

# CUREO

## Virtual Therapy – Real Success

mobile, immersive, motivating



\*Image may differ from the actual product.

## What is CUREO?

Countless studies demonstrate the high potential of immersive therapy based on virtual reality (VR). But so far, practical implementations have not yet met clinical needs.

With **CUREO**, an innovative, sophisticated VR therapy system is finally available to you and your patients. Consisting of hardware and the pre-installed software, **CUREO** is immediately applicable and already in use in leading clinics. Modular training units in a VR environment playfully support cognitive, sensory and motor (especially upper extremity) rehabilitation. From bedside to clinical and outpatient rehabilitation to aftercare, **CUREO** can be used transsectorally.

**CUREO** motivates patients to engage in high-frequency training and promotes therapy success. In addition, therapists can treat multiple patients at the same time - allowing you to make the best use of your clinic's resources.

The **CUREO** software is CE-certified as a medical device and our innovative therapy approach has received several awards:



WSA Global Award 2020  
Category: „Health and Wellbeing“

DIGI HEALTH AWARD WINNER



Digi Health Talk

„Best Future Impact“  
2020

DIGI HEALTH AWARD  
Category: „Best future impact“



## CUREO for high-quality care

The **CUREO** system offers new possibilities in rehabilitation and helps you meet the diverse and demanding challenges in every therapeutic situation.

- **CUREO** enables parallel, individualized therapy of several patients by one therapist saving valuable resources.
- Under the guidance of therapists, trained therapy assistants can also perform **CUREO**.
- **CUREO** makes it possible to benefit from several therapy methods and options simultaneously.
- **CUREO** is light-weighted, compact, can be used anywhere and on the move.

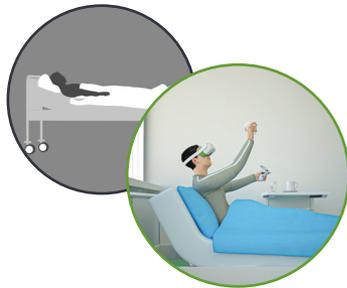


## Remote capability

Wireless “remote” capability enables therapy control by the therapist by the therapist at a distance. This expands the range of applications – especially since there is no need for a power outlet. Thanks to the remote function, the training can be performed entirely contact-free and presents a significantly reduced risk of infection.

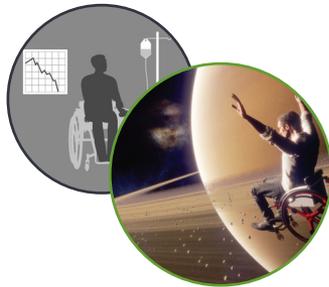
# CUREO – one system, many advantages

As a compact therapy system **CUREO** can be used on the move, independent of time and place, making it the ideal system for phases B to F of rehabilitation.



## Immediate therapy start

**CUREO** is suitable for hospital beds, bringing the therapy to the patient. It enables an immediate therapy start and high-frequency training. There are no infrastructural requirements.



## Increased motivation

By immersing yourself in a virtual world the effect of pathologizing clinical surroundings is reduced. Through gamification, patients experience a sense of achievement increasing intrinsic motivation and therapy success.



## High therapy frequency

With **CUREO** one therapist can care for several patients at the same time a reduction in staff needs as well a qualitatively and quantitatively improved care.



## Suitable for aftercare

**CUREO** enables new aftercare concepts through mobile, outpatient use at the patient's home and sustainable quality of care.



What makes **CUREO** unique, is the positive effect of using virtual reality and gamification of digital content for effective therapy and patient's recovery time.

Alexander Felsenberg, Chairman WSA-Germany,  
Member of the Board WSA-Global



## Indications

The therapy was designed for patients with the following indications, among other:

- Stroke of ischemic or hemorrhagic origin with residual hemiplegia/paresis
- (Infantile) cerebral palsy
- Spinal cord injuries (Commotio, Contusio, Compressio Spinalis)
- Musculoskeletal diseases
- Neuropathy (Guillain-Barré Syndrom, PNP)
- Craniocerebral trauma
- Neurodegenerative diseases (z.B. Multiple Sklerose, Parkinson's, ALS)

## Areas of application

**CUREO** addresses cognitive, sensorimotor and perceptual impairments such as:

- Sensory defects
- Proprioceptive defects
- Neglect
- Apraxia
- Acute Pain
- Memory impairment
- Impaired planning and orientation
- Attention deficit

**CUREO** addresses the upper body region:

- Upper extremities including shoulder girdle, upper arm, forearm and hand
- Head movements
- Trunk

**Disclaimer:** You can find an extensive list of indication, therapy goals and areas of applications on our website: <https://www.cureosity.de/indikationen>

## Therapy goals

**Promotion of cognitive skills such as:**

- Perception of space, shape and color
- Attention
- Memory and learning
- Planning and executive functions

**Promotion of the motor skills of the upper extremities and the trunk such as:**

- Range of motion, quantity and quality of movement
- Coordination and proprioception
- Postural control in sitting and fall-secured in standing position
- Reach of the upper extremities
- Hand and finger functions (basic grasping functions and hand opening)
- Fine motor training of the hand, e.g. tweezer grip, power grip
- Finger movement

**General improvements such as:**

- Stress, anxiety and pain reduction, alleviation of depression.
- Body awareness and tone regulation
- Therapy motivation (Compliance)
- Mood improvements
- Neuroregulation



## Targeted modules for a successful therapy

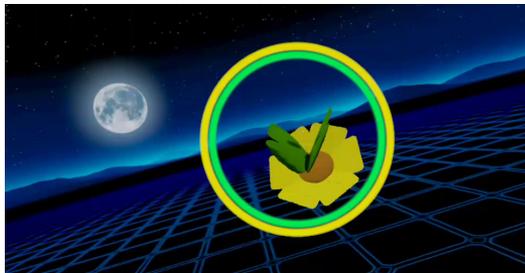
**CUREO** offers 6 modules that build on each other and can be flexibly and finely adjusted in terms of difficulty. Thus, depending on the patient's ability and needs, it is possible to select which module should be performed. For example, if the patient can only move his or her head, the „active“ module offers suitable exercises in which objects are tracked only with the gaze. In the game „Taiko“, for example, the location of the drums can be adjusted to the patient's range of motion as part of amplitude training.

Furthermore, additional functions, such as the mirror mode, can be added in all **CUREO**-modules to create a further cognitive and motor stimulus. Between the exercises, units of the „relax“ module can be carried out, in which patients can rest and prepare for the next exercise. In this way, different therapy goals can be addressed and realized.



### active

The „active“ module is suitable for severely affected patients. From the beginning of the rehabilitation, it stimulates and activates attention while diminishing neglect.



### relax

The module „relax“ promotes neuroregulation, stress reduction and pain relief. It is and is suitable for all patients groups and supports therapy compliance and acceptance.





## C moto

The “moto” module includes bilateral and unilateral motor training of the upper extremities and promotes passive and active mobility.



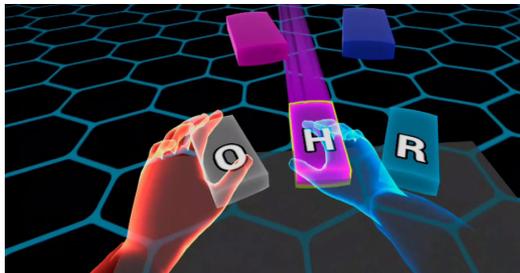
## C daily

In the „daily“ module patients are immersed in a virtual environment, i.e. a virtual kitchen. Everyday situations are simulated and daily tasks are practised, i.e. the use of tools.



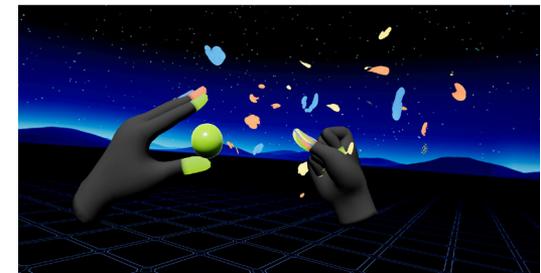
## C cogni

The “cogni” module offers cognitive and sensory aspects training. It promotes color and shape recognition, spatial perception, improved coordination and memory.



## C finger

In the „finger“ module, fine motor skills as well as the mobility and coordination of hands and individual fingers are trained. By performing manual activities, the patient practices skills such as holding and grasping (e.g. power and tweezer grasp).



# Unique, innovative therapy functions

## Embodiment via an Avatar

**CUREO** is based on the principle of immersion - the immersion in a virtual reality. Visual and acoustic feedback of an executed movement is transferred to an avatar in the virtual scenario.

## Mirror therapy

**CUREO** uses mirror therapy in an immersive environment with unique benefits in terms of adjustability and precision. We overcome physical limitations through a virtual environment eliminating the use of physical mirrors that form an obstacle for patients during therapy.



## Gamification

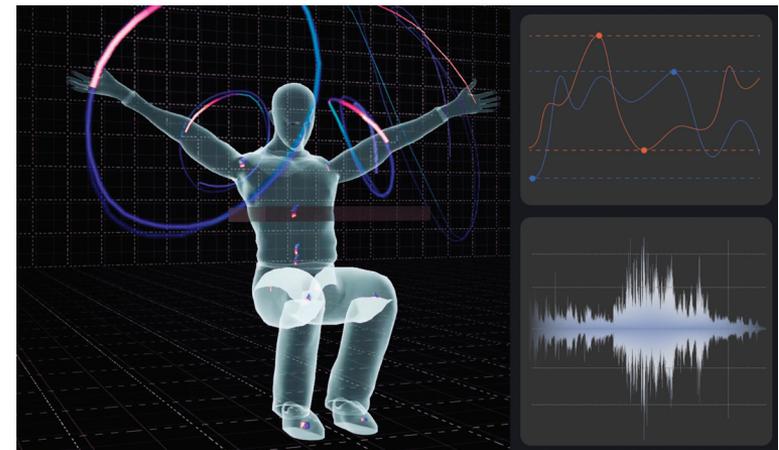
With the help of a virtual environment and gamified immersive scenarios, **CUREO** makes patients curious and motivated. The level-based and diverse game modules activate patients' reward systems and ensure sustainable intrinsic drive.

## Motion sickness prevention

All therapy applications have been designed in such a way that patients do not experience dizziness or motion sickness by applying neurophysiological and neuropsychological principles. So far no instances of motion sickness have been reported by our patients.

## Sonification

In the sonification-mode, patients generate sounds through free movements that change based on horizontal and vertical motions. By connection movement with sound, the perception of the affected extremity is synaesthetically activated.



## Individual adjustability for every patient

### Effective and user-friendly therapy control

The therapist can change the therapy applications uninterrupted and without interference during an ongoing therapy and consider different perspectives. These interventions are not noticed by the patient.

### Individual fitting

In each module, the level of difficulty can be defined. Focus and speed of the exercise can be adjusted, as well as stepless differentiation of therapy focus between sides (from unilateral left, via bilateral to unilateral right). The virtual environment can be adapted to the therapy situation.



You feel additionally encouraged to try a wide range of movements. The therapy motivates you to live up to the expectations posed by the different levels and to push yourself more.

Patient - Stroke with hemiparesis



### Visualization, history and statistics

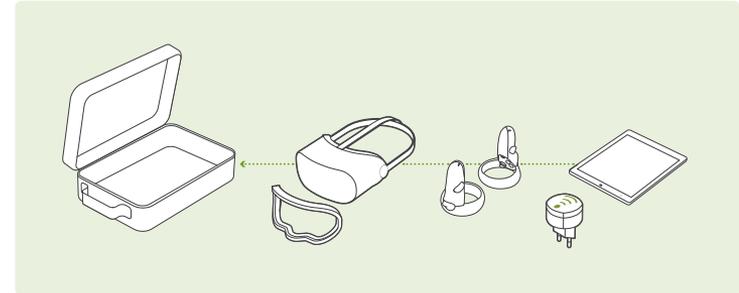
The integrated display visualizes patients' movements in real-time and provides an overview of the therapy progress.

### Auto-Mode

The auto mode offers various automated repeat functions, which decrease excessive attention from the therapist and improve therapy efficiency. The level of difficulty is adapted to just the right level for each patient (no over or under stimulation).

# The CUREO therapy system at a glance

CUREosity offers a compact, mobile complete system. Thanks to the pre-installed software it is ready for immediate use. The CUREO therapy system consists of the CUREO software, which is CE-certified as a medical product, and the associated hardware.



## CUREO service

### Full Service & Support Package

- Initial on-site training ensures that you can start your therapy immediately
- You and your patients benefit from all new developments through updates and functional development
- Our technical support is available for all questions by phone
- Connection to building technology is not required
- Individual adjustments and additions are possible by request

## CUREO system

### All required hardware included

- Tablet
- VR headset
- Controller
- WLAN router
- Disinfectable silicone cover
- Practical carrying case
- 2,5kg light



# About CUREOSITY

CUREosity is an award-winning Med-Tec company that changes rehabilitation sustainably by implementing innovative therapy concepts.

The founders are motivated by personal fates. Unsuccessful attempts at conventional therapy has made it their mission to help affected patients regain their skills and quality of life through novel approaches.

Our VR therapy system combines neuroscientific findings, especially the potentials of neuroplasticity, with decades of therapy experience as well as the technical, digital and creative know-how of our development team.

CUREosity's goal is to provide clinics, doctors and therapists with innovative products that help improve the quality of their care of affected patients. An interdisciplinary team of over 26 specialists in the areas of 3D visualization, IT, game design and medicine created a system that turns virtual therapy into real success: **CUREO**.



# CUREOSITY

Satisfied patients report new found motivation and successful therapies.  
More at: [www.cureosity.de](http://www.cureosity.de)



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