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

RehaCom® cognitive therapy brought to you by Pearson

- 20+ training modules
- 20+ languages
- For inpatient and outpatient rehab phases
- For core cognitive fields
- Self-adaptive and motivating for clients
RehaCom provides the busy clinician deficit-specific, targeted, evidence-based, patient-centered treatment that clients can use with minimal supervision. Patient progress and gains 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. All of these factors result in a higher ROI for healthcare institutions.

**Cognitive Therapy in Rehabilitation**

Cognition works as an "interface" between the brain and its environment, directing the mental processes involved in gaining knowledge and understanding. These processes are essential for completing everyday activities, and loss of these functions may seriously reduce a person's quality of life.

The effects of brain damage—whether caused by stroke, traumatic brain injury (TBI), tumors, or multiple sclerosis—occur both physically and mentally. These impairments vary widely from person to person and depend on many factors, including an individual's personality and the severity of the brain damage.

The aim of cognitive rehabilitation is to minimize the damage, to regain lost skills, to develop compensation strategies, and to help the client to progress to the highest possible level of independence.

**Modular structure**

The 20+ modules of RehaCom include therapy targeted to discrete cognitive functions as well as specialized and more complex modules for treating several affected cognitive functions. Starting at a low level of difficulty, the client can make progress at a pace that's comfortable and appropriate for them.

**Adaptivity and Individualization**

For most therapy modules RehaCom automatically adapts the complexity of each task to the client's actual performance. The program provides the user with a "just right" challenge—the requirements are neither too high nor too low—which keeps the user motivated and helps avoid frustration. For other modules like visual field restoration training, the clinician can adjust the training parameters to meet the training needs of each patient.

**Error-specific Feedback**

The computer functions as a neutral observer, making objective comments on the client's performance and giving, if necessary, error-specific feedback. This gives clients higher self-confidence and can help mitigate the risk of side effects often caused by brain damage, such as depression or low self-esteem.

**Continuity and control**

RehaCom saves all therapy results. A new therapy session starts where the last one has been finished. Thus, it is possible to control the course of therapy and to adjust therapy targets and goals based on each individual's progress. The therapist has the ability to analyze all client data to further develop therapy strategies.

**Effectiveness**

Numerous studies scientifically support the effectiveness of RehaCom.

Visit PearsonClinical.com/RehaCom to find all the latest related research.

**Efficiency**

With RehaCom, many clients can train independently. At the beginning and at the end of a session, the client and the therapist determine the therapy goal and discuss the results face to face. Since RehaCom lets clients complete their cognitive therapy independently, the therapist can spend less time building up cognitive capacities, and more time working on other goals such as developing communication strategies. Implementing RehaCom in a clinic setting also allows therapists to work with several clients at the same time.

**Evidence-based, clinically proven cognitive rehab**

Designed by experts and therapists, RehaCom® cognitive therapy provides more than 25 years of development and clinical experience.

**Age range:** 8 years–adult  
**Qualification level:** B—for use by a variety of allied health professionals in Rehab settings  
**Screening:** 9 optional cognitive screeners  
**Therapy:** 20+ computerized therapy modules for attention, memory, executive functions and visual field  
**Languages:** 20+ languages available

RehaCom is fun and it is very easy to use. I train five days a week and my cognitive abilities are going up and up! It has an incredible impact on my daily life.”
Targeted cognitive therapy is an essential tool in the rehabilitation process. Before beginning therapy, RehaCom's screening modules suggest areas of impairment and highlight which functions are still intact. RehaCom then creates a therapy plan to meet the client's specific needs, and you can define specific goals with the client to ensure their best chance at success.

RehaCom includes nine optional modules for screening the cognitive status of clients with neurological and/or psychiatric diseases.

### Screening modules

- **Alertness**
  - Measures the phasic and the tonic aspects of alertness.

- **Selected Attention**
  - Examines the ability to react in an appropriate way under timed pressure and simultaneously control behavioral impulses.

- **Divided Attention**
  - Presents divided visual and auditory attention stimuli simultaneously.

- **Spatial Numbers Search**
  - Measures basal cognitive performance, selective attention, and visual scanning.

- **Logical Reasoning**
  - Measures the ability to identify regularities, to continue series, and to draw logical conclusions.

- **Memory for Words**
  - Investigates verbal learning ability with recurring figures.

- **Working Memory and Orientation**
  - Measures visual-spatial memory span. It is also used for testing the implicit visual-memory learning and working memory.

- **Visual Field**
  - Measures the visual field, fixation accuracy, and sustained attention.

- **Visual Scanning**
  - Measures the patient's performance in exploring his visual field. Measures parallel and serial search.

### Patient-driven solutions

The rehabilitation of cognitive impairments requires continuous treatment over time, and the duration of a therapy session with RehaCom depends on the client's personal performance.

According to clinical guidelines, protocol for training may include:
- Several times a day for 10 to 15 minutes in the acute phase
- In the following 6 to 8 weeks, therapy sessions of 30 to 45 minutes about 3 to 5 times per week
- 3 to 5 times a week for about 3 to 5 months in the late phase of rehabilitation

The course of therapy can be individualized to each patient's specific needs based on module difficulty and their current ability. Most therapists start with attention therapy using RehaCom module "Attention and Concentration."

#### Start here

- **Attention and Concentration**
  - Start each new patient at Level 1.
  - If after a few rounds, the level seems too easy, press the ESC button and change “Current Level of Difficulty” to level 6; proceed with the training.

- **Alertness**
  - If Attention and Concentration is too difficult, then continue with Alertness Therapy.

- **Spatial Attention**
  - If Attention and Concentration is not challenging enough, then continue with Spatial Attention or Divided Attention.

- **Divided Attention**
  - If Attention and Concentration is too difficult, then continue with Alertness Therapy.

- **Reaction Behavior**

- **Two-dimensional Operations**

- **Responsiveness**

- **Spatial Operations**

- **Divided Attention 2**
**Therapy modules**

Modules can be assigned according to each patient’s clinical presentation as well as their level of deficit in each area: mild (M), mild to moderate (M–M), or moderate to severe (M–S). Each module has multiple levels of difficulty providing an appropriate level of challenge and therapeutic progression.

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**Key to Deficit Levels:**

- M = Mild
- M–M = Mild to Moderate
- M–S = Moderate to Severe
RehaCom offers both a comprehensive and targeted course of therapy for patients. Following from either the RehaCom screening modules or other diagnostic assessment results, the therapist can select the deficit specific modules most appropriate for the patient. In this way, therapy is always individualized.

**Attention**

**Attention and Concentration**
- Selective attention, visual scanning, focusing, shifting, and neglect

**Reaction Behavior**
- Alertness, traffic signs, impulse control, and load-carrying capacity

**Spatial Operations**
- Mental rotation, visual scanning, focusing, shifting, and neglect

**Responsiveness**
- Simple discrimination, initiation, inhibition, and differential responding

**Two-Dimensional Operations**
- Rotate and compare two-dimensional visual stimuli, focus, and sustained attention

**Spatial Operations 3D**
- Rotate and compare 3D objects, focus, and sustained attention

**Divided Attention**
- Train driving, up to 6 attention levels, and visual stimuli

**Divided Attention 2**
- Car driving, up to 8 attention levels, visual and acoustic stimuli

**Alertness**
- Intensity of attention and intrinsic alertness

**Vigilance**
- Sustained attention, assembly-line work, tracking, and targeting
Memory

- **Working Memory**: Short-term and selective memory, and mental manipulation.

- **Memory for Words**: Memorize up to 10 words in three degrees of complexity.

- **Topological Memory**: Picture cards are turned over, memorize position and content.

- **Figural Memory**: Figural content, picture-word association, captions, and aphasia.

- **Physiognomic Memory**: Memorize faces, names, occupations, and phone numbers.

- **Verbal Memory**: Recognize and identify target words from a previous presented learning list.

Executive Functions

- **Plan a Vacation**: Priorities, shortest ways, and schedule optimization.

- **Shopping**: Virtual supermarket / hardware store, shopping list, and money.

- **Logical Reasoning**: Conclusive thinking, problem solving, and series completion.

- **Restoration Training**: Stimulates the re-organization of damaged, but not destroyed, neuronal structures through intense stimulation.

Visual Field

- **Saccadic Training**: Eye movement training, hemianopia, and neglect.

- **Overview and Reading**: Parallel and sequential search on homonymous visual field losses.
RehaCom Panel

A conventional PC keyboard is sometimes inappropriate as an input device for computer-based therapies. To help clients with severe motor impairments a RehaCom panel is available.

Chin Rest / Head Rest

For visual field therapy an adjustable chin rest/head rest is recommended. This allows the client to stay in a comfortable and reproducible position in front of the monitor, remaining the same throughout the therapy session. The chin rest is adjustable in height and can be adapted for each patient. It is made of a light and stable aluminium wood construction, which can be fixed to the table with a screw clamp, making it very easy to clean.

System Requirements

To install RehaCom you need:
- Intel Core i3, i7, or comparable
- RAM: 4GB
- Windows 7 or later
- Graphics card: DirectX10.1 (Intel HD3000 or better)
- Hard drive: 100GB+
- Screen: 19”+
- USB Port or DVD drive
- RehaCom panel
- Printer

Languages

English
Spanish
German
French
Italian
Portuguese
Russian
Dutch
Greek
Finnish
Norwegian
Swedish
Polish
Turkish
Estonian
Korean
Hebrew
Arabic
Mandarin Chinese (Simplified & Traditional)
Lithuanian (coming 2017)
Czech (coming 2017)

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