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.

Evidence-based, clinically proven cognitive rehab

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.

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

**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.”

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

**Spatial Attention**
- Measures visual-spatial memory span. It is also used for testing the implicit visual-memory learning and working memory.

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

**Reaction Behavior**
- Measures the patient’s performance in exploring his visual field. Measures parallel and serial search.

**Responsiveness**
- Measures the patient’s performance in exploring his visual field. Measures parallel and serial search.

**Two-dimensional Operations**
- Measures visual-spatial memory span. It is also used for testing the implicit visual-memory learning and working memory.

**Spatial Operations**
- Measures visual-spatial memory span. It is also used for testing the implicit visual-memory learning and working memory.

**Divided Attention**
- Measures visual-spatial memory span. It is also used for testing the implicit visual-memory learning and working memory.

**Divided Attention 2**
- Measures visual-spatial memory span. It is also used for testing the implicit visual-memory learning and working memory.

**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.

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

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

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

- If Attention and Concentration is not challenging enough, then continue with Spatial Attention or Divided Attention.
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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| Memory | Working Memory | 70 |
| | Topological Memory | 20 |
| | Physiognomic Memory | 21 |
| | Memory for Words | 30 |
| | Figural Memory | 9 |
| | Verbal Memory | 10 |

| Executive Functions | Plan a Vacation | 55 |
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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.
Memory

Working Memory
Short-term and selective memory, and mental manipulation

Memory for Words
Memorize up to 10 words in three degrees of complexity

Physiognomic Memory
Memorize faces, names, occupations, and phone numbers

Topological Memory
Picture cards are turned over, memorize position and content

Figural Memory
Figural content, picture-word association, captions, and aphasia

Verbal Memory
Recognize and identify target words from a previous presented learning list

Logical Reasoning
Conclusive thinking, problem solving, and series completion

Plan a Vacation
Priorities, shortest ways, and schedule optimization

Shopping
Virtual supermarket / hardware store, shopping list, and money

Saccadic Training
Eye movement training, hemianopia, and neglect

Overview and Reading
Parallel and sequential search on homonymous visual field losses

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

Executive Functions

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

Contact Pearson for more information.
888.783.6363

Technical Support:
rehacomsupport@pearson.com

Sales/Information:
rehacominfo@pearson.com

PearsonClinical.com/RehaCom