



C-Mill

Evaluation and training of impaired gait and balance using augmented- and virtual reality

Tomorrow's Rehabilitation Today

It is difficult to prepare your patient for real-life situations again after a trauma. Having them cope safely and confidently again with uneven pavements, doorsteps and slippery snow patches is demanding. There is no other device which assists you with meeting these treatment goals like the C-Mill. The C-Mill excels in training your patient to cope with these daily challenges.



Best Practice Rehabilitation

Many elderly patients or those that suffer from orthopaedic problems, Parkinson's Disease, or have suffered a stroke, struggle with everyday life due to their decreased walking ability.

Walking is an important skill in determining whether or not a person can live independently. To walk successfully, it is necessary to continuously adjust to the surroundings. Included in the clinical guidelines for rehabilitation of impaired gait or balance, are five important recommendations. Start early, train often, train with variety, practice day to day tasks and monitor progress.

C-Mill training uniquely excels in each of these areas.

- Due to the positive and encouraging training environments, higher training intensities can be achieved.
- Varying the augmented and virtual reality environments allow for variability in the training exercises.
- Training a patient's capacity to vary their walking pattern, prepares them for normal day-to-day demands.
- All results are stored by default. Reports can be generated and progress can be monitored.



Unique rehabilitation environment

The C-Mill is a powerful tool that allows for better and faster rehabilitation. After measuring and analyzing a patient's unique walking pattern, the C-Mill provides a safe and comfortable environment for walking and balance training. Clear visual objects are projected on the belt by a high-resolution projector. A patient tailored treatment can be offered using dozens of fun and challenging visual cues. Different augmented environments can be switched on or off with the push of a button.

The C-Mill: for complete, advanced analysis and training

Training and evaluation of impaired gait and balance is efficient, transparent and more enjoyable with the C-Mill. Challenging and motivating exercises and protocols allow patients to practice walking and balance in a safe environment. Goals for therapy can be set and evaluated with ease.

"C-MILL IS A UNIQUE DEVELOPMENT, IN WHICH A THEORETICAL INNOVATION HAS LED TO A PRACTICAL, IMMEDIATELY APPLICABLE AND USER-FRIENDLY PRODUCT FOR REHABILITATION."

P.A. KOPPE, MD. MEDICAL DIRECTOR
AT REHABILITATION CENTRE AMSTERDAM,
THE NETHERLANDS.





C-Mill Features

Training

The C-Mill is intended to train and evaluate a patient's balance and walking ability. You can use one of our predefined training sessions or create your own custom training session.

Train foot placement

C-Mill applications are projected onto the belt's surface, allowing a wide variety of treatment goals to be achieved. Train a patient's foot placement and gait symmetry with step targets, show obstacles to teach a patient to avoid them safely or train gait stability with slalom or tandem applications. In order to provide your patient with an enjoyable functional and motivating training, various tracks are available.

Train automated movement and dual tasking

Train patients across a broader range of the rehabilitation process

by triggering them to look forward. Automated movements and dual tasking can be trained using the various applications on the optional front display in combination with objects projected on the treadmill. For example, walk while performing the cognitive stroop task or walk while looking at a nature environment.

Feedback

While the patient is training, direct visual and auditory feedback is given on performance. Videos can be used during and after a training to give the patient and therapist insight into the patient's movements and performance.

Results

At the end of a training session or assessment, results are stored automatically and reports can be generated. The progression over time can be viewed to monitor a patient's performance.

C-MILL'S MAJOR STRENGTHS ARE 1) ENHANCED TASK-SPECIFICITY BY AUGMENTING THE WALKING SURFACE WITH VISUAL CONTEXT, 2) IMPLICIT TRAINING OF BALANCE AND VISUO-LOCOMOTOR CONTROL AND 3) OBJECTIVE REGISTRATION OF GAIT AND GAIT-ENVIRONMENT INTERACTIONS IN WALKING EVALUATION AND TRAINING."

MELVYN ROERDINK, PHD AND ASSISTANT PROFESSOR AT THE DEPARTMENT OF HUMAN MOVEMENT SCIENCES, VRIJE UNIVERSITEIT AMSTERDAM, THE NETHERLANDS

Why choose the C-Mill?

It's task specific: by projecting virtual objects on to the treadmill surface, gait adaptability can be trained optimally.

It's effective and efficient: with task specific training, variety in training content and repeatable exercises.

It's motivating: patients and therapist engagement and motivation improves by the obvious joy and progression of the patients.

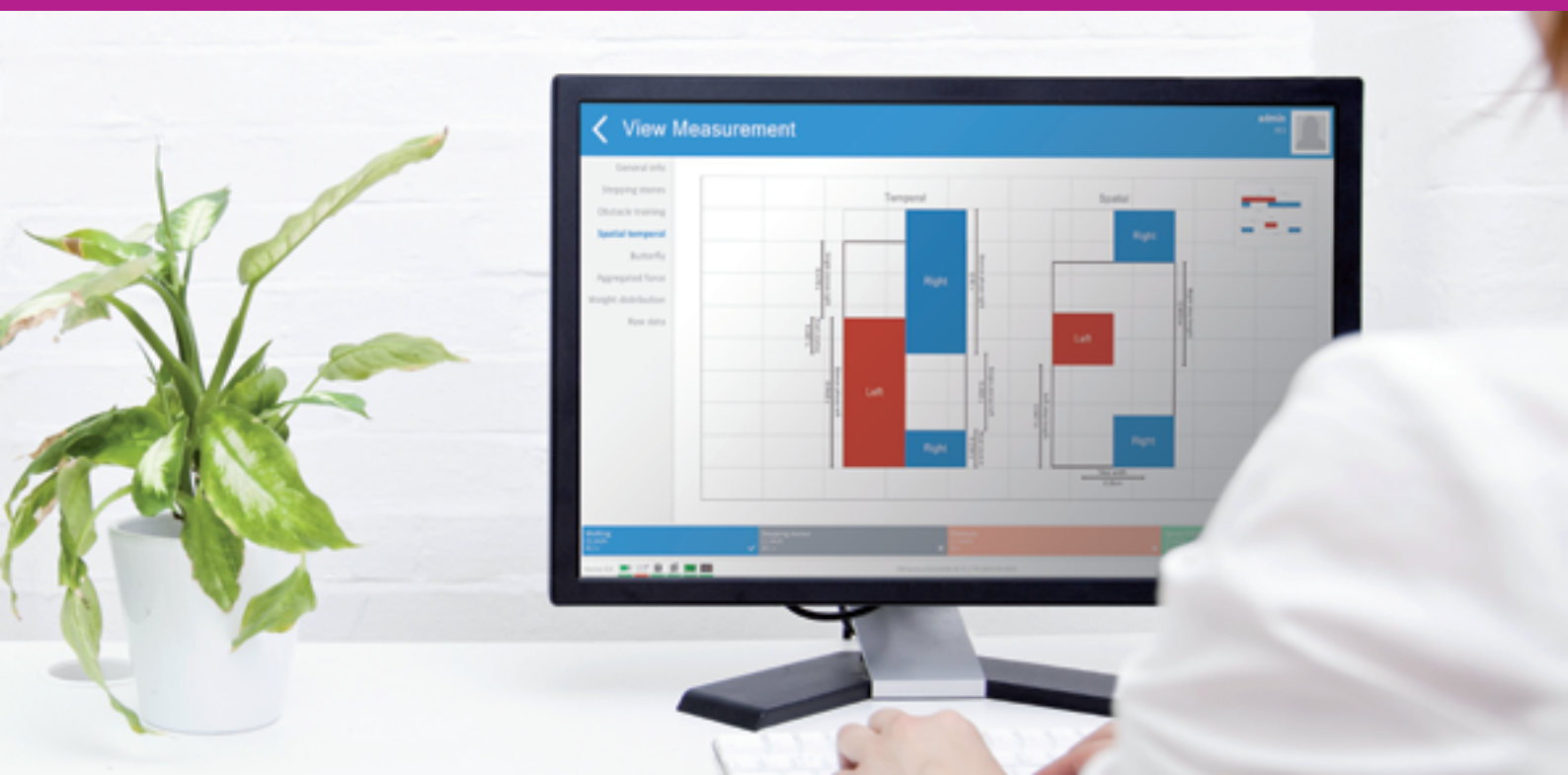
It's easy to use: with only one click you can start individualized protocols.

It's safe: with adjustable handrails, safety frame and small incremental treadmill speed of 0.1 km/h, a safe environment is created.

It's communicative: the C-Mill makes patients aware of their movements through immediate feedback projected on the treadmill, auditory feedback, video recordings and clear reports..

It's for a lot of patients: ranging from neurological patients to orthopaedic patients; fall prone elderly patients to children.

It's unique: the C-Mill truly sets your rehabilitation centre apart from other centres with regard to treatment possibilities.



Sometimes in our lives a setback in movement and mobility, due to disease, trauma, or aging, adversely affects our quality of life. To regain mobility, restore and improve human performance, Motekforce Link draws on 15 years of experience in rehabilitation technology and virtual reality.



Motek is a proud partner of



Motekforce Link B.V.
 Hogehilweg 18 - C
 1101 CD Amsterdam
 The Netherlands

www.motekforcelink.com
info@motekforcelink.com

Find Out More About Us

All products, patents, and trademarks are registered and owned by Motek Medical and Force Link, which are fully owned subsidiaries of Motekforce Link. For more information, feel free to contact us at info@motekforcelink.com