

Calisthenics for the Older Mind, on the Home Computer By CHRISTINE LARSON

WHEN Charline and Dan Truitt of Irvine, Calif., owners of a company that audits mortgage lenders, started misplacing their keys and blanking on names, they made all the usual jokes about senior moments. But it was no laughing matter when Mrs. Truitt, 62, started forgetting client appointments.

“I was honestly wondering if we would have to sell the company,” she said. Instead, she started using Brain Fitness Program, a software product that says it can improve brain power through its regimen of mental calisthenics. After about six weeks, she said, “I could suddenly remember where things were and remember appointments, and didn’t have any problem recalling conversations.”

Americans spend hundreds of millions of dollars on brain-building digital toys like Baby Einstein for preschoolers, so it was only a matter of time before a parade of “Grandpa Einsteins” followed suit. In the past year, some half-dozen programs, with names like Brain Fitness Program 2.0, MindFit and Brain Age2, have aimed at aging consumers eager to keep their mental edge.

After a study by researchers at the University of Washington suggested this month that Baby Einstein and similar videos for infants might not be beneficial, consumers may be wondering about products created for the other end of the age spectrum. These can cost from \$29.95 to more than \$2,500 for a program. Some makers of cognitive fitness software argue that their products are still too new to show long-term results, especially because cognitive decline can take many years to surface.

“The scientific evidence for those commercial products is still very weak,” said Timothy A. Salthouse, professor of psychology at the University of Virginia. “Manufacturers and companies have jumped into this without doing the research” to prove that their products enhance cognitive function or delay mental decline, he said.

It’s not that you can’t teach an old brain new tricks, Dr. Salthouse said — in fact, you can. Recent research in neuroplasticity — the brain’s ability to change in response to information and new activities — shows that brain cells and new pathways continue to develop throughout life. A 2003 study found that people older than 75 who danced, read, or played board games or musical instruments faced a lower risk of dementia.

Unfortunately, translating this research into specific mental workouts to postpone cognitive decline may be far from easy.

Some companies, like MyBrainTrainer and Nintendo, emphasize engagement. MyBrainTrainer’s Web site, which charges \$29.95 a year for access to a variety of brain-building activities, lets users compare their performance with others in their age group.

Nintendo’s Brain Age2 for the Nintendo DS hand-held system (\$19.99 for the game, \$150 for the system), assigns users a “mental age” based on their performance of a few diagnostics, and encourages repeated practice to bring that number lower.

Several companies are trying to document the effectiveness of their cognitive training products. Dakim, maker of the brain trainer [m]Power, is planning clinical trials with the University of California, Los Angeles. Posit Science, makers of Brain Fitness Program 2.0, sponsored a study published last year in The Proceedings of the National Academy of

Sciences, showing that users improved not only in the tasks they practiced, but also in unrelated memory tests — with benefits continuing three months later.

The research persuaded the health insurer Humana to start offering the program free last year to its Medicare Advantage members, and at a steep discount to certain other members. So far, 16,000 members have received copies. Typically, the software sells at \$395 for one user, \$495 for two.

Still, there is little evidence that such programs offer tangible benefits over learning Spanish or taking up the tango. In the absence of clear data about which exercises might be most beneficial, companies have pursued different directions. Brain Fitness Program 2.0 is based on listening exercises, while other cognitive fitness software takes a more visual approach.

In [m]Power, clips from James Stewart and Laurel and Hardy movies, references to “The Honeyymooners,” and other bits of showbiz are used as fodder for quizzes. “It’s like playing Jeopardy,” said Maria Peters, 79, a resident of Eskaton Jefferson Manor, a senior apartment community in Sacramento. Jefferson Manor, one of 32 retirement communities using [m]Power, set up the system this year in its workout space, not far from the treadmill and stationary bikes.

Ms. Peters, who uses the system for about 20 minutes daily, said the program had helped her with daily tasks like grocery shopping.

Unlike other brain trainers on the market, [m]Power comes with its own hardware, including a touch screen instead of a keyboard and mouse. That makes it costlier than other programs. The home version, planned for a January introduction, will cost \$2,499, as well as a monthly fee of \$40 to \$50.

“It’s expensive,” said Andrew J. Carle, director of the program in assisted living and senior housing administration at George Mason University in Fairfax, Va. But the touch-screen interface may make it easier for older people to use without assistance from caregivers, he added. “It may provide a respite,” he said, “for the 80-year-old wife taking care of her 85-year-old husband with dementia.” If so, he said, some people may consider the system well worth the cost.

That’s what Dan Michel, Dakim’s founder and chief executive, hopes. “If you have a loved one at home suffering from dementia, it doesn’t seem like \$2,500 is an unreasonable expense,” he said. “If it were available when my father was alive, I would have done it.” Mr. Michel said his experiences caring for his father, who received a diagnosis of Alzheimer’s in 1993, prompted him to start the company.

Another program, MindFit, made by CogniFit, stresses tasks like tracking balls around the screen, memorizing patterns or strings of numbers and switching attention between two activities.

“It’s like having a personal trainer,” said Marian Conte, 51, of Hamilton, N.J., who uses MindFit for an hour three times a week. The program, which made its debut in the United States last fall, sells for \$149 for one user, \$249 for two.

MindFit compared its users with a similar group playing video games. The company said its users demonstrated more improvements in short-term memory and attention. The results persuaded Marc Agronin, a geriatric psychiatrist, to adopt MindFit as part of the new “brain gym” at the Miami Jewish Home and Hospital for the Aged, where he is director of mental health services.

“For an early study, the data is really promising for individuals with mild memory changes,” he said. “I do want to see more data, but I’m not waiting for that.”

Instead, he is offering MindFit as an option to people like a couple who came to him last month, frustrated by memory problems that the wife had suffered since having surgery the previous year.

A few months ago, Dr. Agronin said, he would have had nothing to offer them. “But now I could say to the husband, ‘Take this home, put it on the computer and get your wife started,’” he said. “Part of having hope is having tangible therapies you can bring to people.”