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## Break a sweat — with your brain

Older people can protect their minds by breaking a mental sweat

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Wrinkles, gray hair, age spots. There are lots of downsides to aging.

Losing the mind, though, tops the list for many people.

But fear not. Just as research has demonstrated how important physical exercise is to aging well, experts now say there are things we can do to reduce our risk of mental decline, or even reverse it. It's called the mental workout, and as baby boomers search for more ways to enjoy their longevity, interest in it is beginning to explode.

"People are saying, 'I want to live long, but I want to do it on my terms,'" says Michael Patterson, who runs the brain fitness program [Staying Sharp](#), a joint project of the [Dana Alliance for Brain Initiatives](#) and [NRTA: AARP's Educator Community](#). "They're saying, 'I could live with a little bit of physical decline, but I don't want any decline in my cognitive abilities. So what can I do about it?'"

That's a question scores should be asking. It's estimated that about 5.1 million Americans have Alzheimer's disease, including 4.9 million people age 65 and older. The Alzheimer's Association predicts that by 2050, the number of people age 65 and over with Alzheimer's could range from 11 million to 16 million, unless science finds a way to prevent or treat the disease.

Those are scary numbers, particularly for an aging generation of baby boomers.

Some risk factors for dementia, which is most commonly caused by Alzheimer's disease, simply aren't reversible, such as genetics. Fortunately though, brain plasticity studies have shown the brain can rewire itself into old age, and even add new cells in response to stimulation. Researchers say some people may have a better shot of maintaining their brain health by adopting a few preventive strategies, such as using computer programs and making lifestyle changes.

### Digital doctor

In the medical world, computer software has been used for years to help people who have suffered strokes or traumatic brain injuries regain specific mental abilities, says Alvaro Fernandez, co-founder and chief executive officer of [SharpBrains.com](#), a Web site promoting awareness of science-based cognitive training.

Interest in this new frontier of wellness is now mainstream, and the market has responded with a host of products, ranging from portable games such as Nintendo's "Brain Age" to more science-based software, such as Posit Science's "Brain Fitness Program."

Posit Science CEO Jeff Zimman says the program is the only one on the market backed by published scientific studies, which show that healthy people over age 60 on average experienced the equivalent of a 10-year improvement on standardized cognitive tests after using the product. Consumers, many of whom had little to no previous computer experience, have self-reported improvements in everything from their ability to remember names to feeling more confidence and optimism, he says.

The San Francisco-based company began selling the program to retirement communities in 2005, and it's now used in 130 facilities across the country and in Canada. The software targets the neurological processes necessary

for accurate listening, effective thinking and a strong memory. In one exercise, users get a list of instructions asking them to move cartoon characters to onscreen spots. The goal is to sharpen the memory, enabling people to recall, say, a grocery list.

CogniFit, a company established in Israel in 1999 that recently began marketing products in the U.S., offers a computer-training product called "MindFit." Its level of difficulty increases as users' skills improve, keeping them constantly challenged.

The company also announced last month it has developed new software designed to get the typical employee to challenge his or her mind. The corporate program will assess users and sharpen their cognitive skills for 10 to 15 minutes a day. CogniFit sees the product as a way for businesses to potentially lure older workers to stay on the job longer and keep workers of all ages mentally fit.

If using your computer as a mental gym sounds good to you, SharpBrains.com's Fernandez suggests asking a few questions first to determine a product's benefits and whether it's worth the money. Do neuropsychologists and peer-reviewed research support the program? Does the product indicate what part of the brain it exercises?

"Some programs are entertainment," Fernandez says, "and some are exercise."

### **Change your life**

Not everyone, however, is convinced that computer programs are the way to go.

"I don't think that they have proved that they stop Alzheimer's," says Dr. Robert Butler, CEO of the [International Longevity Center-USA](#), a not-for-profit, nonpartisan research, policy and education organization that helps communities address the issue of aging. "You could save some money by having a nice book club or learning a new language. There may be a benefit but I'm not sure you have to buy a computer game to keep up your brain health."

Both the International Longevity Center-USA and the Staying Sharp program advocate intellectual stimulation, physical exercise and a healthy diet to keep your mind in top shape.

Education, such as learning a new instrument, has been found to have a protective effect against cognitive decline, even in those younger than 65, according to the 2001 report "Achieving and Maintaining Cognitive Vitality With Aging," sponsored by the Institute for the Study of Aging and the International Longevity Center-USA, among others.

Likewise, the report says exercise can benefit an older person's brain by improving blood supply to the brain, and a high intake of antioxidants, such as vitamin C, E and beta-carotene, may help prevent progressive cognitive impairment.

Whatever method you choose to give your mind a workout, Butler says the earlier you start, the better.

"We should be exercising our minds and our bodies," he says. "We'd all be a lot healthier if we did."

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