

Boomers catch a brain wave

Aging Americans turn to new ways of stimulating the mind

By Pam Belluck



Morris Ducoff, 89, taking advantage of the "brain fitness center" at Epoch Senior Living in Providence, Rhode Island (Erik Jacobs for The New York Times)

PROVIDENCE, Rhode Island: Is there hope for your hippocampus, a new lease for your temporal lobe?

Science is not sure yet, but across the United States brain health programs are springing up, offering the possibility of a cognitive fountain of youth.

From "brain gyms" on the Internet to "brain-healthy" foods and activities at assisted living centers, the programs are aimed at baby boomers anxious about entering their golden years and at their parents trying to stave off memory loss or dementia.

"This is going to be one of the hottest topics in the next five years — it's going to be huge," said Nancy Ceridwyn, co- director of special projects for the American Society on Aging. "The

challenge we have is it's going to be a lot like the anti-aging industry: How much science is there behind this?"

Dozens of studies are under way. Organizations like the AARP, an organization for retired persons, are offering brain health tips. And the Alzheimer's Association conducts hundreds of Maintain Your Brain workshops, many at corporations like Apple Computer and Lockheed Aircraft.

At least two health insurers are pushing brain health. MetLife is giving prospective clients a 61-page book it commissioned called "Love Your Brain." Humana will provide, free or deeply discounted, \$495 worth of brain fitness software to some four million older customers and offers "brain fitness camps" with the software at computer stores and community colleges.

There are Web sites like HappyNeuron.com, which offers subscribers cranial calisthenics, and MyBrainTrainer.com, marketed to anyone who ever wanted to "be a little quicker, a little sharper mentally."

And Nintendo's Brain Age, a video game that features simple math, syllable-counting, word memory activities and the quick reading aloud of passages from the likes of Poe and Dickens, which "gives your prefrontal cortex a workout," the instructions say.

"I just felt that, 'Hey, this is something I ought to do,'" said Roy Gustafson, 85, who tried Brain Age at a Nintendo promotion at his Redmond, Washington, retirement community. When he quickly got top scores (his "brain age" was low 20s), he decided to quit while ahead. But almost daily, he plays the Sudoku games in the hand-held device, saying, "It keeps me alert."

Whether the hopes for brain health programs are realistic is still largely unknown, scientists say.

Most brain-healthy recommendations are not considered bad for people. They do not have the potential risks of drugs or herbal supplements. And things like physical exercise and omega-3 fatty acids can help the body, even if they do not end up bettering the mind.

"All of the things are good for you to do in general," said Dr. Elizabeth Edgerly, a clinical psychologist with the Alzheimer's Association. "Do I have concerns? Yes. We're very cautious. Is it going to mean you can remember where you left your car keys? We can't say that."

Still, the appeal of the programs is strong.

Epoch Senior Living in Providence is among the many assisted living facilities with "brain fitness centers." Surrounded by posters of Einstein, Rodin's "The Thinker" and "Brain Facts," residents spend an hour a day for eight weeks doing computer exercises involving recalling story details and distinguishing similar-sounding syllables.

David Horvitz, 92, a resident at Epoch, said, "It did improve my concentration, particularly when I read. Before, my mind would wander and I'd have to reread passages several times. It also seems to me that I'm remembering names a little bit better."

Emeritus Assisted Living, a chain, started a brain health program for residents, their families, staff members and people in the community. So far, centers in Florida, Massachusetts and South Carolina offer "brain-healthy" foods like salmon and walnuts, activities like spelling bees and reminiscing games, prizes to staff members for recalling brain health trivia and a "brain health self-assessment" questionnaire asking, among other things, if people play challenging board games, walk 10,000 steps a day or eat flax seed three times a week.

The program at Emeritus's Isle at Emerald Court in Tewksbury, Massachusetts, which includes a five-day-a-week regimen of leg lifts and stretches on the burgundy jacquard lobby chairs, influenced Ray Decker to choose the center for his mother, Joan, 75, who is in the early stage of Alzheimer's.

"Those types of things may stimulate her brain, and, despite her debilitating disease, she actually may come back a little," said Decker, 57, who plans to complete the questionnaire himself and adopt brain-healthy activities. "I think that this will keep my mother healthy for some time to come, actually extend her life in a mental and physical manner."

While there is encouraging animal research, experts say human studies have generally observed habits of people with healthier brains, not tested whether a particular behavior improves brain health. Perhaps people with healthier brains are more likely to do brain-stimulating activities, not the other way around.

"Right now," said Dr. Marilyn Albert, director of cognitive neuroscience at Johns Hopkins University, "we can't say to somebody, 'We know that if you walk a mile every day for the next six months, your memory's going to be better.' We don't know that if you do certain kinds of puzzles it's going to have a benefit."

In addition, few scientists suggest that brain health activities prevent dementia, only that they might delay it.

The strongest evidence to date suggests that cardiovascular exercise also probably helps the brain, by improving blood circulation, experts say.

"What's good for your heart's probably good for your head," said Lynda Anderson, chief of health care and aging studies at the U.S. Centers for Disease Control and Prevention, which last year received the first congressional appropriation to study brain health.

Similarly, Albert said that evidence suggested that heart-healthy foods are probably brain-healthy foods.

As for brain-training exercises, studies show improvement in them, though not necessarily in real-life activities, said Dr. David Loewenstein, professor of psychiatry and behavioral sciences at the University of Miami's school of medicine.

In a National Institute on Aging study, people given at least 10 hours' training in memory, reasoning or processing speed showed improvement, which held five years later. People reported slightly less difficulty in everyday skills, like handling medication and making telephone calls, but most of those results were not dramatic, researchers reported.