

**Maintain the Brain:** *Memory loss doesn't have to be part of aging*  
**FiftyPlus Magazine**  
By Kathleen Hall

Like many adults, Anne Sutton, 61, was afraid of losing her memory. When she retired three years ago, she knew she wanted to keep brain fit, her memory active, and continue to learn.

So she turned to the Lifelong Learning Institute, where for a yearly fee, adults 50 and over can take as many classes as they like. She has studied watercolor painting, comparative world religions, financial management and health-related course, to name just a few. Now she's expanded her involvement and is teaching a class called "Telling Your Life Story."

"I try to help the class realize it's important for them, and someday their children and grandchildren *will* be interested. I tell them to do it now, while they're still here."

There is a growing body of research that shows that decline in mental abilities due to aging is not inevitable. A study published in the June 2003 issue of *The New England Journal of Medicine*, for example, reported that participation in leisure activities has been associated with a lower risk of dementia in the elderly. Memory loss, sluggish thinking and difficulty solving problems can be delayed or prevented by keeping your brain fit throughout your life.

"Because we're sensitive to memory loss, we tend to panic," Sutton said. "But even young people forget things. I think we tend to over-react."

Losing memory or brain functioning is a fear widely shared by many aging adults. The good news is that our mental acuity does not degrade as much as we believe, especially in those adults who keep mentally fit. In fact, if you are reading this article, you probably have been investing in your own retirement "brain account," according to gerontology experts Sandra Cusack and Wendy Thompson.

Cusack and Thompson are authors of *Mental Fitness for Life: 7 Steps to Healthy Aging*, in which they debunk many of the myths that surround aging. They insist that by establishing and continually pursuing mental clarity throughout life, you can actually help prevent degenerative brain diseases.

**Use it or lose it**

According to researcher Christine J. Jensen, Ph.D., "It appears we lose short-term (recent) memories before we lose long-term memories. Memory also appears to be a 'use it or lose it' system. If we don't engage in a task or use a person's name for a while, it becomes more challenging to retrieve the memory." Jensen is a researcher in the Center for Public Policy Research at the College of William and Mary.

Fortunately, in addition to our own efforts, nature has given us built-in mechanisms to help maintain mental fitness.

“There is a type of intelligence called crystallized intelligence that is based on the premise of accumulated knowledge and experiences,” Jensen explained. “There is also the concept of cognitive reserve, which is based on the premise that we hold a certain degree of genetic and environmental ability that serves as a buffer against cognitive decline.”

Edward Ansello, Ph.D. from the Virginia Center on Aging at VCU, believes it’s never too late to re-begin learning and that it comes down to meaningfulness. “We are learning our entire lives,” he explained. “But you must register [new information], focus on it and make an attempt to retain it. Things that are meaningful tend to be learned readily and remembered.”

Ansello credits the expression “re-begin learning” to Allen Jack Edwards, author of numerous books on aging and dementia. “Edwards said, ‘If you’ve learned something, you never totally forget. You continue to learn based on memory,’” Ansello said. “In other words, [by learning] you create a strong base for subsequent learning.”

Lawrence C. Katz, Ph.D. and Manning Rubin have coined the phrase neurobic exercise to describe certain mental workouts that help keep our brain sharp. Katz and Rubin are authors of *Keep Your Brain Alive: 83 neurobic exercises to help prevent memory loss and increase mental fitness*.

Although we activate our senses daily, the authors say that not everything is novel or provides the kind or level of stimulation nerve cells need to activate new brain circuits. A neurobic exercise deliberately changes your patterns of activity. One example of this is switching your normal writing hand.

“When you change to writing left handed [if you’re right handed], the large network of connections, circuits and brain areas involved in writing with your left hand, which are normally rarely used, are now activated on the right side of your brain,” the authors say. “Suddenly your brain is confronted with an engaging task that’s interesting, challenging, fun and potentially frustrating.”

You can create your own neurobic exercises. Katz and Rubin offer a few simple examples to get you started. Try getting dressed for work with your eyes closed, take a completely new route to work or completely rearrange your office and desktop.

### **Building your retirement brain account**

Retirees today are abandoning their televisions, retiring their rockers and are embracing activity and lifelong learning. “It used to be, not so long ago, that the number one activity in senior centers was watching TV,” Ansello said. “They were addressing the least common denominator. That is changing and none too soon.”

"It's easier to passively watch TV than exert yourself (assuming the absence of physical limitations)," he said.

Fortunately, today there is a wealth of effective educational programming for older adults.

In Richmond, there are two lifelong learning centers and an abundance of smaller programs that provide enriching experiences and ongoing education for adults over age 50.

The Lifelong Learning Institute in Chesterfield County grew out of the Virginia Center on Aging. For \$150, adults 50 and over can take as many classes as they'd like during the year. Classes run during spring, fall and summer sessions, Monday through Thursday, during the day.

According to director Debbie Leidheiser, the LLI offers college-level, non-credit classes in a multitude of topics, including history, language, art and special interest classes. "All of our faculty are volunteers who are professionals or retired and have an area of expertise," she said. The classes are held in a building behind Sycamore Square, except for computer classes, which are held in donated labs at John Tyler Community College, Midlothian campus, or Brandermill Church.

"Our students want to keep their mind active and learn about new topics. It's social as much as it's educational," Leidheiser explained.

Across town, the University of Richmond hosts one of 73 Osher Lifelong Learning Institutes. Through the School of Continuing Studies, adults 50 and older can choose from an extensive array of undergraduate credit courses to audit, special interest mini-courses, community service projects, performing arts events and more.

If you're looking for a fun way to keep your brain sharp, borrow a page from your grandchildren's playbook: hand-held game machines. Nintendo, hoping to cash in the growing boomer population that fears losing mental sharpness, just launched a new game in the United States called "Brain Age: Train Your Brain in Minutes a Day!" Measure your brain's age with a series of tests before you begin your training, and then see how the exercises lower your brain age. Don't take the results too seriously, however!

For adults concerned about cognitive diseases, the Alzheimer's Association has recently established a program called Maintain Your Brain™, said William & Mary's Jensen. "This program is based on the findings that what we do mentally and physically, as well as what we eat, directly impacts our brain health. Keeping our brain and our body active may be the key to reducing risk factors for dementia and other chronic conditions."

According to the Alzheimer's Association, Richmond Chapter, an estimated four million Americans, and more than 100,000 Virginians, have Alzheimer's. It affects 10 percent of

people over 65 and 50 percent of those 85 and older and can occur in people in their 40s and 50s. Alzheimer's disease is a progressive, degenerative disease of the brain resulting in impaired memory severe enough to interfere with everyday life.

Dementia is a loss of mental function in two or more areas such as language, memory, visual and spatial abilities or judgment severe enough to interfere with daily life. Dementia itself is not a disease but is caused by diseases such as Alzheimer's.

### **Food for thought**

The expression "you are what you eat" is a literal translation when it comes to brain health.

"Nutrition is important," said Jensen. "Eating foods high in folic acid, fiber, antioxidants and Omega-3 fatty acids keeps the brain and the heart healthy. Antioxidants [found especially in vegetables], in particular, fight the effects of cell damage caused by free radicals, which are unstable molecules that damage other cells and speed up the aging process."

Adequate intake of fruits and vegetables should be a priority for middle-aged and older adults. While they are all good for you, there are few standouts for enhancing brain health.

In research studies, broccoli and cauliflower and other cruciferous vegetables appear to slow memory loss. Leafy green vegetables such as spinach are rich in folate, which helps prevent strokes, a major cause of dementia, and reduces the risk of Alzheimer's disease. And blueberries top the list when it comes to preventative antioxidants.

What you don't eat is also important. Avoiding trans fat and saturated fat may help prevent memory loss, although healthy fats, such as those found in moderate portions of nuts and certain oils, are good for your brain.

Just as your body requires physical activity for optimal health, so does the brain. "If you have poor cardiovascular function, it can impede nutrients and oxygen to the brain," Ansello said.

Jensen adds, "Engaging in physical activity, which could be as simple as a 30-minute walk several times per week, increases mental alertness, reduces the incidence of depression and strengthens the heart."

### **Just do it**

Authors Cusack and Thompson offer several tips for developing mental fitness – at any age.

**Set goals that reflect your purpose and passion.** Ansello, who has interviewed dozens of folks in their 90s and 100s, finds a common theme among people who live to a ripe old age: they have dreams and they still have a sense of wonder about the world around them. "These characteristics are hallmarks of healthy aging," he said.

**Utilize the tool of power thinking.** “Power thinking is the process of actively replacing your negative beliefs with positive ones,” according to Cusack and Thompson. “Our beliefs have tremendous power, more power than most of us realize.”

**Explore your creativity.** The more life experiences a person has, the more creative he or she will become as a result, Cusack and Thompson say. Creativity is a vital component of good mental fitness.

**Develop a positive mental attitude.** A positive attitude is not a panacea for all of life’s challenges, but it does pay to look for the bright side or the opportunity, even in negative situations.

**Improve your memory.** Good news: Cusack and Thompson said the danger in memory loss is not old age; rather, it’s primarily laziness and nonproductive routines. Use repetition and tricks to help remember someone’s name or where you put your reading glasses. See the accompanying box for specific tips.

**Speak your mind.** “Speaking effectively is an art,” say Cusack and Thompson. “It’s an excellent way to train your mind and to cultivate a vocabulary and expressive style that is truly yours. Seize every opportunity for speaking your mind. It gives your brain cells a good workout.”

The most important thing, say the authors, and the bottom line is **just do something!** Action and effort go a very long way in preserving a clear, healthy mind.

So, while there are no guarantees, there’s a lot you can do to take charge of your own mental acuity as you age. Memory loss and other decline in brain functioning are not inevitable. Keep your brain fit with mental challenges, eat right and exercise. And remember: That’s good advice for everyone!

### **Box: Memory-jogging techniques**

**When you’re out and about.** Don’t let your location be an excuse for forgetting. When you’re out and need to remember something, use your cell phone to call your home or office and leave yourself a reminder voicemail message.

**When you’re driving.** If you’re driving and suddenly remember something important, pop open your glove back – when it’s safe, of course. When you reach your destination, you’ll notice the door ajar and it will jog your memory.

**When you’re relaxing.** Just because you suddenly remembered something important, there’s no need to get up right away. Find something handy and set it on the floor where you must walk. When you get up and see the errant item, it will trigger a reminder.

**When it's in the fridge.** Place your keys in the fridge alongside your lunch or the casserole you must bring to your potluck. You won't get far without either!

**When it's all gone.** Have you reached the end of the laundry detergent or toothpaste? Leave the empty container out where you'll see it. You'll remember to add it to your shopping list.

**When you're taking antibiotics.** Studies show that as many as half the people taking antibiotics don't follow instructions because it's hard to keep track of doses. Tape a sheet of paper inside your cabinet with dates and times for each dose and cross them off the list as you take your medication. Hopefully you'll reach the end of your schedule and your medicine at the same time.

**Box: Resources:**

**Osher Lifelong Learning Institute**

University of Richmond School of Continuing Studies

[www.richmond.edu/scs/osher](http://www.richmond.edu/scs/osher)

804-289-8133

**Lifelong Learning Institute in Chesterfield**

Brandermill Woods Retirement Community

<http://www.brandermillwoods.com/Community/LLI.html>

(804) 744-0141

Summer session runs June through August

**Alzheimer's Association, Greater Richmond Chapter**

<http://www.richmondalzheimers.org/maintainbrain.htm>

Visit website to learn about free educational programs

804-967-2580

Helpline: 800-272-3900

**Virginia Center on Aging at VCU**

<http://www.vcu.edu/vcoa/index.htm>

**AARP**

<http://www.aarp.org>

The AARP site has many articles about brain health and disease

*Mental Fitness for Life: 7 Steps to Healthy Aging*, Sandra Cusack and Wendy Thompson, published March 2006