

# Keep Forgetting Things? Neuroscience Says These 8 Brain Habits Improve Memory and Leadership

A brief introduction to some of the most interesting studies from the past couple of years.

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Ever had things like this happen?

- You come home from the store with three big bags, but you forgot the one thing you meant to buy in the first place.
- You go to log into your email. Suddenly, you can't recall the password you've entered 11 zillion times before.
- You meet someone at a networking event. You think to yourself, *"I'm going to remember this person's name. His name is John. I'm talking to John. John is his name."* Then, two seconds later, you forget the name.

Granted, these examples might be a bit specific to me personally, but I'm sure you have your own. Because having spent a decade reporting and writing about the habits and pitfalls of highly successful people, one concern stands out: *memory*.

Fortunately, neuroscience can help -- both to reassure you that you're normal, and to provide support for the idea that there are specific habits and practices people can learn to improve memory when they need it most. Here are eight of the most interesting I've found over the past couple of years:

## **1. Get better lighting.**

Let's start with this one, because it's oh-so-easy. Michigan State University researchers studied whether Nile grass rats exhibited better memory when they were kept in an environment where the lighting resembled a corporate office (think dim fluorescent lighting) or where the lighting resembled a sunny day outside.

Sure enough, the study found that rats in dim lighting "lost about 30 percent of capacity in the hippocampus, a critical brain region for

learning and memory, and performed poorly on a spatial task they had trained on previously."

Extrapolating it to humans, as one of the lead study authors put it: "[D]im lights are producing dimwits."

## **2. Do games and crossword puzzles.**

Writing in the journal NEJM Evidence, D.P. Devanand, professor of psychiatry and neurology at Columbia University, and Murali Doraiswamy, professor of psychiatry and medicine at Duke University, said they studied 107 volunteers over the course of 78 weeks.

In short, they found that test subjects who were asked to do crossword puzzles regularly fared much better in terms of memory loss (or lack thereof) than those who were asked to spend a similar amount of time playing video games.

"The trifecta of improving cognition, function, and neuroprotection is the holy grail for the field," Doraiswamy said at the time.

## **3. Try intermittent fasting.**

OK, this one is easy simply because of the compelling source behind it: a TED Talk with 13.5 million views and counting by Sandrine Thuret, leader of the Adult Neurogenesis & Mental Health Laboratory, entitled simply: "You Can Grow New Brain Cells. Here's How."

A study out of King's College London, testing this time on mice, found that those who were put on an intermittent fasting regimen "improved long-term memory retention" compared with two other groups of mice that were either fed as they had been or placed on calorically restricted diets.

## **4. Try walking backwards.**

This one is a bit unusual, but researchers in London did six experiments to determine whether simply walking backward could spark a better ability to recall things using short-term memory.

To jump to the end, the six experiments the researchers at the University of Roehampton tried, worked.

"The results demonstrated for the first time that motion-induced past-directed mental time travel improved mnemonic performance for different types of information. We have named this a 'mnemonic time-travel effect,'" Aleksandar Aksentijevic, of the university's Department of Psychology, said in a [press release](#).

## **5. Eat more fruits and vegetables.**

I like this one for the sheer number of people who were studied: [27,842 men over a period of more than 20 years](#).

Researchers from the Harvard School of Public Health studied eating habits over that time, and found that participants who ate more fruits and vegetables -- and especially who ate more dark orange vegetables, red vegetables, leafy greens, and berry fruits -- had less memory loss later in life.

The caveats on this one were that we're talking about correlation rather than causation, and also that it didn't support the idea that you could make up for not eating vegetables in your younger years by becoming a veggie aficionado late in life. Still, it probably can't hurt.

## **6. Read for pleasure.**

Among the more recent studies, researchers from the Beckman Institute for Advanced Science and Technology at the University of Illinois Urbana-Champaign set out to determine if there were cognitive habits that might surpass game-playing and crossword-puzzle-doing (see above) in the memory development game.

Short version: They found that reading for pleasure -- five days a week, about 90 minutes at a time -- "[strengthened older adults' memory skills](#)" better than puzzles.

"The results were incontrovertible," the researchers said. (In case you don't remember the definition of that word, which would be ironic, it means "not able to be denied or disputed.")

## 7. Get enough sleep.

I know, I know. Articles suggesting everything from how to lose weight to how to improve your mood tell you to get enough sleep.

What's especially fascinating when it comes to memory, however, out of a study at the Chronobiology and Sleep Institute at the University of Pennsylvania, is that we don't just suffer from "deficits ... in vigilance and episodic memory" with just a small deficit in sleep.

In addition, we lose the subjective ability to judge how that lack of sleep affects us -- so we don't even know how bad our memories get. The only way around that? Remember to make sleep a priority.

## 8. Develop detailed hobbies.

Finally, for our purposes, comes a Canadian study published in the peer-reviewed journal *Proceedings of the National Academy of Sciences*, in which researchers attempted to determine whether people who became deeply interested in detail-oriented hobbies might see their memories evolve over time.

In short, they found that people with detailed hobbies -- bird-watching, in the case of the research subjects -- who tended to characterize memories and store them according to more detailed criteria, were more likely to remember things in a study.

As one researcher put it, the explanation may be that "the more background knowledge you have, the better you are at learning and retaining new information by placing that information in the scaffolding of your existing knowledge."

Of course, there's no reason to think it's bird-watching specifically that improved people's ability to recall things like this; any detailed activity might work--say, for example, collecting obscure studies about neuroscience and memory and publishing them in compendia on the internet.

That might work (I hope). Regardless, rest assured, I'll be on the lookout for more studies to add to this list.

For, as I write in my free e-book *The Free Book of Neuroscience: 13 Ways to Understand and Train Your Brain for Life*, there's nothing more fascinating than the human brain, and the unexpected ways in which it works.

If there's a more interesting and vital aspect to this than human memory, I'm sure I've forgotten it.

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