

How you can supercharge your brain from the comfort of your home

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As I drove to pick up a black raspberry soft-serve, I noticed my mind racing. After months of isolation, I needed a 5-minute brain break—a strategy to slow down my brain that I learned from a new online study called The BrainHealth Project.

During the COVID-19 pandemic, a healthy brain is even more important

to cope with disruptions to normal routines. Over the next 10 years, the Center for BrainHealth at the University of Texas at Dallas will investigate whether Strategic Memory Advanced Reasoning Training, or SMART, helps people be more productive, make better decisions, solve problems more efficiently and be more creative.

Until the pandemic, people could try SMART by visiting the Center for BrainHealth. Long before the pandemic hit North Texas, the team had already been planning to bring The BrainHealth Project online in order to welcome a larger, more diverse group of participants.

And thanks to community-wide donations in response to COVID-19, the Center for BrainHealth made SMART available for free to first responders and frontline workers who aren't participating in the study. These folks can also attend exclusive webinars on building resilience and mindfulness through the end of August.

Stacy Vernon, a clinician on The BrainHealth Project, marvels at the timing, "We had this format pre-COVID," she said, "which is amazing—that we were always going to use Zoom, that we were always going to do assessments online."

The program consists of four modules that participants can complete at their own pace. The first three modules teach participants how to prioritize tasks, how to understand the gist of things and how to innovate. The last module teaches participants how to use these strategies in their everyday lives.

BrainHealth Index

Starting in early 2021, the project will open up worldwide. For now, 179 individuals, including myself, are piloting a 14-week version of the study to see if we can improve our BrainHealth Index. That's a "holistic" score

of how well the brain functions, said Dr. Sandra Chapman, founder and chief director of the Center for BrainHealth. She is also co-leader of The BrainHealth Project.

Sleep patterns, stress levels and the quality of a person's relationships are all included in the score. There are also one-on-one coaching sessions with licensed clinicians.

John Keehler, 42, a McKinney digital marketing executive, is participating in the pilot program and has tried a lot of different mindfulness and productivity apps in the past. The project's coaching sessions keep him more accountable. "I don't want to show up to that coaching session not having, you know, made an attempt to learn some things or put that into practice," he said.

With the guidance of clinicians, The BrainHealth Project will help determine if the strategies taught to participants could physically change their brains.

There are different parts of the brain that act like hubs, sharing information with one another through chemical and electrical signals. But the efficiency of this transfer of information decreases with age.

Prefrontal cortex

One area of the brain is particularly important for improving brain health, said Dr. Mark D'Esposito, a University of California at Berkeley neurologist associated with the [project](#). The [prefrontal cortex](#) "is in this privileged position to sort of influence and modulate the rest of the brain," he said.

The BrainHealth Project might improve how efficiently the prefrontal cortex communicates with other brain areas. Functional magnetic

resonance imaging (fMRI) suggests that SMART improves the efficiency of the prefrontal cortex, according to a 2018 study by the Center for BrainHealth.

Experts caution that these brain changes might be temporary. "If you just do [physical exercise](#) for 12 weeks, and never again, you wouldn't expect the results to last," said Dr. William Kremen, an expert on cognition and aging at the University of California, San Diego.

But he believes that SMART indeed causes changes in the brain, and The BrainHealth Project will likely examine how to make such changes long-lasting.

What may come as a surprise is that multitasking, usually touted as essential to success, might fray these connections. "Think about pressing the accelerator and the brake (of a car) at the same time," Dr. Chapman said. "That's what it's like—your brain cannot do both at the same time. Instead, it has to quickly toggle back and forth, never focusing on what it's doing."

'Possibility thinking'

A chronic multitasker herself, Georgeann McRaven, a participant in the [pilot program](#) and spokesperson for The BrainHealth Project, has recently focused on one task at a time. "I find I'm having more meaningful conversations," she said.

For people at home who want to improve their brain health, Dr. Chapman recommends having conversations with people of different backgrounds, experiences or opinions. "That's 'possibility thinking'—if I can open my mind to one person that's different from me and try to find common ground," she said. "That bridge is a really big brain charge."

An avid reader of Winston Churchill biographies, McRaven now incorporates "possibility thinking" by challenging herself to read biographies of people from different backgrounds. Recently, she read Viktor E. Frankl's *Man's Search for Meaning*. "Reading different things has opened my eyes to different thought processes," she said.

Possibility thinking is challenging me to try new things, like leaving my neighborhood for the first time during the pandemic to grab an ice cream. While I'm not yet sure if my BrainHealth Index has improved, I feel empowered to continue using the strategies I've learned.

Regardless of the BrainHealth Index, Vernon, the clinician, hopes that participants will still report "greater satisfaction, meaning and purpose in their life." It's unknown whether these feelings relate to long-term changes in the brain, but data collected from The BrainHealth Project could be a step toward understanding.

More information: SMART Registration is at brainhealth.utdallas.edu/

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