RehaCom®

Cognitive Therapy

EVIDENCE-BASED - CLINICALLY PROVEN

Stroke/TBI
Multiple Sclerosis
Dementia/Alzheimer
Psychiatric Disorders
Geriatrics
ADHD

Made in Germany

Content

Visit our HASOMED YouTube channel and watch 'RehaCom Introduction'

RehaCom – Highly effective therapy

for patients with cognitive deficits resulting from stroke, TBI or degenerative diseases

Patients in more than **1.500** clinics benefit daily from our solution Made in Germany. RehaCom is world's **most comprehensive system** for computer-aided cognitive rehabilitation.

RehaCom provides deficit-specific, patient-centered treatment. Years of research, testing and adapting has gone into making this the **most deficit specific software** on the market. **Twenty-seven computerized therapy modules** are available to help your patients improve cognitive function and compensatory skills in **attention, memory, executive functions and visual field**. The system provides **nine screening modules** in order to support the therapist to choose the most effective therapy modules.

RehaCom is suitable for **all stages of rehabilitation** and can be assigned according to each patient's level of **deficit from mild to severe**. After starting the therapy, RehaCom **adapts automatically to the patients performance**. It's not necessary to watch the patient all the time. RehaCom leads the patient, instructs and gives feedback.

Patient progress are automatically tracked and monitored across a wide variety of cognitive domains while the **clinician is able to deliver services to a greater number of clients** - increasing both client treatment efficacy and clinician efficiency.

The system is **used in clinics, hospitals, nursing homes, rehabilitation centers and in outpatients services**. RehaCom provides both a **computer offline solution for inpatients** as well as a **Telerehabilitation solution via Internet for outpatients**.

Learn more about RehaCom and become a member of the global RehaCom community!

Modular Structure

RehaCom includes 27 modules for training basic functions as well as specialised and more complex modules for training several affected cognitive functions. Starting at a low level of difficulty, the client can progress to solve increasingly complex tasks.

Effectiveness

Numerous studies scientifically support the effectiveness of RehaCom. Please visit our website at rehacom.com to find all the latest RehaCom studies.

Efficiency

With RehaCom, many clients can train independently. At the beginning and the end of training, the client and therapist determine the therapy goal and discuss the results face-to-face. As clients can complete their cognitive training independently using RehaCom, the therapist benefits from spending less time building up cognitive capacities, which leaves more time to focus on other goals such as developing communication strategies. By implementing RehaCom in a clinical setting, therapists can even work with several clients at the same time – one more reason why RehaCom has become a market leader for computer-based cognitive rehabilitation in the world.

Adaptivity & Individualisation

RehaCom is an auto-adaptive programme which adjusts the complexity of each task automatically to the client's actual performance. The programme provides the client with just the right degree of challenge - the requirements are neither too high nor too low. This makes RehaCom-driven therapies very motivating while avoiding frustration.

Error-Specific Feedback

The computer acts as a neutral observer. It makes objective comments on the client's performance and provides error-specific feedback where necessary. This helps to bolster the self-confidence of clients and can minimize the risk of side effects often caused by brain damage, such as depression or low self-esteem.

Continuity and Control

RehaCom saves all training results. A new training session starts right where the last was ended. This allows for controlling the course of therapy and for adjusting parameters promptly. The therapist can analyse all client data to further refine the therapy strategies.

RehaCom Licensing and Solutions

	Requirements	Item to be purchased	Accessory (opt.)
Single Computer	· windows based PC	· License for 1, 3 or 7 years · Patient Keyboard or (dongle)	· Chin rest

Server Network	· existing clinic server
	· existing integrated client PCs
	· note: training data stored on
	  central server data base in
	  the clinic
		· Server network license
		  for 1, 3 or 7 years
		· Server dongle
			· Chin Rest
			· Patient
			  Keyboard

Internet/Home training	· windows based PC with
	  internet connection
	  (therapist and patient)
		· Internet time Licenses
		  (based on training hours
		  consumption)
			· Patient
			  Keyboard

Training Times

The rehabilitation of cognitive impairments requires continuous treatment over time. Therapy begins in the clinic and can be continued at home under supervision of a therapist. The duration of a therapy session with RehaCom depends on the client's personal performance. According to German clinical guidelines, clients should train:

	Frequency	Duration
Acute phase	· Several times a day	· 10-15 minutes
In the following 6 weeks	· at least 3-5 times a week	· sessions of 30-45 minutes
Late phase of rehabilitation and in subsequent home training	· 3-5 times a week for about 3-5 months	· 45-60 minutes

Chin Rest/Head Rest

We recommend using a chin rest/head rest for training of the visual field. This allows the client to stay in a comfortable and replicable position in front of the monitor, remaining the same through-out the training session. The chin rest is vertically adjustable and can be adapted individually. It is made of a light and robust aluminium construction and can be fixed to the table with a screw clamp. The aluminium/varnished wood design facilitates easy cleaning.

RehaCom Keyboard

A conventional PC keyboard may be inappropriate as an input device for computer-based therapies. Therefore, we offer a special keyboard that allows clients with severe motor impairments to use the PC.

Evidence Matters

RehaCom has been developed by therapists for therapists over a period of more than 25 years. The effectiveness of computer-aided therapy in general and of RehaCom in particular has been documented in more than 50 studies. It is a general consensus that frequency and intensity of training are major factors in attaining verifiable improvements.

On the basis of numerous studies, RehaCom is recommended by German Society of Neuropsychology (GNP) and the German Association of Occupational Therapists (DVE).

In order to prove the effectiveness of computer-aided therapy with RehaCom, we are always interested in new studies. We are pleased to support you in your project. Contact us!
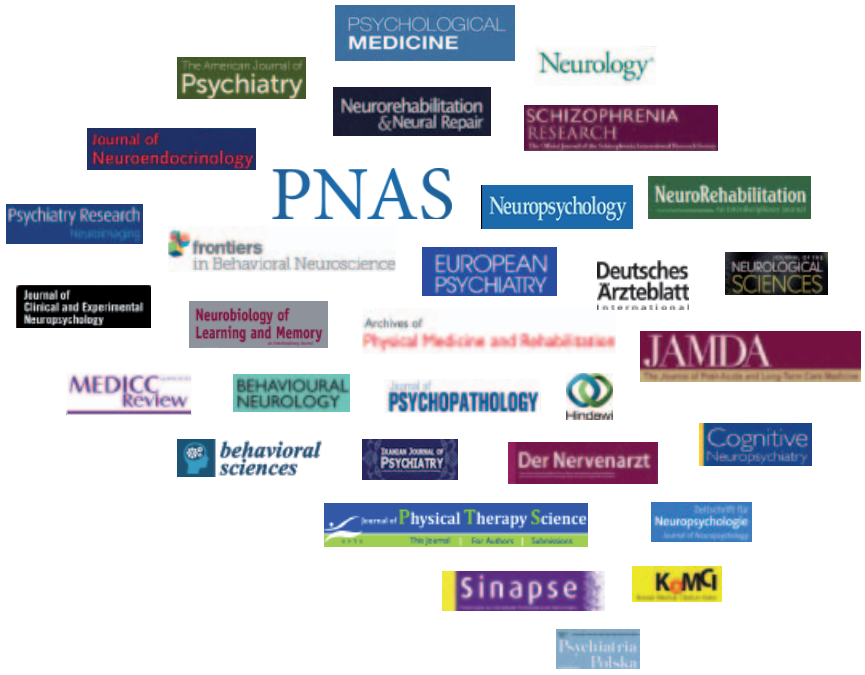
rehacom.com/research

Cognitive Training in 5 Steps

1

Screen Your Client

· The therapist measures the client's performance.

· RehaCom offers 9 screening modules to test cognitive functions.

· Screening modules provide results in comparison with healthy people of the same gender and age.

· As a result of testing, the system recommends RehaCom therapy with specific therapy modules that fit the client's needs.

Screening modules:
Alertness · Divided Attention · Selective Attention · Working Memory · Spatial Numbers Search · Memory for Words · Logical Reasoning · Visual Field · Campimetry

2

Choose Appropriate Therapy Modules

· There are up to 27 RehaCom therapy modules available.

· Each module provides hundreds of tasks with different levels of difficulty: from very easy - to highly complex tasks.

· Each module operates in a self-adaptive manner.

· Modules are available for a basic therapy of fundamental cognitive functions as well as for training abilities used in everyday life.

Self adaptivity:
RehaCom measures the current performance of the client during the course of a therapy and automatically selects the appropriate level of difficulty. This guarantees best therapy results for the client.

3

Individualize the Therapy

· Therapists can adjust every module exactly to the client's needs.

· The self-adaptive mode of every module can be adapted to different therapeutic tasks.

· Parameters can be adjusted to control therapy duration, number of tasks, working speed, feedback etc.

· Therapy modules can be adapted to the client's family background, profession or personal preferences.

Individualize therapy material:
An individualized therapy is not a must, but nice to have. Every client has a story and unique needs. With RehaCom you are well prepared for any challenge a therapy may hold.

4

Let's Get the Therapy started

· Before the therapy starts, the therapist has to introduce the therapy task to the client.

· RehaCom supports this introduction by means of instructions or tutorials.

· After the instruction phase, the client works for a time of 15 to 60 minutes.

· The computer monitors the client throughout the therapy.

The client works independently:
The RehaCom module monitors the client's behavior, reaction times, mistakes etc. The system gives feedback and adapts the difficulty level automatically.

5

Analyse the Therapy Results

· All screening and therapy results are stored automatically in the client's data

· The therapist can evaluate and print the results as an overview or in detail

· Thanks to detailed recording of the therapy progression it is easy to decide on the next therapeutic measure.

· After a defined number of therapy sessions, the success of the therapy can be monitored by repeating the screening and comparing the results before and after the therapy.

Different views of result display:
The simple result view explains the progress of the therapy to the client in a clear and easy-to-understand way. The advanced result view allows the therapist to see every detail. All results can be printed out for documentation.

Screenings & Training Modules

Languages (columns): German, English, French, Spanish, Portuguese, Italian, Greek, Swedish, Finnish, Danish, Dutch, Belgian (Dutch), Russian, Polish, Czech, Slovenian, Hungarian, Latvian, Lithuanian, Chinese (simplified), Chinese (traditional), Korean, Japanese **NEW**, Turkish, Arabic, Hebrew, Farsi

Screenings

Module	Code	Catalog page	Levels
Alertness	ALET	15	
Divided Attention	GEAT	15	
Selective Attention	GONT	15	
Spatial Numbers Search	NUQU	16	
Working Memory	PUME	16	
Memory For Words	WOMT	16	
Logical Reasoning	LOGT	17	
Campimetry	KAMP	17	
Visual Field	VITE	17	

Attention

Subcategory	Module	Code	Catalog page	Levels
Alertness	Alertness Training	ALTA	18	16
Alertness	Reaction Behaviour	REVE	19	16
Alertness	Responsiveness	REA1	19	20
Vigilance	Vigilance 2	VIG2	20	9
Sustained Attention	Sustained Attention	SUSA	20	9
Selective Attention	Attention and Concentration	AUFM	21	24
Divided Attention	Divided Attention	GEAU	21	14
Divided Attention	Divided Attention 2	GEA2	22	22
Divided Attention	Spatial Operations 2	SPOT	22	11
Divided Attention	Spatial Operations 3D	RO3D	23	24
Divided Attention	Two-Dimensional Operations	VRO1	23	24
Visual-Spatial (spatial-constructive)	Visuo-Constructional Ability	KONS	24	18

Memory

Module	Code	Catalog page	Levels
Working Memory	WOME	25	69
Memory Strategy Training	LEST	26	18
Memory for Words	WORT	26	30
Figural Memory	BILD	27	9
Verbal Memory	VERB	27	10
Topological Memory	MEMO	28	20
Physiognomic Memory	GESI	28	21

Executive Functions

Module	Code	Catalog page	Levels
Logical Reasoning	LODE	29	23
Shopping	EINK	30	18
Plan a Vacation	PLAN	30	55
Calculations	CALC	31	42

Visual Field

Module	Code	Catalog page	Levels
Saccadic Training	SAKA	32	34
Exploration 2	EXO2	33	18
Restoration Training	RESE	33	1

Visuo-Motor abilities

Module	Code	Catalog page	Levels
Visuo-Motor Coordination	WISO	34	96

Legend: ■ available ■ partly available ☐ not available

(October 2019)

Screenings

Targeted cognitive therapy is an important instrument in the rehabilitation process. Before starting the therapy, a diagnostic assessment of all brain functions is made in order to pinpoint the impairment as well as determine which functions are still intact. Then, a therapy plan is created to meet the client's specific needs and specific goals are defined together with the client so that the therapy is as successful as possible.

RehaCom is a therapy tool. As such, it is designed to support the rehabilitation of cognitive impairments. Rather than provide a complex assessment, the screening tool just gives a general indication regarding the deviation from the norm.
Specially adapted screenings can help to identify suspected cognitive weaknesses or impairments. These can be assessed with further specific diagnostic tools afterwards. The results provide a quick overview of the affected cognitive functions.

The RehaCom Screening Set consists of 9 modules for screening the cognitive status of clients with neurological and/or psychiatric diseases. The therapist can evaluate the screening results and get recommendations on which training should be used.

Alertness
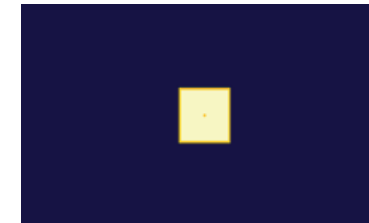
Measures tonic, phasic and intrinsic alertness

....

This module measures the tonic and phasic alertness. The client has to push a button as fast as possible, whenever a square on the screen is filled. (tonic alertness condition). In half of the trials a signal can be heard just before the square appears (phasic alertness condition). The client should benefit from the sound and react just a little faster than without it. The mean reaction times for both conditions are recorded.

🕐 5 min.

🚩 48 visual stimuli,
24 of them with warning sound

Divided Attention
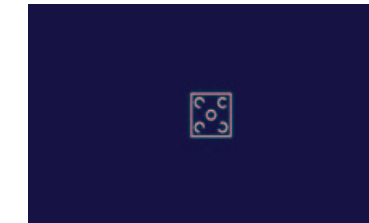
Measures the ability to respond to more than one task simultaneously

....

In this module, the client has to react to a visual and an auditive task simultaneously. One trial presents 80 visual stimuli with about 15% relevant stimuli as well as 160 auditive stimuli with approximately 10% relevant stimuli. The client has to push the same button on the keyboard in response to a visual as well as an auditive stimulus.

🕐 4 min.

🚩 160 auditory stimuli,
80 visual stimuli

Selective Attention
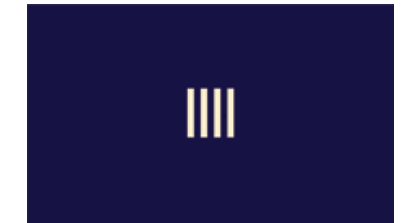
Measures the ability to respond to relevant stimuli under time pressure and ignore irrelevant stimuli

....

This screening measures the ability to react quickly to certain stimuli and refrain reacting to others (go-/no-go paradigm).In everyday life, it is essential to be able to suppress reactions in favour of internally controlled behavior. The mean reaction times and errors are recorded.

🕐 3-4 min.

🚩 20 Go and 20 NoGo stimuli

Spatial Numbers Search

Measures the overall cognitive performance speed and lateral preference in solving a simple visual search task

....

24 two-digit numbers (01-24) are displayed on the screen. The task is to find and click them in ascending order. This requires a sufficiently preserved visual acuity as well as basic language comprehension. Processing times, lateral preference and exhaustibility are evaluated. This task is deduced from the well-known 'Digits Connection Test' developed by Oswald and Roth in 1987.
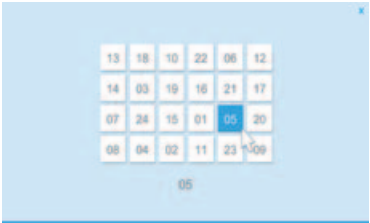
🕐 4-5 min. (max. 8 min.)

🚩 24 two-digit numbers

Working Memory

Measures the visual-spatial memory span and certain aspects of working memory

....

Ten dots are arranged in a circle on the screen. During the learning phase, an increasing number of dots at different positions blink one after the other. The task is to remember those points and then click them in the corresponding order (immediate memory span). After two consecutive errors the test is completed.

🕐 3-7 min.

🚩 10 circularly arranged dots

Memory for Words

Measures the verbal learning ability/aspect of verbal memory

....

This screening measures the client's ability to memorize and recognize words. First, the client is shown two words at the same time and must indicate whether the words are different or identical. In the second stage, the client will be shown one word at a time on the screen. The client must indicate whether this is the first time the word has appeared, or whether it has appeared before. This module requires the client to use their long-term memory and recognition methods to complete the test successfully.

🕐 10 min.

🚩 72 words in blocks of 12 words each

Logical Reasoning
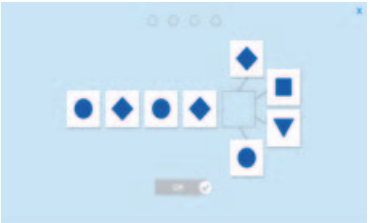
Measuring the ability to think in a convergent figurative way

....

This screening measures the client's ability to complete a sequence. It examines whether the client can identify irregularities and is able to draw logical conclusions. Visual material similar to intelligence tests used by Weiss, Cattell, Horn Sturm and Melchers is used. A visual sequence of four blocks will be displayed on the screen. Clients must complete the sequence correctly by selecting a 5th block from the options available. This screening is an important part of executive function diagnostics.

🕐 5-7 min. (max. 13 min.)

🚩 13 picture sequences

Campimetry
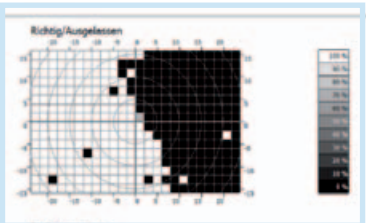
Visual field screening

....

The field of vision can be examined binocularly or monocularly using the screening campimetry. In contrast to the three-dimensional perimetry, this campimetry is two-dimensional. In the test, stimuli are displayed in different locations on the screen at random intervals. As the clients keep their gaze fixed on a central point on the screen, they are asked to perceive these stimuli and confirm them as quickly as possible with the answer button. To control the fixation, the fixation point changes its colour or shape at irregular intervals. The change of colour should also be confirmed as quickly as possible with the answer key. Before performing the test, parameters such as screen size, distance from eye to screen, size of the measuring matrix, as well as which eye will be tested, can be set.

🕐 Approx. 15 min.

🚩 404 relevant stimuli, 81 fixation controls

Visual Field

Visual field screening under selective conditions

....

This screening measures the visual field and fixation accuracy of the client. In many hospitals, clinics and outpatient facilities, assessment of the visual field is difficult. This module provides them with an accurate tool. Clients will be asked to focus on a circle in the centre of the screen. They must indicate when they notice the circle filling with colour. They must also indicate when a line appears leading away from this circle with another circle on the far end. Clients must not react if there is no circle at the end of the line. The results can be printed as a visual field map.

🕐 Approx. 10 min.

🚩 96 relevant stimuli, 48 irrelevant stimuli, 58 fixation controls

Attention

Attention disorders are very common in both neurological and psychiatric patients and affect all areas of life.

While we think about a single concept in everyday life and speak of 'attention', science distinguishes between various subfunctions, such as alertness, sustained attention and selective attention. Depending on the disorder or the location of damage in the brain, different attention functions can be affected and require specific training.

Alertness Training

The ALTA module trains the alertness dimension of attention – the ability to temporarily increase and sustain the intensity of attention. The aim of alertness training is to increase the intrinsic alertness, towards attaining full cognitive control of the arousal.

....

Indications: Symptoms from attention deficit disorder, chronic fatigue syndrome, depression. Aim: to increase intrinsic alertness, causing attention to be entirely cognitively controlled. It is necessary to improve the phasic alertness first and then proceed to work on intrinsic alertness. For early phases of rehabilitation, this module can be used as a criterion for driving suitability or as supplementary training for clients with neglect.

Task: The client's task is to observe a realistic street scenario and react quickly after a stimulus appears. The maximum response time can be set based on two pre-selectable values. RehaCom recognizes correct, missed, and false reactions.

Training Material: The client will see objects (vehicles, animals, people etc.) appearing in their line of sight. As the level increases, so does complexity. The stimuli appear in different locations on the screen (centrally, laterally, etc.). This produces a demand on anticipation and intrinsic reactivity similar to real-life scenarios. Clients should train for at least 10 minutes (recommended).

NEW revised Reaction Behaviour

Training of reaction behaviour for single multiple-choice reactions to visual stimuli.

....

Indications: For patients with reduced reaction speed (e.g. with /after dementia, TBI, ischemia).

Task: Whenever a relevant stimulus is shown on the screen, the patient has to press the corresponding reaction button as fast as possible.

Training material: During the learning phase, objects and the corresponding reaction buttons are given. During the training phase, relevant stimuli are presented to the client who must react within a certain time interval. Optionally, inhibition behaviour (by connecting irrelevant stimuli that require no reaction) can also be trained.

NEW: In addition to adjustments to the level structure, the module is above all optically revised. There is new imagery to five topics: traffic, meadow, sky, water and space.

Responsiveness
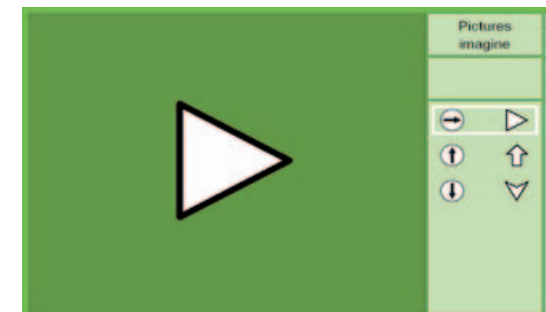
The REA1 module aims to improve reaction speed and accuracy to visual and acoustic stimuli. Simple reaction tasks, simple choice and multiple-choice reaction tasks are used to train the client to react to certain stimuli as quickly and with as much differentiation as possible.

....

Indications: Impairment of responsiveness after cerebral lesions, disorders of selective attention performance, disturbances of visual and acoustic discrimination, cognition and/or behavioural performance. The module is less suitable for persons with severe ametropia (visual refractive error) or poor hearing.

Task: Responsiveness is trained using simple reactions, simple choice and multiple-choice reactions with visual and/or acoustic stimuli. The training involves either only visual (module 1) or visual and acoustic stimuli (module 2). After a stimulus has appeared, the client must press a particular button on the RehaCom panel as fast as possible. During the acquisition phase, the client memorizes the assignment of relevant stimuli to corresponding buttons. The reaction speed and accuracy are measured and evaluated.

Training material: More than 200 visual stimuli and 6 acoustic stimuli in 3 variations each are included in the training. The therapist can add visual and acoustic stimuli (pictures and sounds) using the integrated programme editor.

ALTA | 6+ | 2x 16 Levels | 27 Languages

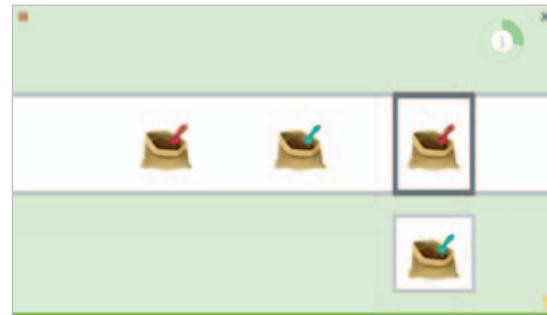REVE | 6+ | 16 Levels | 25 Languages

REA1 | 8+ | 2x 20 Levels | 27 Languages

Vigilance 2

Training of the ability to maintain the focus and level of attention while subjected to a condition of monotony (decreased frequency of stimuli and fewer selected reactions).

....

Indications: The training is indicated for clients with problems maintaining attention performance when subjected to stimuli with a relatively low density over a longer period of time.

Task: The client's is given the task to compare objects on the conveyor belt, which pass by at irregular intervals, with the original object. Objects on the conveyor belt that do not correspond to the original items must be sorted out. In the beginning of the training, the density (number of total objects) and the number of objects that need to be sorted out is rather high; however, it decreases over the course of training.

Training material: Pictures with specific, real-life objects are available in 9 levels. Each original object comes with 3 modifications (differentiations in colour, outline and object details). The belt's direction of flow and speed are adjustable.

Sustained Attention
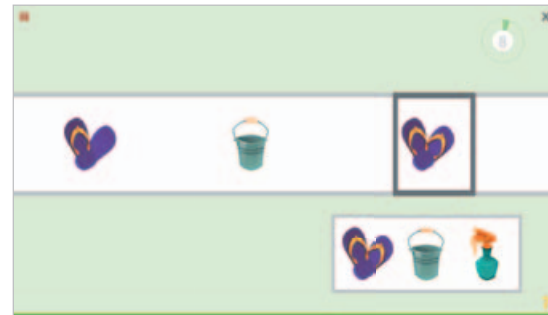
Training of the ability to maintain the focus and level of attention during high frequencies of stimuli and high demands on the selection process for longer periods.

....

Indications: The training is indicated for clients with problems maintaining attention performance under the condition of stimuli with a relatively high frequency and an increasing number of reaction choices over a longer period of time.

Task: As in the Vigilance 2 module, the client's task is to compare objects on the conveyor belt. Objects that do not match the original ones must be sorted out. Contrary to the Vigilance 2 training, the stimuli density (number of total objects) and the percentage of objects that need to be sorted out, increases over time.

Training material: Image collections of specific real-life objects are available in 9 levels. Each original object comes with 3 modifications (differentiations in colour, outline and object details). The difficulty can be adapted by changing the number and resemblance of the objects and by increasing the stimulus interval and the number of wrong objects. The belt's direction of flow and speed are adjustable.

Attention and Concentration
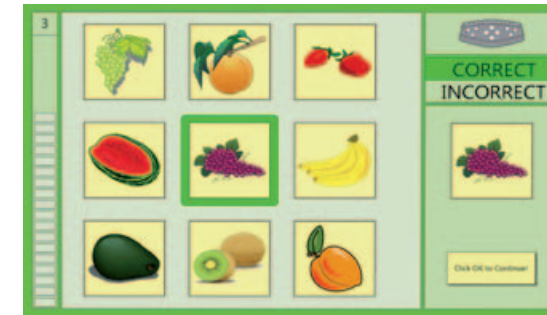
The AUFM module is based on the principle of pattern matching. The client has to find one picture in a matrix that matches exactly the 'comparison reference picture'.

....

Indications: Attention disorders (functionally and organically caused) after acquired brain damage. They are found in 80% of all persons affected by stroke, TBI, diffuse organic brain impairments (e.g. caused by chronic alcohol abuse or intoxication), as well as in other diseases of the central nervous system. Suitable for clients with disorders in attention and concentration.

Task: A picture shown separately on the screen has to be compared to a matrix of pictures. The client must find the picture in the matrix matching exactly the 'reference picture'.

Training material: A total of 77 picture collections are available, each containing 16 coloured illustrations. All pictures are optimised as regards visibility and differentiability. According to parameter settings, either concrete objects (fruits, animals, faces etc.), geometric objects (circles, rectangles, and triangles of different size and order) or letters and numbers are displayed.

Divided Attention
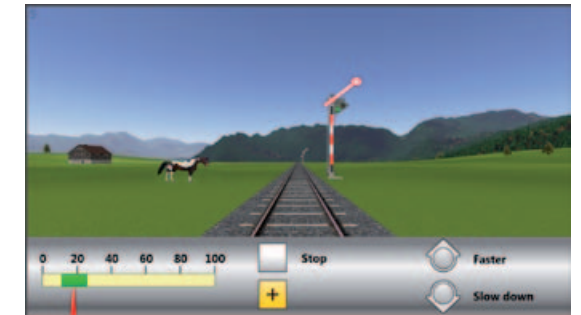
The GEAU module is designed for divided attention training. Several stimuli have to be observed simultaneously, as is often demanded in everyday life. Like a train driver, the client has to monitor the driver's cab, regulate the speed and react to different signals during the train ride.

....

Indications: Disorders in divided attention occur with almost all types of diffuse brain damage (caused by e.g. intoxication or alcohol abuse) as well as with local damage of the right hemisphere, especially of parietal parts. Affected clients have difficulties in focusing attention to multiple objects at the same time.

Task: A driver's cab is shown on the lower part of the screen. The clients can thus observe the railway as if looking through the windscreen of a driver's cab. They must react to controls in the cab and to relevant objects on the railway.

Training material: The driver's panel contains a speedometer, a so-called 'Deadman's switch' and the 'emergency stop lamp'. On the speedometer, a 'target speed' is set, which the client must maintain. As soon as a lamp lights up, the client has to press the corresponding button on the RehaCom Panel (e.g. the stop button). If a relevant object appears on the railway, the client also has to react to it (e.g. stopping at a red signal).

VIG2 👤 6+ 📊 9 Levels 🌐 27 Languages   SUSA 👤 6+ 📊 9 Levels 🌐 27 Languages   AUFM 👤 6+ 📊 24 Levels 🌐 27 Languages   GEAU 👤 6+ 📊 14 Levels 🌐 27 Languages

20   21

Divided Attention 2

In the GEA2 module, clients have to pay attention to several external stimuli whilst driving a car. They have to observe the landscape passing in front of them as well as the car dashboard and react to acoustic information in a differentiated way.

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Indications: Disturbances in focusing on certain aspects of a task, such as reacting quickly to relevant stimuli while ignoring irrelevant stimuli. This occurs in 80% of all clients after stroke, TBI, diffuse organic brain impairment (e.g. as a result of chronic alcohol abuse or intoxication) as well as in other diseases of the central nervous system.

Task and training material: The view through the windscreen of a car as well as at the car's dashboard is simulated on the computer screen. On the left, the speedometer is shown. A green area indicates the speed the client should observe. Push the arrow key up to accelerate the car, push the arrow key down to slow down. A display indicates the remaining distance and the expired time. The aim is to drive a certain distance within a limited time. Irrelevant as well as relevant objects move towards the client. Acoustic stimuli are presented in addition.

Spatial Operations 2
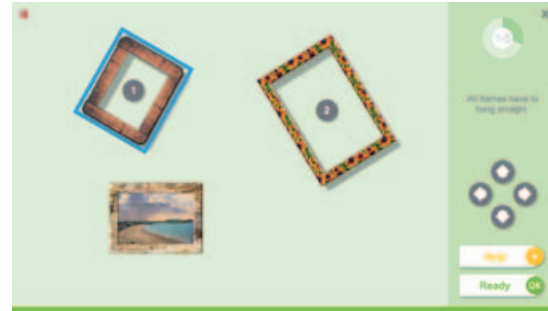
Training of up to nine different spatial perceptive performance types. Spatial memory is also involved to some degree.

....

Indications: All disorders of visual and spatial perception, especially clients with parietal lobe lesions and/or neglect.

Task: This module consists of nine different tasks, which differ greatly from one another based on the spatial perceptive performance. Usually, the training is carried out by comparing a spatial property to a reference object and adapting it. The following performance types can be trained: position estimation, angle estimation, relational estimation, one- and two-dimensional size estimation, parallelism estimation, length estimation, lines splitting and velocity and distance estimation.

Training material: Multiple photorealistic and every-day graphics are available for each task. The short-term memory for spatial perception can be trained at a higher level by hiding the reference object. The reconstruction must then be performed from memory.
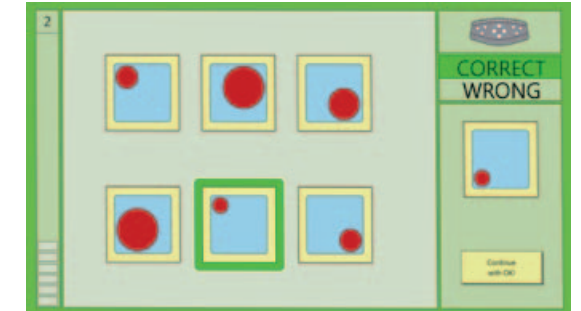
Spatial Operations 3D
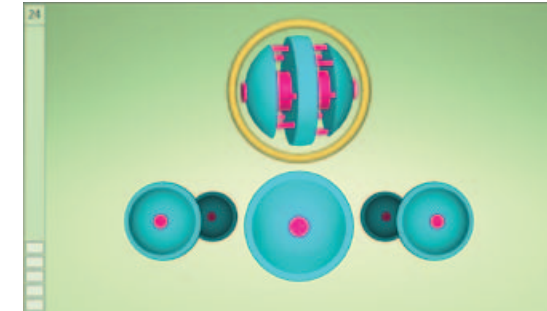
The RO3D module is used for training spatial awareness and attention. For this purpose, several three-dimensional objects are shown on the screen which must be compared to a reference object. As an option, 3D glasses can be used to create a true 3D effect.

....

Indications: For treatment of cognitive disorders, especially of spatial perception functions. In addition, the module can be used to continue attention training on a high level. Thanks to the use of non-verbal material, even clients with impairments in language use and understanding words can work with the module. The training is less suitable for clients with severe intellectual impairment or distinct attention deficit disorder.

Task and training material: In the upper half of the screen, a three-dimensional object is shown. In the lower half, three to six objects are shown which are more or less similar to each other depending on the level of difficulty. The client has to find the object in the lower panel that precisely matches the object in the upper half of the screen. All objects on the screen can be rotated in three dimensions and thus can be viewed from all sides. The training material comprises a total of 432 3D bodies in 67 groups.

Two-Dimensional Operations

The module 'Two-dimensional Operations' trains visual-constructive capabilities and spatial orientation. The task is to find the picture of a matrix which exactly corresponds to a 'comparison picture'. The corresponding picture is twisted towards the 'comparison picture'.

....

Indications: Loss of performance in visual-constructive tasks, problems with position-in-space-exploration as well as with spatial orientation in clients who suffered damage to the frontal lobe and with right hemispheric temporal and parietal damage. The training is indicated for clients with lesions in this area, with diffuse brain damage or low intellectual abilities. The training is less suitable for clients with severe intellectual impairment or distinct attention deficit disorder.

Task: Several objects displayed on the screen have to be compared with an object on the edge of the screen. The client has to find the object matching the 'reference picture' in every detail. The 'reference picture' is rotated relative to the corresponding picture in the matrix.

Training material: Geometric figures like triangles, squares, hexagons etc. are used as objects. At higher levels of difficulty, the training material becomes more complex up to a level where concrete objects and maps are depicted.

GEA2 8+ 22 Levels 27 Languages   SPOT 8+ 11 Levels 21 Languages   RO3D 8+ 24 Levels 26 Languages   VRO1 10+ 24 Levels 26 Languages

22   23

Visuo-Constructional Ability
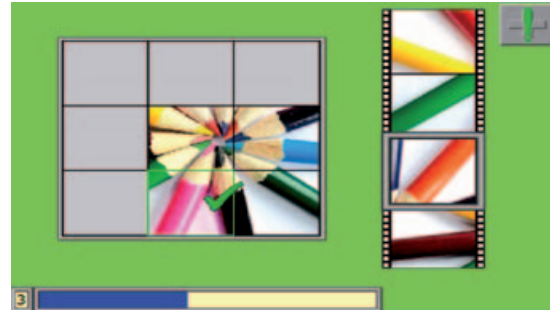
The KONS module is used for training the visual reconstruction of concrete pictures. The client has to memorize as many details as possible of a given picture. The picture is then divided into several pieces like in a puzzle. Next, the picture has to be reconstructed correctly.

··

Indications: Constructional apraxia is mainly caused by parietal lesions. Constructive abilities, attention and memory performance are required to solve the tasks, which triggers and thus trains these cognitive functions. The training is indicated for clients with light or medium performance loss in the visuo-constructive field or with generalised functional disorders. Such a loss in performance is often found in diffuse organic brain damage caused by intoxications, alcohol abuse, etc. The training is particularly suitable for clients with serious apraxia, amnesia, and concentration disorders.
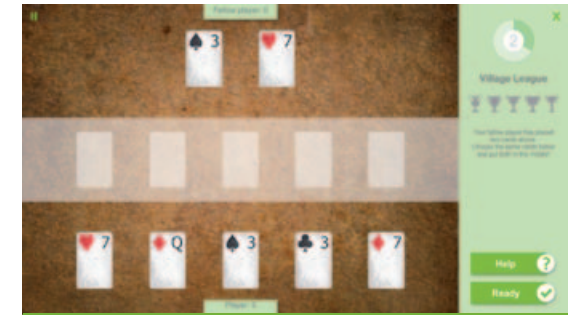
Task: The training is designed like a puzzle. First, a picture is shown, of which the client has to memorize as many details as possible. Once the client presses the OK button or after a defined time, the picture is divided into a certain number of puzzle pieces and has to be reconstructed.

Training material: For this module, photographs and drawings are used, e.g. houses, faces, everyday objects or paintings. The pictures appear on the screen in very high resolution.

Memory

Memory impairment occurs both after brain damage and after psychiatric illness. A distinction is made between different forms of memory (e.g. working, short-term, long-term memory).

In most cases, the recording and permanent storage of new information is impaired, while the retrieval of previously stored information is maintained. Such memory deficits often have serious consequences for affected patients. These can be lessened through training, and in particular through providing compensation strategies.

Working Memory

This training reinforces the ability to remember information and to manipulate it. Maintaining attention and the resistance to interference play a central role.

··

Indications: The module is suited for clients with mild to moderate working memory disorders after neurological and psychiatric disorders, as well as for the training of complex attention and executive functions. The training is not indicated for severe disorders of the selective attention and short-term memory.

Task: Depending on the level of difficulty, the client has to remember an increasing number of playing cards (memory system), select them despite the presence of different distractors (selective attention) and later mentally manipulate them (central executive). The selection of optional modifiers makes it possible to set priorities and account for individual limitations.

Training material: A complete deck of cards (52 cards) with French, German or coloured cards is used. The training material is complemented by distractors on the cards, distractors for delayed retrieval and a reward system to support motivation. The training includes 70 levels.

Memory Strategy Training

The module introduces and reinforces learning strategies to improve the memorisation and retrieval of Information.

....

Indications: The training is suitable for clients with light and moderately severe learning ability disorders.

Task: The task is to memorize terms that are displayed on the monitor. These are either presented as pictures or as words. With the help of an offered learning strategy (visualisation and storage on a body route, or visualised writing of a word) the terms have to be memorized and recognized after a simple distraction task.

Training material: Approx. 200 objects are displayed as high-resolution photos or words in 18 levels. The two different learning strategies are taught as tutorials.

Memory for Words
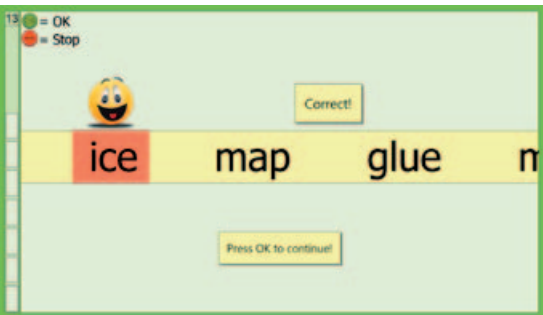
This module trains the ability to learn and remember words. During the learning phase, a certain number of words is shown on the screen. After the client has memorized these words a conveyor belt is shown with words moving along it. The client's task is to identify the learned words.

....

Indications: Impairment of vocabulary and reduced recognition performance, especially for clients in the early stage of amnestic syndrome. This occurs in persons with diffuse cerebro-organic damage and left hemispheric or bilateral lesion (especially of the limbic lemniscus with damage of the thalamic parts). Also suitable for clients with functionally caused impairments.

Task: During the learning phase, the client has to memorize a list of words (between 1 and 10 words). As the level of difficulty increases, the number of words in the list as well as the difficulty of the words grow. The words presented during the learning phase must then be selected from a number of different (irrelevant) words.

Training material: The words appear big and clearly visible on the screen. The movement of the words across the screen happens continually and fluently. The speed of the words "rolling by" can be adapted.

Figural Memory
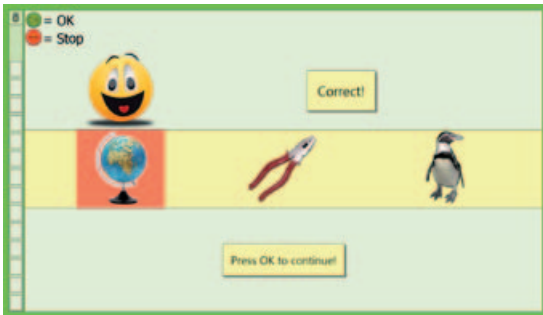
This module is used for training the long-term non-verbal and verbal memory (working memory). The client has to memorize specific (nameable) objects. After the learning phase, terms will appear much like on a conveyor belt. The client has to press the OK button whenever they recognize an object.

....

Indications: All memory disorders (especially disorders of the working memory) linked to verbal and nonverbal contents. The training module is also suitable for clients with an impaired ability to name objects as well as with difficulties in conceptual classification (organically or functionally caused).

Task: At the beginning, pictures of concrete objects are shown. The client has to memorize the terms associated with these objects. The client completes the learning phase by pressing the OK button. After that, different terms move across the screen from the left to the right. Whenever the term for an object shown during the learning phase passes through the marked area, the client must press the OK button.

Training material: About 200 pictures of concrete objects, 100 of which have a high classification safety. It is possible to adjust the speed of the terms moving by. This ensures that clients (and children) with a different reading speed can use this module for training.

Verbal Memory

The VERB module aims to improve the short-term memory of verbal information. For this purpose, short stories are displayed on the screen. The clients have to memorize all details in the story. Afterwards, they must reproduce them when asked by the programme.

....

Indications: Disorders or impairments of the short-term or medium-term verbal memory. These might occur in almost every case of diffuse brain damage (dementia, alcohol abuse, etc.) as well as in bilateral or left-hemispheric lesions of different aetiology.

Task: A short story is shown on the screen. The client is asked to memorize as many details of the story as possible (names, numbers, events, objects). The learning phase is completed by pressing the OK button. After that, the client must answer questions about the content of the story.

Training material: More than 74 short stories are available. Depending on the setting, either the computer or the therapist selects a story for the client. The pool of stories can be extended by means of an integrated editor.

| LEST | 👤 10+ | 📊 18 Levels | 🌐 26 Languages | WORT | 👤 6+ | 📊 30 Levels | 🌐 27 Languages | BILD | 👤 6+ | 📊 9 Levels | 🌐 27 Languages | VERB | 👤 10+ | 📊 10 Levels | 🌐 27 Languages |

26   27

Topological Memory

The MEMO module trains the topological memory. Like in a memory game, the client has to memorize the position of cards and pictures (e.g. books, cutlery, television, camera, etc.) or geometric figures.

....

Indications: All memory disorders or impairments relating to verbal and nonverbal contents. Amnestic syndromes can be observed for all diffuse cerebro-organic diseases (dementia, intoxications, chronic alcohol abuse, etc.) as well as for all left-sided or bilateral lesions of the medial or basolateral limbic lemniscus. Furthermore, vascular diseases, TBI or brain tumors in prefrontal, temporal or parietal cortical areas can lead to memory deficits.

Task: In the learning phase, a variable number of cards (depending on the level of difficulty) with concrete pictures or geometric figures are displayed on the screen. The client has to memorize the position of the pictures. After a preset time – or manually by pressing the OK button – the pictures of the matrix are turned face down. The client must find the picture matching the one indicated on the right side of the screen.

Training material: A total of 464 pictures of concrete objects, geometric figures, and letters are available. The number of simultaneously displayed cards varies from 3 to a maximum of 16.

Physiognomic Memory
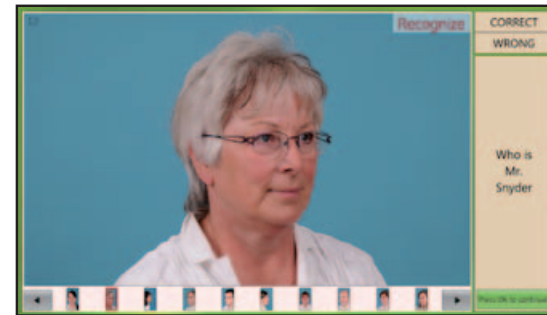
The purpose of the GESI module is to train facial recognition. The faces are shown from different sides, and clients have to decide whether they have already seen this person before. At higher levels of difficulty, additional verbal information needs to be memorized about the person.

....

Indications: Suitable for clients with visual prosapagnosia where the ability to recognize faces and to connect meaningful associations to them is impaired or lost. The problem can also be related to memory components that are responsible for remembering faces. The training is indicated for all clients with a right-sided or bilateral lesion of the temporal lobe of different aetiology in which the mentioned impairments are observed.

Task: During the learning phase, the client has to memorize a specific number of faces. They are then asked to pick these faces out of a 'line-up' of different faces. At higher levels of difficulty, a name and a profession are also shown. The client now has the task to single out the face associated with the name or the profession.

Training material: A total of 47 persons have been photographed from four different angles. The pictures are of photo quality. It is possible to add photos from the client's environment via an integrated editor.

Executive Functions

Executive functions is a collective term for various higher-function mental processes associated with action planning or goal-oriented behaviour.

Patients with deficits in executive functions show difficulties in planning and adhering to rules, often have an underdeveloped capacity to adhere to social norms and suppress unwanted behaviour. Executive functions are closely linked to the frontal brain. Neurological diseases or injuries of the frontal brain as well as psychiatric disorders (e.g. schizophrenia) cause patients to exhibit abnormalities.

NEW revised Logical Reasoning

The module LODE aims to improve logical thinking (reasoning). The client has to continue rows of symbols that order is based on logical rules.

....

Indications: Deficits in reasoning. Those losses of performance often occur in clients with chronic alcohol abuse, dementia, as well as schizophrenia.

Task: From several symbols (pool of answers), the client has to find out the one that correctly continues a given sequence of symbols.

Training material: A sequence of pictorial and abstract symbols of different shape, colour, and size are displayed on the screen being in a regular relation to each other. The goal is to continue this sequence. If the answer is wrong, special pieces of information about the type of error (shape, colour, and/or size) are given. With increasing difficulty, several levels of abstraction are to consider.

NEW: The tasks were visually extended through the distinction of pictorial and abstract forms. In terms of content, there are three new tasks added: assign categories, continue series of numbers and complete matrices. Thus, the module is significant more varied for the users and less schematic solvable, than before.

Shopping

The EINK module provides a training environment in which the client has to solve tasks related to everyday life in a supermarket. The aim of the training is to improve planning and execution.

....

Indications: Deficits in working memory and difficulties in concept development and action planning as a result of TBI, stroke, cerebral tumor surgery or cerebral haemorrhage. The module can also be used for maintaining the mental performance of elderly people as well as for children aged 10 and up. Not suitable for clients with attention deficits.

Task: Clients are provided with a shopping list of articles that they have to look for in a supermarket and put into a trolley. When all articles are in the trolley, the client can leave the supermarket by using the 'cash' button. At a certain level of difficulty, the module places additional demands on the client's mathematical abilities (a certain amount of money is specified, the products are marked with prices, etc.).

Training material: The training module currently uses more than 100 articles illustrated photo-realistically (food, household objects, etc.). These articles appear on shelves from which the client must choose them. The training programme includes a voice output, which means that all articles are named when selected. Two shops can be chosen: supermarket or hardware store.

Plan a Vacation

The PLAN module is about planning daily errands. The aim is to improve executive functions respectively to establish strategies for planning. 'Plan a Vacation' makes demands on basic and – especially at higher levels of difficulty – more complex cognitive skills.

....

Indications: Disorders of cognitive functions, especially of planning skills. The ability to plan and to organise everyday life is one of the most complex human skills. It can be affected by any type of brain damage, especially damaged frontal structures or diffuse cerebral damage. The Plan a Vacation module can also be used for training memory skills. It is not recommended in the treatment of very severe amnestic disorders. The presence of a therapist is strongly recommended for seriously impaired clients.

Task: The training task is to prioritise a list of errands in the best possible order. For this purpose, a map is shown on the screen with different buildings and roads from bird's-eye view. Clients have to 'visit' one building after another according to their time schedule and enter these into their diary. There are three different request types:
· Note priority
· Minimize travelling time
· Maximize the number of completed tasks.

Training material: Plan a Vacation provides an almost endless number of different tasks since new combinations of tasks can be generated randomly.

Calculations
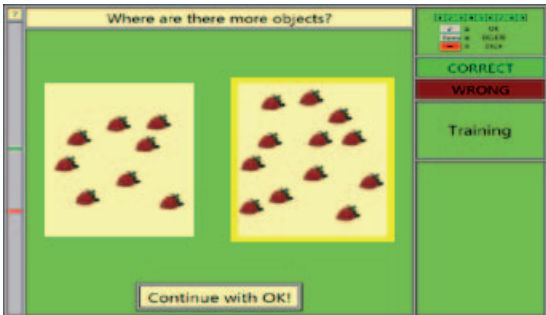
The CALC module supports clients in improving their arithmetic skills. Depending on the type of disorder, basic or more complex tasks are trained. Calculating with money is included.

....

Indications: Impairments of arithmetic cognitive skills. Disorders of cognitive functions can be diverse. They range from reduced basal disorders when estimating sizes and quantities to problems in applying basic arithmetic operations and difficulties in solving complex mathematic problems.

Task: The training offers a high diversity of tasks. The client starts with simple comparisons of size or quantity and with sorting tasks. After that, basic arithmetic operations, such as adding and subtracting, are trained, both mentally and in writing. At higher levels of difficulty, the client is instructed in very realistic situations of handling money. Clients have to offer the exact amount of money, give change or check their own change. Finally, multiplication and division tasks are available.

Training material: Size and quantity tasks are trained using pictures of simple objects until the client moves on to calculations with numbers. The carry-over in written addition and subtraction is indicated using small numbers. Pictures of realistic banknotes and coins are used in money handling exercises.

| EINK | 10+ | 18 Levels | 26 Languages | PLAN | 10+ | 55 Levels | 26 Languages | CALC | 8+ | 42 Levels | 26 Languages |

Visual Field

Visual field loss is a common side effect of stroke or hypoxic brain injury.

Visual information is transmitted from the eye via the optic nerve and optic radiation to the occipital lobe for processing. If these nerve tracts are damaged, the necessary visual information no longer reaches the lobe and cannot be processed, resulting in a visual field loss. Those affected have difficulties in reading and visual orientation. Targeted training can significantly reduce the impact on everyday life.

Saccadic Training

The SAKA module is developed for clients with visual neglect phenomena or hemianopia. Clients are instructed to push a corresponding reaction button when a figure appears left or right from the centre.

Indications: Impairments in visual exploration on one half of the visual field. These occur in extended cerebral infarcts in the area of distribution of the middle or posterior cerebral artery neglects. Other organic brain disorders can also cause these functional impairments.

Task: The client is shown a horizon on the screen with a very simple structured landscape. In the middle of the screen, a big sun is displayed. At irregular intervals, an object appears to the left or right of the sun. Whenever clients notice an object, they have to press the corresponding reaction button (left or right arrow key of the RehaCom panel).

Training material: A horizontal line is displayed on the screen. At easier levels, a sun is indicated in the centre to aid orientation of the client. At irregular temporal intervals, different objects or symbols, e.g. animals, cars, bikes, motorcycles etc., appear on the horizontal line. At higher levels of difficulty, the symbols become smaller, the horizon disappears, and additional deflecting stimuli are shown and fade again.

Exploration2

The module serves the treatment of impaired visual exploration and improves the detailed analysis capability.

Indications: The training is recommended for clients with homonymous visual field impairments, impaired visual exploration or visual neglect.

Training task: There are four different types of tasks. In the 'Search for missing numbers' task, numbers scattered around the screen must be located one after the other and the missing numbers must be identified. In 'Search objects', certain objects embedded in scenes must be found and clicked on. In the 'Search and count object' task, the number of presented objects must be determined. The 'Superimposed figures' task is to for train detailed analysis skills. Simple figures are presented in a superimposed manner. The patient must decide which basic forms make up the superimposed figure.

Training material: There are many detailed images and scenes available for the 'Find object' and 'Find and Count objects' tasks. The 'Superimposed figures' task contains many simple geometric figures that are depicted in varous colours or in black.

Restoration Training
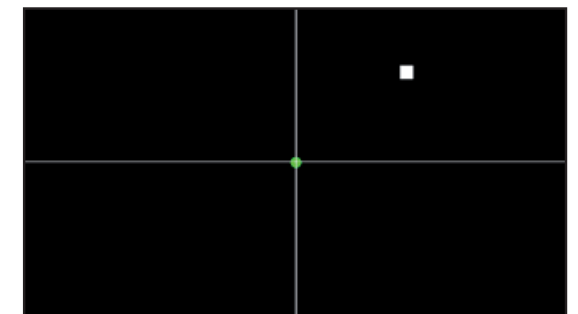
RESE is intended for the improvement of visual functions in clients with impaired vision (e.g. Hemianopia). In the months immediately following the lesion, some recovery is possible and this module encourages and strengthens the restitutive process.

Indications: Neurological visual impairments such as Hemianopia and resulting perception, processing disorders, reading and attention problems, and visual neglect.

Task: A fixation point is displayed on the screen. When a light stimulus appears, the client should respond by pressing a key (mouse click, keyboard, etc.). The client has to react when the fixation point changes colour and respond to every visible light stimulus. If the client misses a stimulus, it will cease, and then reappear.
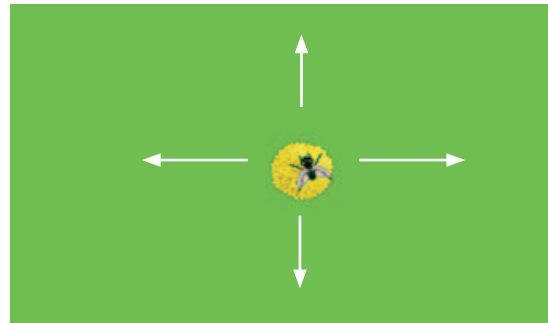
Training material: The light stimulus is displayed by using a specific algorithm. The stimuli move and appear in different positions on the screen, including locations close to and beyond the border of the impaired side of the visual field. Repeated and intensive activation of this area will encourage a positive change in the visual field over time. Audio feedback/signals will provide feedback to help sustain the client's attention. RESE is auto-adaptive, changing the difficulty according to the client's performance. It is recommended to use the chin rest to stabilise the head and maintain a consistent distance from the screen.

SAKA · 6+ · 34 Levels · 27 Languages   EXO2 · 6+ · 18 Level · 24 Languages   RESE · 8+ · 1 Level · 27 Languages

Visuo-Motor Coordination

WISO is an important tool for the rehabilitation of clients with disorders in visuo-motor coordination. A cursor and a rotor are displayed on the screen in different shapes and colours. The client has to move the cursor to the centre of the rotor with the joystick and follow the movements of the rotor.

Indications: Motor cortex damage (frontal lobe) that causes deficits in the control of fine motor skills. Such deficits are observed most prominently in coordination disorders of hand and finger movements. In many cerebro-organic diseases and damages – e.g. cerebral insults, haemorrhage, spacious tumours, craniocerebral trauma etc – visuo-motor functions are also affected. The training is indicated for all disorders of fine motor skills.

Task: On the screen, a circular disc (rotor type abstract) and a dot are shown in two different colours to provide for strong visual contrast. The client has to move the dot into the circular disk by means of the joystick or mouse. The disk will then start moving along an unpredictable path. The client has to attempt to follow the movement with the joystick (represented by the dot). In 'rotor type concrete', an item such as a flower is used instead of the circular disk, and a beetle or bee replaces the dot.

Training material: The training is based on a large circular disk that traces a given movement and a dot that can be moved with the joystick or mouse. In order to make the training more variable and interesting especially for children, 25 pairs of pictures are used as rotor/cursor in the 'concrete' mode.

WISO | 6+ | 96 Levels | 26 Languages

Visuo-Motor Coordination

Human movements are based on the coordination of different motor, visual and proprioceptive systems.

In numerous everyday 'fine-motor' activities, such as the use of cutlery or tools, precise coordination of eyes, head and hands is essential. During motor action, visual control plays an important role – especially in the learning stage of movement sequences. Brain damage to the motor or sensory area, but also to the spatial or visual system, can seriously hamper eye-hand coordination.

Use of PC or RehaCom Keyboard

Each therapy module is optimized to be used with the RehaCom patients keyboard.
This special keyboard is large, robust, easy to handle and understand.
So every patient, even with severe cognitive or motor deficits can be treated with RehaCom.

A normal PC Keyboard can be used with the following mapping. A set of self-adhesive stickers is available from RehaCom to mark your PC Keyboard.

Note: **To be able to train RehaCom, please make sure that patient's keyboard or dongle are connected to your computer.**
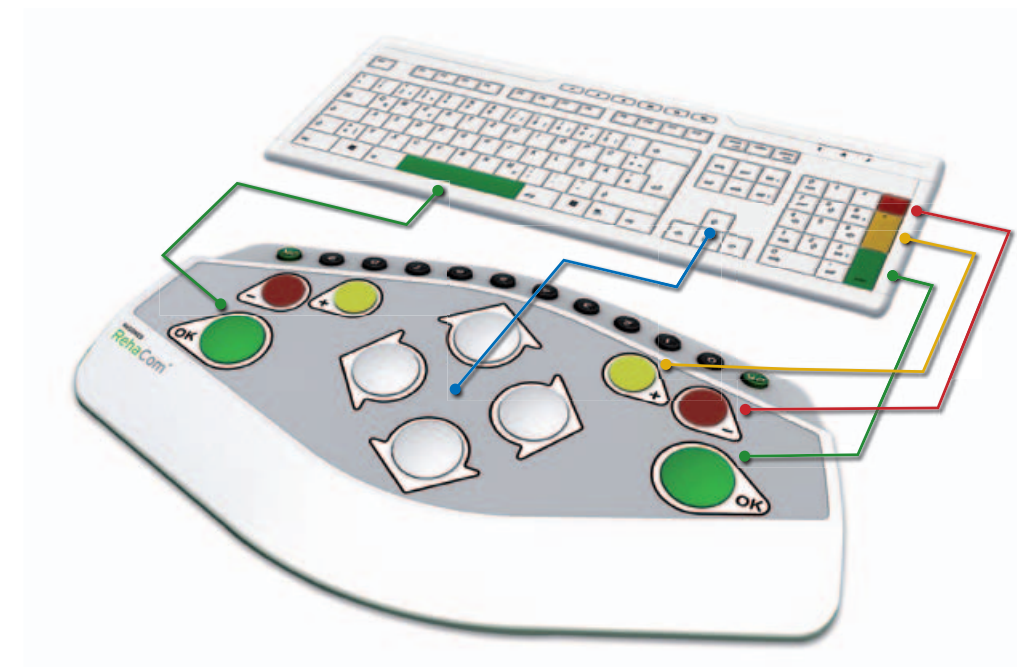
RehaCom Keyboard	PC Keyboard
"OK" buttons	left = space bar ; right = return ; mouse click
"Arrow" buttons	cursor keys
"Minus" buttons	minus-key in the numeric keypad
"Plus" buttons	plus-key in the numeric keypad
„number 0…9" buttons	number keys

Module overwiev by clinical picture and degree of severity

STROKE/TBI Severe Traumatic Brain Injury / Early Phase of Rehabilitation	ALTA	Alertness Training
	AUFM	Attention and Concentration
	REVE	Reaction Behaviour
	WOME	Working Memory
	WORT	Memory for Words
	BILD	Figural Memory

STROKE/TBI Severe Traumatic Brain Injury/ Early Phase of Rehabilitation + Neglect/Visual Field	ALTA	Alertness Training
	AUFM	Attention and Concentration
	REVE	Reaction Behaviour
	BILD	Figural Memory
	WORT	Memory for Words
	WOME	Working Memory
	SAKA	Saccadic Training
	EXO2	Exploration 2
	RESE	Restoration Training

STROKE/TBI Moderate Traumatic Brain Injury/ MID Phase of Rehabilitation	AUFM	Attention and Concentration
	REA1	Responsiveness
	GEAU	Divided Attention
	VRO1	Two-dimensional Operations
	WOME	Working Memory
	LEST	Memory Strategy Training
	VERB	Verbal Memory
	LODE	Logical Reasoning

STROKE/TBI Mild Traumatic Brain Injury	GEA2	Divided Attention 2
	RO3D	Spatial Operations 3D
	WOME	Working Memory
	VERB	Verbal Memory
	LEST	Memory Strategy Training
	PLAN	Plan a Vacation
	EINK	Shopping

ADD/ADHD	AUFM	Attention and Concentration
	SUSA	Sustained Attention
	REVE	Reaction Behaviour
	GEAU	Divided Attention
	GEA2	Divided Attention 2
	WOME	Working Memory
	PLAN	Plan a Vacation

MULTIPLE SCLEROSIS	REVE	Reaction Behaviour
	REA1	Responsiveness
	GEAU	Divided Attention
	GEA2	Divided Attention 2
	WOME	Working Memory
	VERB	Verbal Memory
	BILD	Figural Memory
	SPOT	Spatial Operations 2
	VRO1	Two-dimensional Operations
	EINK	Shopping

DEMENTIA (mild)	ALTA	Alertness Training
	AUFM	Attention and Concentration
	REVE	Reaction Behaviour
	WOME	Working Memory
	GESI	Physiognomic Memory
	WORT	Memory for Words
	BILD	Figural Memory
	VERB	Verbal Memory
	MEMO	Topological Memory
	EINK	Shopping
	LODE	Logical Reasoning

DEPRESSION	ALTA	Alertness Training
	REVE	Reaction Behaviour
	AUFM	Attention and Concentration
	SUSA	Sustained Attention
	GEAU	Divided Attention
	GEA2	Divided Attention 2
	WOME	Working Memory
	VERB	Verbal Memory
	LODE	Logical Reasoning
	EINK	Shopping
	PLAN	Plan a Vacation

SCHIZOPHRENIA	AUFM	Attention and Concentration
	REVE	Reaction Behaviour
	VIG2	Vigilance 2
	GEAU	Divided Attention
	GEA2	Divided Attention 2
	WOME	Working Memory
	VERB	Verbal Memory
	LODE	Logical Reasoning
	EINK	Shopping
	PLAN	Plan a Vacation

GERIATRICS	AUFM	Attention and Concentration
	REVE	Reaction Behaviour
	GEAU	Divided Attention
	WOME	Working Memory
	LEST	Memory Strategy Training
	GESI	Physiognomic Memory
	WORT	Memory for Words
	BILD	Figural Memory
	VERB	Verbal Memory
	MEMO	Topological Memory
	EINK	Shopping
	LODE	Logical Reasoning

The overview is for orientation purposes only. It isn't a substitute for a neurological assessment or screening. Please note that RehaCom is a complete software program and therefore only available with all therapy modules and screenings.

Supervised Home Training via Internet

RehaCom home training via internet makes professional rehabilitation services available to people who have limited or no access to such services e.g. people with mobility restrictions or in rural areas.

For daily training at home, the therapist creates a therapy plan that is individually adjusted to the client's needs. The client-specific treatment plan is stored on an internet platform. Whenever the client wants to train, the RehaCom system downloads the therapy plan, the client performs the training and the system then saves training results automatically.

This allows the therapist to evaluate the results promptly and supervise the performance. Therapists can adapt the therapy plan optimally to the individual needs and the actual performance of the person concerned and can respond to changing performance directly.

The integration of caregivers is possible and can be very motivating for clients, particularly those with severe cognitive disorders. Family support is essential for promoting long-term active participation in daily life.

Benefits of home training:

· Improved outcomes thanks to continuing
  cognitive rehabilitation at home
· Increased independence in the home
  environment
· Increased self-confidence and self-esteem
· Better vocational opportunities

Scientific Partner

We would like to thank all partners, employees and teams who have been involved in the development of RehaCom and continue to be involved in this valuable work. Any successful and approved therapy system, such as RehaCom, strongly relies on excellent cooperation.

Dr. Stefan Frisch	· Clinical Neuropsychologist (GNP), Psychological Psychotherapist, University Hospital Frankfurt/M
Prof. Dr. Joachim Funke	· Department of Psychology, University of Heidelberg
Dipl.-Psych. Andreas Knop	· Clinical Neuropsychologist (GNP), Psychological Psychotherapist, Psychotherapeutic practice in Hannover and Hamburg
Prof. Dr. Steffen Moritz	· Clinical Neuropsychologist (GNP), UKE Hamburg, Clinik and Polyclinic for Psychiatry and Psychotherapy
Prof. Dr. Sandra Verena Müller	· Clinical Neuropsychologist (GNP), Psychological Psychotherapist, Ostfalia University of Applied Science
Dr. Volker Peschke	· Clinical Neuropsychologist (GNP), Psychological Psychotherapist, Neuropsychological Private Practice
Dipl.-Psych. Michael Preier	· Clinical Neuropsychologist (GNP)
Dipl.-Psych., Dipl. Soz.-Päd. Petra Rigling	· Psychologist
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Dr. Peter Weber	· HASOMED GmbH, Magdeburg
Dipl.-Psych. Juliane Weicker	· Clinical Neuropsychologist (GNP), University Hospital Leipzig
Alfred Wilbertz	· Clinical Neuropsychologist (GNP), Psychological Psychotherapist, Geriatric Clinik at Luisenhospital Aachen

All RehaCom modules are continously revised and improved with the help of a 10-headed neuropsychological advisory board. Many thanks to all involved.

Global RehaCom Distribution Partners
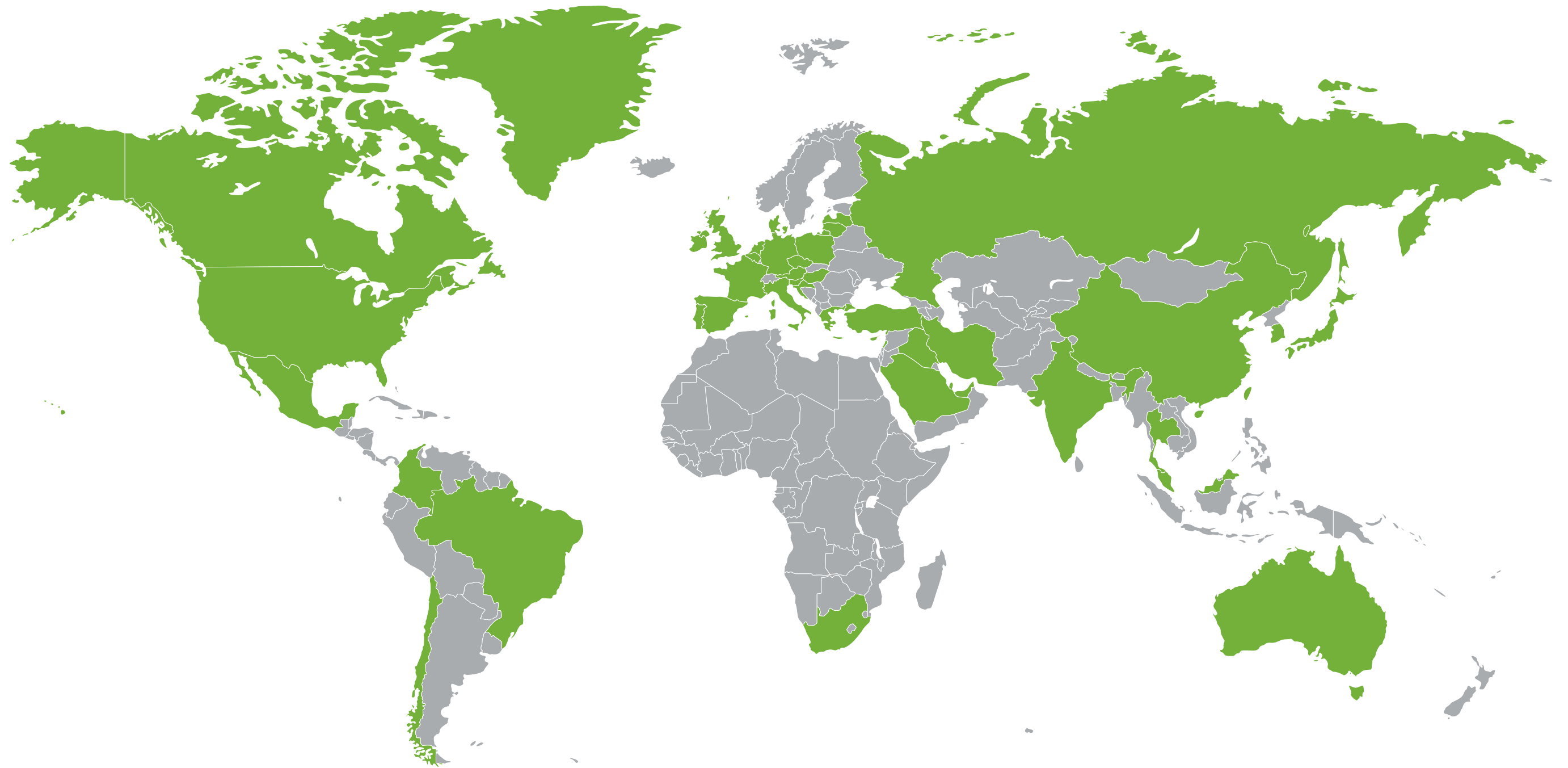
Many partners across the globe are involved in research, product development, distribution and rehabilitation. Please contact us and we will bring you in touch with your local HASOMED distribution partner.

export@hasomed.de

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Testimonials

Dr. phil. Hendrik Niemann

Head of Department of Neuropsychology Leipzig, Germany
Chairman of the German Society for Neuropsychology until 2013

"In our inpatient rehabilitation centre, we have been using the RehaCom programmes for many years very successfully with our neurological patients. For example, the programmes for exploration, saccadic eye movements and reading are very helpful for patients with visual field defects. The default criterion for moving patients back and forth through the difficulty levels of each task is self-explanatory and can be individually adjusted if necessary. The feedback while performing a task as well as the graphic profile at the end of each session helps patients and therapists monitor progress. Another important feature of RehaCom is the special keyboard, which is easy to use by patients with motor impairments. In summary, the RehaCom system is highly recommendable for the remediation of neuro-cognitive deficits and should be integrated in any cognitive rehabilitation concept."

Prof. Dr. Sandra Verena Mueller

Chair of Rehabilitation and Integration at the Ostfalia University of Applied Science Braunschweig/Wolfenbuettel, Germany

"As a specialist for impairments of executive functions, I developed three therapy modules in cooperation with the company HASOMED. The cognitive fields of attention, memory and executive functions are trained in the late phase of rehabilitation. The tasks of these modules have a deep practical orientation, which helps patients return to work. Many of my colleagues are successfully using RehaCom in their therapy owing to its user-friendly design and solid scientific background."

Dr. rer. nat. Hartwig Kulke

Specialty Hospital/Department of Neuropsychology
Herzogenaurach, Germany

"As head of the neuropsychology department, I've been treating patients after Stroke and TBI for many years now. We use RehaCom very successfully. Not only my personal experience but also numerous studies demonstrate the effectiveness of the treatment. The therapy with RehaCom is user friendly and allows for adjusting the difficulty of the tasks to the patient's abilities with great precision. Based on my clinical work, I treat patients through ongoing supervised home training. This way, the teletherapy with RehaCom allows cognitive training to continue as long as required for each patient."
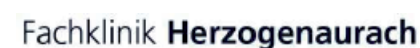
Dr. Angelika Thoene-Otto

Clinical Neuropsychologist at the University of Leipzig,
Day Care Clinic for Cognitive Neurology

"RehaCom Cognitive Training programs are being developed according to recent scientific findings and are continuously updated. This means we can be sure that we are treating our patients with latest state-of-the-art materials. The programs are an integral part of the functional training within our neuropsychological therapy in an outpatient unit for brain injured patients of different etiologies. Patients as well as therapists appreciate the highly user-friendly interfaces, the adaptive way of increasing task difficulty and the motivating feedback on progress."

Dr. Volker Peschke

Clinical Neuropsychologist, Supervisor and Psychotherapist, Neurological Clinic Therapy Centre Burgau (Bavaria)
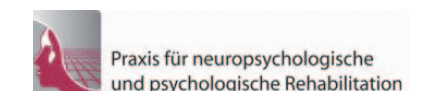
"Dr. Peter Weber, CEO of HASOMED and I have known each other for more than 20 years. Back when we met, both of us were involved in research for the development of medical devices – hence a close and innovative cooperation began. In the early nineties, I started to work with RehaCom and treated my neglect patients with the SAKA exploration training on a 32-inch TV screen. In the following years, HASOMED developed more and more hands-on RehaCom training modules, which enabled my clients to cope with daily activities again. The RehaCom development team always appreciated requests, ideas and constructive criticism resulting from the therapeutic use of RehaCom. I always enjoy our conversations and discussions about further developments and improvements. It is my personal conviction that both, clients and therapists, benefit from training with RehaCom."

Dr. Andrew Barnes

Clinical Neuropsychologist,
Bad Ems, Germany

"RehaCom offers excellent opportunities for delivering individualized cognitive training programmes to brain-injured patients in their homes. Through the internet, patients can be monitored and supervised in their regular training. As a therapist working with outpatients, I greatly appreciate that this approach enables time-consuming cognitive exercises to take place outside of weekly therapy sessions. This leaves me with more time for face-to-face therapy to deal with other important rehabilitation issues such as emotional adjustment."

MICHELS KLINIKEN SACHSENKLINIK BAD LAUSICK

Ostfalia Hochschule für angewandte Wissenschaften

Fachklinik **Herzogenaurach**

Universitätsklinikum Leipzig Medizin ist unsere Berufung

Therapiezentrum **Burgau**

Praxis für neuropsychologische und psychologische Rehabilitation

Prof. Dr. phil.
Helmut Hildebrandt

Centre of Neurology Bremen, Germany and Institute of Psychology at the University of Oldenburg, Germany

Therapist
C. Wartenberg

RehaCom User,
Magdeburg Neurological Rehabilitiation Center

"I have known the RehaCom software as an instrument for neuropsychological rehabilitation since I entered this field. Over the years, an increasing number of specific training modules have been added to it and we use it regularly in our unit for severely and mildly impaired patients. I can highly recommend its use in clinical practice because it is easy to use, specifically trains impaired functions, adapts automatically to the level of the patients and has proven to be efficient."

Our center offers a wide range of inpatient and outpatient therapies for neurological rehabilitation. Upon intake, cognitive deficits are assessed and a cognitive rehab therapy plan is developed. Most of the patients show deficits in attention, concentration, memory, visual neglect, executive functions, spatial and visual perception, and other visual field deficits. All of these can be trained using the RehaCom software.

The clinic has 7 therapy computers, plus a projector for visual field training. After an introduction, patients work independently with RehaCom. Training can be customized to the specific deficits and abilities of any patient, and the software tracks performance for each task, adjusting the level of difficulty accordingly. The therapist monitors the training, and can work with multiple patients at once, concentrating on those who need the most support. Training results are saved automatically and reviewed afterwards. For patients with more severe impairments, we provide individual training. With an experienced therapist, the RehaCom software can be used to train numerous, very basic cognitive functions.

Our RehaCom database is stored on a network server, so patients can work at any therapy station in the clinic. Patient data and training results are instantly available, and each training session begins where the last one left off. The new training results are then stored in the centralized database. I have worked with RehaCom now for 12 years, and during that time I have watched the system develop. The company has always been open to suggestions, and looking for ways to improve the software. Patients with cognitive disorders are a difficult clientele, but of all systems I know, RehaCom is the most customizable to our patients needs.

Additional information

Orders, Questions and Feedback

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E-mail: info@rehacom.com
Web: www.rehacom.com

RehaCom in a Global Network

Many partners across the globe are involved in research, product development, distribution and rehabilitation. Please contact us if you would like further information.

System Requirements

Processor:	Intel Core i3, i5, i7 of 6th generation or comparable
System memory:	4GB RAM
Graphics card:	DirectX10.1 capable; Intel HD3000 or better (at least 2GB grafics memory)
Hard drive:	100GB free space
Sound card:	available
Resolution:	1024x768px (if scaling is higher than 100%, vertical resolution must be 1080px)
DVD drive:	for installation of the software (also possible via USB drive or download)
Operating system:	Windows 7,8 or 10

More HASOMED products

RehaMove
Movement with functional electrical stimulation (FES)

www.rehamove.com

RehaIngest
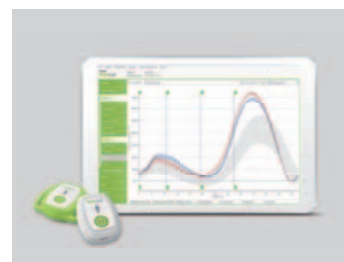Swallowing evaluation and therapy

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