

Welcome to Cogmed Working Memory Training

Our program is virtual and designed to be flexible around your family's schedule.

Cogmed is a **5-8 week digital therapeutics training program** designed to improve the brain systems responsible for attention and working memory. You and your child will be supported through the adaptive program with weekly coaching sessions. Our coaching sessions are designed to boost motivation and provide individualized strategies to bolster working memory.

Who is Cogmed for? Virtually everyone can see benefits from working memory training. However, these benefits and improvements are often easier to notice in people who experience direct problems in their daily lives due to their working memory capacity. Some common examples that have benefitted significantly in scientific studies with Cogmed include people with ADHD, Concussion, Cancer treatment, and Dyslexia.

What are some noticeable benefits of working memory training?

Some of the most commonly demonstrated effects include the following, sorted from those that appear immediately upon completing the training to those that develop over time.

1. Increased ability to focus attention
2. Better capacity to keep more numbers in mind, improved ease in solving complex mental calculations
3. Improved reading comprehension, as longer stretches of words are available to be turned into meaning
4. Remembering more steps of an instruction while carrying out a task
5. Less likely to act on impulses
6. Improved performance in school (first shown in math and reading, later in other subjects)
7. Better self-confidence in academic, professional, and other cognitively demanding contexts
8. Improved interpersonal relationships, as the person training is becoming more dependable

What is Working Memory?

Working Memory is the cognitive ability to remember information and to incorporate this information into completing complex tasks. It is the bedrock of all executive functions because of how it influences the others. It is a key component to successful learning and helps us remember what to focus on to solve problems. Individuals with learning differences, such as dyslexia and ADHD, often have working memory deficits that can impede progress toward reaching academic and social-emotional growth. We rely on working memory for a variety of tasks:

- **Remembering instructions**
- **Mental math problems and reading comprehension**
- **Multi-step problem-solving and sequencing tasks**
- **Sustaining focus and structuring daily life**

Given the neuroplasticity of the brain, working memory can be improved.

Cogmed is built on this research, which shows that training can improve working memory (WM) and lead to better attention in everyday life. Better working memory and attention often lead to better performance of everyday tasks, behavior, learning, and other positive outcomes.

Training Overview:

- Cogmed is accessed at app.cogmed.com from a web browser.
- It is recommended that training takes place in a distraction-free environment on a tablet or computer, but not on a mobile phone because of the small screen.
- Cogmed Coaching Center supports use on mobile phones for easy and accessible monitoring.
- Trainees are presented with a different set of exercises to complete each day (i.e., a training block) before moving on to the next set of exercises.
- Training is adaptive, which means that the program adjusts based on the Trainee's performance so that they are consistently presented with exercises that are appropriately difficult to challenge their WM. We often refer to this as the "training zone".
- Training is available in two programs: Standard and Light. The Standard version requires comfort with numbers and letters, while the Light version does not and may be more appropriate for young children and those with specific cognitive difficulties that interfere with language processing.
- An optional incentive program, the Create theme, is integrated into the program. Training progress and effort directly translate into rewards in the Create theme.
- Coaches can choose approximately how long each training block lasts (25, 35, or 50 minutes) and how often Trainees should train (3 - 5 days / week), which impacts the overall length of time to complete the Cogmed training. Configuring these parameters allows the training to be individualized to the needs of the Trainee.
- Training data are visualized in the online Cogmed Coaching Center and are viewable by both the Coach and the Trainee.
- It is recommended that most Trainees identify a Training Aide who acts as a support person to help monitor training and provide encouragement. This is especially important for children and adolescents.

Initial Interview and Startup Session (45-60 minutes):

- We will do an overview of the Cogmed program and establish and identify any potential issues that might hinder focus or progress during training. Likewise, we will identify the Trainee's strengths and other incentives that will help enable the trainee to progress and move through the training blocks of the program even when they become uncomfortable and require more effort.
- We will educate the Trainee and Training Aide on how to use the program, how to stay motivated, and how to persist despite any frustrations.

Weekly Coach Check-Ins (15 minutes):

- Coach meetings or check-ins (usually 15 minutes or less) occur between the Coach, Training Aide, and Trainee by phone or videoconferencing every week. There will be a minimum of 5 scheduled meetings throughout the training period, and perhaps more if the training takes longer than 5 weeks.
- During these meetings, coaches have an opportunity to hear the Trainee's evaluation of their own progress, share observations with the Trainee and Training Aide, evaluate motivation, discuss strategies that are working well for the Trainee, hear concerns and problem-solve, and plan for the next week's training.

Wrap-Up Session (30-45 minutes):

- After the last training session is complete, a Wrap-Up Session will occur, during which the Cogmed Coach summarizes the training with the Trainee and Training Aide and gives feedback based on data in the Cogmed Coaching Center.