexion.

## Aktive / Passive movements

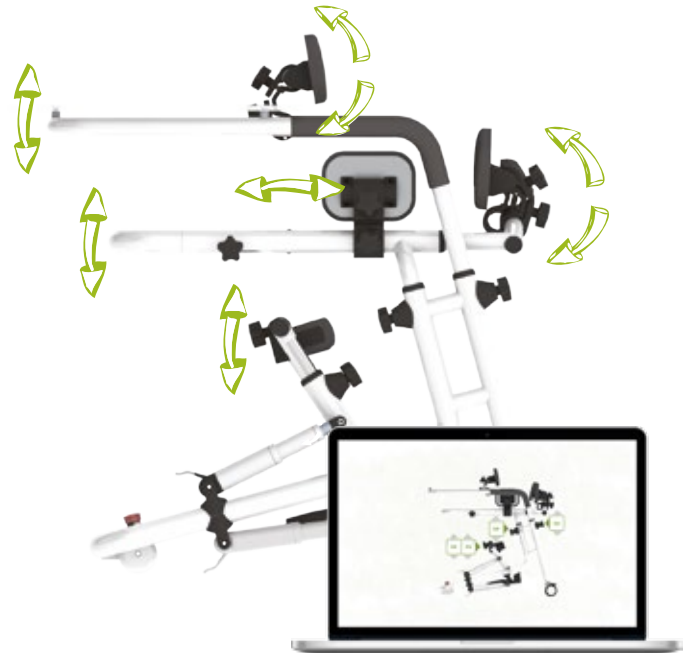
Motors offer assistance in movement of the ankle and knee joints.

## Improve balance and postural control

Tactile force sensors in the foot platforms provide biofeedback and facilitate the user in improving balance and postural control.

## Maintain and improve mobility in the ankle joint

The dynamic foot platforms allow for active plantar-/dorsiflexion.



## Fitting the system for each user

The dynamic stander can be individually adjusted to fit the user in all aspects.

The height of the tray and leg supports can be adjusted easily. The positions of the hip/chest and back support are also adjustable.

The HAPPY REHAB system can be used by a number of different users, or it can "grow with the individual user".

Note: The hip and chest supports are to be ordered separately as "Upper support module".

Each user has his/her own "user profile" containing user data and his/her range of movement, force, favourite training programme etc. Each exercise will then be adapted to fit the individual user.

# HAPPY REHAB™ user groups

## Children and youth with neurological disabilities

HAPPY REHAB is primarily targeted users with cerebral palsy with mild to moderate gross motor functional limitations (GMFCS - E&R I-III (IV)).

HAPPY REHAB can be used as a treatment method for users suffering from “toe-walking”, increased knee flexion or balance problems.

HAPPY REHAB may also be used in rehabilitative training following botulinum toxin (BTX) treatment in the lower extremities, in order to achieve repeated movements.

## Neurorehabilitation

Children, youth and adults who need confidence and standing support during balance training and movements after brain injuries, accidents or other complications can benefit from using the HAPPY REHAB.

## Rehabilitation after surgery

The user can regain mobility of the ankle and knee joints after surgery, as well as activating muscles after plaster casting and immobilisation.

HAPPY REHAB can be adjusted so that the rehabilitation program is specific and adapted to the mobility and muscle strength of the individual user.

## GMFCS Scale



**I** Walks without limitations

**II** Walks with limitations

**III** Walks w. hand held mobility device

**IV** Self-mobility with limitations

**V** Transported in manual wheelchair





# Interactive games makes effective training



## Foundation pack

*Get started with interactive rehabilitation!*

FOUNDATION PACK is the basic package of exercises and games for the HAPPY REHAB® system.

With the FOUNDATION PACK you can get started with interactive cognitive and motor learning and training. Through the introductory exercises, you learn how the system works and reacts to the movements of the body and legs. The package contains dedicated paths, solely focused on movements either on the left or the right side of the body. In addition, FOUNDATION PACK includes weight transfer exercises, where gross motor skills can be trained, simply using weight transfer between the right and left sides of the body.



## Licence options:

- Home (single user)
- Pro (multi user) \*  
Allows more than 100 user profiles.  
\* not available in all regions

# Goal-Oriented Training with HAPPY REHAB™

*The HAPPY REHAB system allows for a goal-oriented intensive training that's structured, challenging and motivating to the user, which is extremely important in any treatment.*

## Movement of the ankle joint

In the HAPPY REHAB system, the user stands on moveable foot pedals and the movements created by plantar-/dorsiflexion of the ankle joint control the games.



The "Toe-Walker" is the typical user of this function, with increased joint mobility and coordination of the ankle as the outcome. Other users with muscle weakness, stiffness or dysfunctions in the ankle and foot will also typically benefit from these exercises.

## Movement of the knee joint

In the HAPPY REHAB system, the leg supports are moveable and the movements created by flexion/extension of the knee joint control the games.



People with "Crouch-gait" will typically use this function, which makes it possible to work on stretching the knee joint. Other users with muscle weakness or dysfunctions of the leg and knee can benefit from this practice.

## MOVEment

In this combined mode, both the foot pedals and leg supports are moveable. The tactile force sensors in the foot pedals control the games.



With this function, combining movement of the ankle and knee joint, various joints can be activated while doing active stretching and working on postural balance.

## Balance

The tactile force sensors in the foot pedals register active weight transfer in all directions.



People with all types of balance dysfunctions may benefit from this function. The user can perform weight transfer exercises (left-right) or practice full balance exercises while standing safely in the HAPPY REHAB stander. A variety of games are available.







*"To our surprise, our physiotherapist also says that Elise Mathilde's joint range of movement has measurably improved, that is, she has better flexion of the ankle. That's really fantastic", says mum.*

## Elise Mathilde, 6 years - cerebral palsy

*When Elise Mathilde was three years old, a physiotherapist discovered that Elise Mathilde's balance difficulties were caused by the fact that she had cerebral palsy. "It was almost a relief to know" says Elise Mathilde's mother. Now they finally could do something about it, instead of passively watching their daughter stumble and lose her balance.*

After several years of regular physiotherapy and passive stretching, the family's physiotherapist suggested that they try Happy Rehab. Elise Mathilde has been training with Happy Rehab since August, in intervals of 4-5 weeks, followed by two week breaks.

Today Elise Mathilde is 6 years old. She is on level 1 of the GMFCS scale, and in her daily life she can participate in most activities

in school and when playing with her twin sister. But before she started using Happy Rehab, she often stumbled, and when she went ice-skating with her sister, she had a much more difficult time keeping her balance.

Elise Mathilde's mother tells us that Elise Mathilde now, after having used Happy Rehab a little more than a half year, doesn't stumble as often and has a better sense of balance.

*"To our surprise, our physiotherapist also says that Elise Mathilde's joint range of movement has measurably improved, that is, she has better flexion of the ankle. That's really fantastic", says mum.*

Elise Mathilde thinks it's just fine to train with Happy Rehab. And when there are new games, it's even fun. She will continue using it to maintain her progress, and hopefully also to see more improvement.

*"If it had been a struggle every day, it wouldn't have worked, but it does, because she enjoys it", mum concludes.*



# Choose the right HAPPY REHAB™ system

The HAPPY REHAB system is available in three versions:

- Small (S) , Primarily for children
- Medium (M), Primarily for older children & youth
- Large (L) , Primarily for youth & adults.

The scheme below specifies the parameters in which the three versions differ and helps you choose the right version to suit your needs.



Age



User height



User weight



System width



Inner system width



4-9 years

95-130 cm  
(37.4-51.2")

< 50 kg  
(110 lb)

69 cm  
(27.2")

12-32 cm  
(4.72-12.6")



8-12 years

120-160 cm  
(47.2-63")

< 50 kg  
(110 lb)

69 cm  
(27.2")

12-32 cm  
(4.72-12.6")



12+ years

150-200 cm  
(59-78.7")

50-150 kg  
(110-330 lb)

70 cm  
(27.6")

28-51 cm  
(11.0-20.1")

*"Happy Rehab is a great assistive technology for both children and grown-ups. It is varied and motivational training, and many think that it is more motivating than other forms of training"*  
**- Physiotherapist**



**Min. system height**



**Foot - knee length**



**Foot - table height**



**System weight**



**Approvals**

61 cm  
(24.0")

22-30 cm  
(8.66-11.88")

53-75 cm  
(20.9-29.5")

25 kg  
(55 lb)

81 cm  
(31.9")

32-40 cm  
(12.6-15.7")

73-95 cm  
(28.7-37.4")

26 kg  
(57 lb)

89 cm  
(35.0")

36-50 cm  
(14.2-19.7")

78-115 cm  
(30.7-45.3")

40 kg  
(88 lb)

EN12182:2012

## Technical specifications:

Power supply, input voltage:	110 / 230V AC (50-60 Hz)
Input voltage:	24V DC
Max. power consumption, Small/ Medium:	80 W
Max. power consumption, Large:	300 W
Ambient temperature:	5 – 35 °C (41 - 95 ° F)
Storage temperature:	-10 – 45 °C (14 - 113 ° F)
Max. humidity:	90% RH

## Item numbers:

920-002-100	HAPPY REHAB 2 - Small
920-002-101	Upper support module – Small /Medium
920-002-102	HAPPY REHAB 2 - Medium
920-002-200	HAPPY REHAB 2 - Large
920-002-201	Upper support module - Large
920-200-000	FOUNDATION PACK - Pro (multi user)
920-200-001	FOUNDATION PACK - Home (single user)
980-003-001	Laptop, 15.6" Windows OS, english
980-003-002	Laptop, 10.1" Windows OS, english
980-003-003	Laptop, 12.1" Touch, Windows OS, english

*Protected by patent no. US9028369. Other patents pending  
We reserve the right to make changes without notice.*



Innovaid A/S, Muslingevej 38, DK-8250 Egå, Denmark

T: (+45) 86 78 99 33, mail@iaid.dk

**www.iaid.dk**