



BRAIN HEALTH BOOST



Research Unlocking the Secrets of Super-Agers and Their Super Brains

*The Brain Health Initiative (BHI) is working to develop brain healthy communities, creating a culture that promotes brain health protective factors and decreases risk factors, thereby improving brain health, optimizing brain performance, and preventing and fighting brain illness across the lifespan for the Florida Suncoast region and beyond. **Researchers have identified super-agers as those whose minds remain sharp, avoiding the common age-related declines in memory, attention and function. What's their secret?***

If you're between the ages of 60 and 80, it's likely you've imagined what it might be like to have the body of a 20-something again. While that dream is unattainable, even with the healthiest of lifestyles, some of us may be lucky enough to have the brainpower of someone fresh out of college.

Last year, Harvard Medical School and Massachusetts General Hospital released the [latest study of super-agers](#), a group of people ages 60 to 80 whose brains maintain that youthful glow, at least determined by tests of memory and other brain functions.

Previous research, summarized in a [Harvard Gazette article](#), found that the cortex of super-agers' brains was comparable in size to those of younger adults. The cortex is the outermost layer of brain cells responsible for many thinking abilities. Also, over time, the super-agers' cortex shrunk at a slower rate than the cortices of average people.

In the latest study, the researchers drilled down, figuratively, to the visual cortex, which is responsible for processing and storing in memory the things that you see. Groups of neurons in the visual cortex are activated for specific activities, such as processing faces or landscapes. As we age, there is less specificity among the neuron groups.

The study found that super-agers, much like young adults, retain the selectivity of their neuron groups, resulting in more vivid and easily accessible memories.

“Memory decline is common, but not inevitable; we found that super-agers defy this age-related decline in brain power,” said Assistant Professor of Neurology Alexandra Touroutoglou, director of imaging operations at MGH’s Frontotemporal Disorders Unit. “Somehow they [super-agers] manage to avoid brain shrinkage, and avoid disruption in communication between brain regions important for memory. And their memories are as strong as those of young adults.”

The question that remains is how does someone become a super-ager, or is it even possible to become one? Is there anything that a person can do as a young adult to stave off age-related decline? Is a super-ager a product of nature or nurture?

“Almost certainly it’s a mix of both,” Touroutoglou said. “A question we are very interested in is this: Even if you didn’t start out with superior memory abilities — because of your genetics — how can you preserve the memory and cognitive abilities that you’ve always had so that you can avoid typical age-related decline?”

Stay tuned!

WHAT YOU CAN DO TODAY TO PROTECT YOUR BRAIN HEALTH

There is no way to know for sure who will become a super-ager or if there is anything you can do to become one. But the BHI offers a few suggestions that will put you on the path to improved brain health throughout your lifespan.

- **ESCAPE YOUR BRAIN PERFORMANCE COMFORT ZONE.** Take up a task with which you’re not familiar and might have avoided in the past, such as doing your own taxes or brain or mathematical puzzles that you have not done in the past.
- **BOOST YOUR EXERCISE CAPACITY.** Intensity, duration and frequency of workouts are key here. Try to reach 70 percent of your maximum heart rate (subtract your age from 220) for 20 to 40 minutes three times per week.
- **PATIENCE PAYS.** Stick with the previous two suggestions, even when progress is slow. Mastering unfamiliar tasks or reaching fitness goals can bring big benefits, but not if you get frustrated and quit.
- **CULTIVATE A BRAIN HEALTHY ATTITUDE AND REMEMBER THAT AGE IS JUST A NUMBER.** As long as your body is up to the challenge, don’t worry about what the calendar says you should or should not be able to do.
- **FIND SOME BRAIN HEALTHY FRIENDS.** It’s always easier to learn something new when you start out with other people who are inexperienced, too. Or, you could always befriend an expert and get some personal lessons for free.

BE BRAIN HEALTHY and adopt a lifestyle that includes thoughts, behaviors, emotions, responses, and language that promote brain health protective factors:

- Stress resilience
- Nutrition
- Physical activity
- Sleep

- Social connection
- Emotional wellbeing
- Meaning and Purpose
- Cognitive stimulation and creativity
- Engaging with nature
- General health
- Positive impacts

About the Brain Health Initiative (www.brainhealthinitiative.org)

The Brain Health Initiative (BHI), a 501(c)(3) nonprofit, uses a cutting-edge approach to protecting brain health, promoting brain performance, and preventing and fighting brain illness across the lifespan. The BHI is building brain healthy communities, cultures that foster brain health protective factors and address risk factors, thereby improving brain health and optimizing brain performance outcomes for the Florida Suncoast region and beyond. Join the ***Be Brain Healthy*** movement, ***because brain health matters, and lifestyle makes a difference.*** To view all Brain Health Boosts [click here](#).