

Improving Working Memory

Objective

To improve your working memory by practicing seven activities.

What to Know

Losing your keys, leaving your wallet at the grocery store, or forgetting a loved one's birthday are often signs of poor working memory. Working memory problems are a symptom of attention deficit hyperactivity disorder (ADHD).

"Short-term memory," or working memory, refers to thoughts or information you hold temporarily in your mind. These bits of information are available when you need them to complete a task, have a conversation, or create a to-do list. You use working memory when reading, writing, planning, organizing, doing a mental math problem, or following multi-step directions. It helps you stay focused on (and engaged with) a task. When you mentally prepare a list before going grocery shopping or plan what you want to accomplish at work, you are using working memory.

If you have working memory problems, this part of your brain is like a loosely woven basket where items slip through the cracks. Imagine going to the store with a mental list, only to arrive home having forgotten many of the items! You might avoid having conversations because unless you interrupt the other person, you often cannot remember what you wanted to say. Perhaps you must reread paragraphs several times before you can move on. You may use external sources to help you track thoughts, ideas, lists, and so on, relying on written notes, smartphone apps, or other people's help.

Research indicates that young children have limited working memory skills, holding just one or two items in memory. Working memory continues to develop until around age 15, but not everyone develops at the same pace or has the same memory capacity.

You can use strategies to compensate for a poor working memory. Many people with ADHD use reminder systems to keep things in order, like a notepad app on their smartphone, or an alarm or calendar app to remind them of appointments. Here are some additional suggestions.

1. Break up large chunks of information. Focus on one or two steps before moving on to the next. Imagine you are planning a party. You are overwhelmed with everything you need to do – shopping, cooking, cleaning your home, decorating, and setting up. Just focus on one item at a time (such as shopping) and ignore the other tasks until that item is complete. Delegate some of the tasks if a project is just too much for you to accomplish alone.

2. Use checklists. You might create a checklist in the morning for what needs to be done during the day. Keep the checklist handy so you can refer to it frequently throughout the day.

3. Develop routines. When you automate tasks, they no longer require working memory. When you are forced to remember what to do next, this takes up unnecessary cognitive workspace.

Create daily routines, such as placing your phone and keys in the same place when you enter your home.

4. Practice working memory skills. Experiment with ways of remembering information. Research apps, products, or services, such as [CogMed](#) and [Play Attention](#), that can help train your brain to improve working memory. Or come up with your own activities. For example, you can write down six unrelated words and try to remember the first two words without looking at the paper, then add another word to remember, and so on. You may remember lists more easily if you make it a song, make up a rhyme, or use visualization.

5. Reduce multitasking. It is far less efficient to try to do two or more things at once than to focus on one task at a time. Multitasking interferes with working memory, leads to poor academic performance, and may even contribute to long-term memory problems. According to [research](#), multitasking actually shrinks certain areas of the brain, and it is linked to shortened attention spans. Focus on completing one task and then moving on to the next.

6. Become more mindful. Regular meditation (as little as 20 minutes per day) increases blood flow to the brain, resulting in a stronger network of blood vessels in the cerebral cortex. This reinforces memory capacity. Actively minimize distractions through mindfulness exercises to increase recall.

7. Add physical activity to your daily routine. Research shows that working memory increases with daily aerobic exercise. Scientists believe physical activity improves the health of brain cells, indirectly helping by improving mood, helping you sleep better, and reducing your stress levels.

8. Group items together. Your social security number is nine digits long, while phone numbers are ten digits long. Both numbers are typically grouped or chunked, making them easier to remember.

What to Do

First, check off the following statements that apply to you.

___ I have a hard time remembering people's names, even if I have met them multiple times.

___ When I read something, I usually end up going back to re-read sections because I cannot remember what I just read.

___ I frequently misplace my phone, glasses, keys, or other personal items.

___ I feel like I waste time every day looking for misplaced items.

___ When I plan to complete work at home and pack up items I need at the end of my workday, I realize later that I forgot to bring home several essential items.

___ I have a hard time following conversations, forgetting what people said moments before.

___ I often forget what I want to say to others.

___ I frequently interrupt others because I fear I will forget what I wanted to say.

___ I have a hard time managing large projects – even when I break them down into steps, I either miss steps or spend too much time on unimportant tasks.

___ People accuse me of not listening because I fail to follow through on tasks I am asked to do.

___ In the morning, I usually rush to get ready for work, but I am still often late.

___ If I am completing a task with several steps, I often forget the final step.

___ I am a chronic multitasker.

If you checked off more than three statements, you may want to focus on improving your working memory.

For the next two weeks, use the following chart to record what you do to improve your working memory. Refer to the suggestions above or come up with your own ideas. Record the date and the activity, exercise, or action. Note whether it was helpful, and write down any related notes (for example, whether you will try the activity again, what you might do differently, and so on).

Date	Action	Helpful? Y / N	Notes

Date	Action	Helpful? Y / N	Notes

Reflections on This Exercise

Did this activity help you improve your working memory? Explain.

What are the top three things you can do to continue improving your working memory?

Did anything surprise you about this activity? If so, describe.

How helpful was this exercise? _____

(1 = not very helpful, 5 = moderately helpful, 10 = extremely helpful)

What did you learn from this exercise?
