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# Get some brain training

By Joanna Poncavage Of The Morning Call

In the future, we will go to brain fitness centers to work out our thinking caps, just like we now have gyms to strengthen and improve our bodies, predict the founders of SharpBrains.

"Learning and targeted mental exercise promotes neurogenesis — the creation of new neurons — just as muscle growth is promoted through physical exercise," says Elkhonon Goldberg, clinical professor of neurology at New York University School of Medicine, and chief scientific adviser.

The concept of the brain as an organ that can be strengthened like a muscle is due, in part, to new technologies like the functional MRI, which takes pictures of the brain in action. Functional MRIs help scientists pinpoint parts of the brain involved in activities such as memory, visual perception, concentration or decisions, and thus make it possible to develop routines to exercise and strengthen those abilities. "This is literally a new field," says Alvaro Fernandez, SharpBrains CEO.

Launched a year ago, SharpBrains ([www.sharpbrains.com](http://www.sharpbrains.com)) offers a multifaceted approach to cognitive development: several distinct, interactive brain fitness programs that can be purchased for home use. With each comes access to an online community, where individuals may exchange comments and compare experiences. They also get a brain fitness coach, clinical psychologist and memory trainer Neal Cohen.

For free, anyone may explore SharpBrains' blog ([www.sharpbrains.com/blog/](http://www.sharpbrains.com/blog/)), a site packed with useful information, the latest brain research, and fun, brain-building activities. Tidbits such as this abound: The four pillars of brain health are physical exercise, brain exercise, good nutrition and stress-reduction.

Companies such as SharpBrains and Posit Science differ from other brain programs in the support system they offer, and the science and published data backing the effectiveness of their tools, says Fernandez, who has a background in education and technology. His company currently sells several computer programs, including:

MindFit, designed to help adults maintain a sharp, agile mind through exercises for memory, problem-solving, planning and other skills, with particular emphasis on those who are reaching the age where normal cognitive decline begins. It entails evaluation sessions to create an individualized training program to be performed 20 minutes a day, three times a week for 8 to 12 months, plus lifelong access to brain training tools.

Freeze-Framer, a biofeedback-based program to prevent and manage the negative effects of stress, which have been linked with memory loss and poor performance in school, work and sports. Developed by the Institute of Heartmath, which studies the interaction of the brain and the emotions, Freeze-Framer has a handy visual heart monitor, which puts your heartbeat on your computer screen.

IntelliGym, a program that teaches "game-intelligence" skills to professional and amateur basketball players including coordination, attention control, peripheral vision, perception and mental stamina. Developed by scientists in Israel to help train military jet pilots, it's designed to improve peripheral vision, pattern recognition and decision making, which

are all part of being a good basketball player, too.

RoboMemo helps children and adults with attention deficits and is for use in hospitals, or under medical supervision.

When he first read about the concept of a "brain gym" about five years ago, it sounded like science fiction, says Fernandez. Then he read Goldberg's book, "The Wisdom Paradox," which described his work rehabilitating stroke and traumatic brain injury patients.

In regard to the brain, says Fernandez, many people think "use it or lose it. We say, use it and improve it."

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