

# Keeping Your Brain Healthy







Johnny's mother has three children. The first child is named April. The second child is named May. What is the third child's name? The answer? Johnny, of course.



### Brain teasers like this have always been enjoyable,

but do they actually have a positive effect on the brain? It's something you've wondered more so recently than ever before. You hear brain health discussed on Morning Edition; you read about it in The Wall Street Journal; you see stories regarding it on Nightly News with Brian Williams.

Outside the media, you know somebody—a family member, friend, neighbor, or colleague—who has been affected by a cognitive impairment in some way. You've seen firsthand the toll Alzheimer's or other brain diseases can take on an individual and those who care for him or her.

As you get older, you've worked hard to maintain your independence by eating well and staying active. But now you're recognizing keeping your brain healthy is just as important. You want to know what you can do to keep your mind sharp and improve memory. And you want to know how you can best prepare for the possibility of declined brain health for you or a loved one.

### We address these brain health topics and more in the following pages.



### Dementia, Alzheimer's Disease & Their Differences

When it comes to discussing a decline in brain health, two terms always seem to sneak their way into every conversation: dementia and Alzheimer's disease. Many people use these terms interchangeably; however, they are not the same.

Dementia is a symptom or set of symptoms that cause a loss in intellectual abilities such as memory, language, visuospatial skills, calculation, abstract reasoning, judgement, and behavior. The impairment in cognitive function is commonly accompanied by deterioration in emotional control, social behavior, or motivation.

> Dementia is not a disease. Doctors diagnose dementia if a person has difficulty with at least two brain functions, for example, memory loss, impaired judgement or reasoning, or the inability to perform daily tasks.

- Jennifer Brush, M.A., CCC-SLP Director of Healthcare Research and Education at the Brush Development Company

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There are several causes of dementia, many of which are reversible or treatable. These include infections (such as a urinary tract infection), medication side effects, and vitamin deficiency. Then there are causes for dementia that are progressive and non-reversible, the most common of which is Alzheimer's disease. According to the *World Health Organization (WHO)*, Alzheimer's disease may contribute to 60-70 percent of dementia cases.

### Other irreversible causes for dementia include:

- Vascular Dementia
- Lewy Body Dementia
- Chronic Alcohol or Drug Use
- Frontal Temporal Dementia
  Traumatic Brain Injury
- Brain Tumors

Parkinson's Disease



## The WHO estimates approximately 35.6 million people are living with dementia worldwide. There are 7.7 million new cases of

dementia every year. Dementia affects every person differently; however, the signs of dementia can be understood in three stages:





### EARLY STAGE

Early signs of dementia are usually mild and gradual. Common signs include forgetfulness, losing track of time, and becoming lost in familiar settings. Often, these signs are overlooked or falsely dismissed as normal parts of aging.

### **MIDDLE STAGE**

As dementia progresses to the middle stage, signs become more clear and restricting. A person with dementia will forget recent events and people's names and faces. He or she may experience behavior changes, including wandering and repeated questioning, and his or her personal hygiene will decline.

### LATE STAGE

The late stage of dementia is one of near total dependence and inactivity. Memory disturbances are serious: A person will often be unaware of time and place and will have difficulty recognizing relatives and friends. The physical tolls of dementia also become more obvious. A person will often have difficulty walking and experience behavior changes (such as aggression) that may escalate.



### The boundaries between different forms of dementia are indistinct, and mixed forms often co-exist.

For this reason, it's important to have a complete evaluation from qualified physicians if you or a loved one is exhibiting any signs of dementia. Undergoing a *geriatric assessment*, which is designed to evaluate an older person's functional ability, physical health, cognition and mental health, and socioenvironmental circumstances, can yield a complete list of medical and functional problems and psychosocial issues.

According to Brush, there are a number of cognitive and neurological tests that should be done when a person displays signs of dementia. Tests should examine memory, orientation, reasoning, judgement, attention, language skills, balance, reflexes, and movements. Physicians should also order a CT scan or MRI to check for stroke or tumors as well as complete blood work to rule out possible vitamin deficiencies or problems with the thyroid. Additionally, Brush recommends a person exhibiting signs of dementia undergo a psychiatric evaluation because depression is often misdiagnosed as dementia.



### Keeping Your Brain Healthy As You Get Older

### KENDAL® at Home



### Proactive Steps to Keep Your Mind Sharp

There is no treatment currently available to cure any of the diseases that cause dementia or to alter its progressive course. However, there are steps every individual can take throughout his or her lifetime to sharpen the mind.

### LEARN NEW SKILLS

Learning a challenging new activity can strengthen the connections between parts of your brain. In <u>a recent study</u>, Dr. Denise Park, a neuroscientist at the University of Texas at Dallas, randomly assigned 200 older adults to spend 15 hours a week for three months learning either quilting or digital photography.

Compared to a "social group" that watched movies or reminisced about past vacations and a group that worked quietly at home listening to the radio or playing easy games and puzzles, the groups challenged to learn a new skill experienced significant gains in memory. One year later, they had retained their improved memory function.



### EXERCISE

### Having a regular fitness program is the most important thing people can do for their brain.

#### - Jennifer Brush, M.A., CCC-SLP

Director of Healthcare Research and Education at the Brush Development Company

<u>Recent research</u> from UCLA demonstrated that exercise increases growth factors in the brain, making it easier for the brain to grow new neuronal connections. And a study published in the British Journal of Sports Medicine found aerobic exercise seems to boost the size of the hippocampus, which is involved in verbal memory and learning.

According to Michele Tarsitano-Amato, board certified registered art therapist, dementia specialist, and director of Creative Arts Therapy at Kendal at Oberlin, a retirement living community in Oberlin, OH, the best exercise for brain health is aerobic walking. "Out of all of the different wellness areas and all the different things you can do, walking is the number one contributor to health, regardless if it's your physical, mental, or spiritual health," she says.

### **RELAX & SLEEP WELL**

Mindful relaxation, a stress management technique that focuses on breathing to calm the body, can help reduce negative health effects of stress on your body and mind. In a *Harvard study*, adults who practiced mindful stress reduction for eight weeks exhibited a significant increase in the density of gray matter in the hippocampus.

Consistently getting a good night's rest is another way to keep your brain sharp. "Some recent research shows sticking to a regular sleep schedule, limiting caffeine and alcohol right before you go to bed, and getting adequate sleep in regular patterns is important," Brush says. Most adults need seven or eight hours of sleep each night.

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### **CONSUME A HEALTHY DIET**

You know what you eat affects more than your waistline. You may also know certain foods have been shown to enhance brain function, improve mental performance, or decrease the risk of memory loss.

A *Harvard study*, for example, shows drinking two cups of hot chocolate per day improved blood flow and sparks energy in the brain. Other studies have linked daily *coffee consumption* to reduced risk of dementia. Other *"brain foods"* include berries (such as strawberries and blueberries), whole grains, oily fish, tomatoes, and pumpkin seeds.



### SOCIALIZE

<u>Research</u> shows close relationships and large social networks have a positive impact on memory and cognitive function as people age. "Older adults who have a good, strong social support network are less likely to develop cognitive impairment," Brush says. Social networks may also facilitate healthy behaviors, such as exercise.

### ALTER YOUR ATTITUDE

Being happy matters more to your brain than you might think. According to *Psychology Today*, being happy stimulates the growth of nerve connections, improves cognition by increasing mental productivity, improves your ability to analyze and think, and increases attentiveness.

"Older adults who really feel they can tackle anything, who have that sense of self-efficacy, that can-do attitude, are less likely to develop cognitive difficulty," Brush says. *Studies also show* happy people tend to live longer and experience better health than unhappy people.



### Can I Train my Brain with Brain Games?

The effectiveness of brain games—like those from well-known Internet brain training service Lumosity—is a controversial topic. A <u>2010 study by Dr. Adrian Owen</u>, which tracked 11,000 adults over a six-week computer-based regime designed to improve reasoning, memory, planning, visuospatial skills, and attention, reported benefits in executing the tasks themselves but little general advantage in other areas. Owen's concluded the players improved at the games themselves through familiarity rather than showing any marked improvement in fluid intelligence (the ability to solve novel problems and adapt to new situations).

That doesn't surprise Tarsitano-Amato who uses Lumosity in conjunction with other memoryimproving techniques in a brain health class she teaches at Kendal at Oberlin. She says to get the real benefits of brain games, a person must approach them with a specific goal in mind. "It's more than just playing games. You have to be able to translate the practice you're doing on these games into what it means or what's going on for you personally," she says.

She offers the example of remembering names, a challenge for many people. Tarsitano-Amato's class teaches students why it's difficult to remember names, what parts of the brain are involved in imprinting and cataloguing names, and techniques for reinforcing a person's name so it's easier to remember. Lumosity games act as that reinforcement.

In other words, brain games are merely a tool, not the solution. "Practicing tasks that are cognitively stimulating is a good thing," Brush says.

### People aren't going to hurt themselves by playing brain games, but it is not a means to cure cognitive impairment.

- Jennifer Brush, M.A., CCC-SLP Director of Healthcare Research and Education at the Brush Development Company



### Planning for the Possibility of Declined Brain Health

Dementia is physically, emotionally, and economically overwhelming for the families of affected people and their care partners. Preparing for the possibility of declined brain health won't change that; however, getting your affairs in order now while you are healthy can lessen future burdens.

### PREPARING LEGAL DOCUMENTS

ESTATEP

According to Brush, all older adults-regardless of if they have a cognitive impairment-should prepare for the future by taking a few practical steps.

"The first thing to do would be to talk to your family and spouse about your advance directive. It's important for you to communicate how you would like to be cared for if you are no longer able to make those decisions," she says. "Your estate planning should also be taken care of. It's critical to plan ahead so you can maximize the use and protection of your assets in case you have dementia or other health problem in the future."

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She continues, "You should also think about emergency preparedness. I recommend families prepare an emergency folder to keep in a prominent place so an emergency or health care professional, friend or family member would have easy access to it."

### In this folder, Brush advises to include:

- A complete medical history
- A current list of all medications

 Copies of health care proxy and power of attorney

Known allergies

• Copies of insurance cards

For those with advanced dementia, include known triggers that cause the person to become agitated as well as "quick tricks" to calm the person.

Household finances are another consideration. According to Brush, it's wise to transfer all finances and accounts related to bill paying into the name of someone other than the person with dementia. This includes credit cards, bank accounts, and investment accounts.

For more detailed information on preparing legal documents and talking with loved ones, see "<u>I Care:</u> <u>A Handbook for Care Partners of People with Dementia</u>," by Jennifer Brush and Kerry Mills, MPA.



### MAKING A LONG-TERM HEALTHCARE PLAN

Government figures show nearly seven in 10 Americans will need long-term care at some point after the age of 65. Yet a recent poll by The Associated Press-NORC Center for Public Affairs Research indicates a mere fraction of older adults (20 percent among those surveyed) think they will need long-term care.

There's no stopping the body and mind from aging, and there's no way of knowing what your health needs will be in five, 10, 20, or 30 years. That's why it's vital to begin exploring long-term healthcare options now while you are physically and mentally healthy and active.

For many older adults, continuing care retirement communities (CCRCs) are the ideal choice. When you relocate to a retirement living community, not only will you have access to quality person-centered care, you'll also have abundant opportunities for exercise, socialization, healthy eating, and learning new skills, all of which help keep your mind sharp.

If you know you would prefer to remain in your own home as you age, explore services like Kendal at Home, a unique continuing care program that provides comprehensive services designed to focus on your personal wellness and independence.

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### **MODIFYING THE HOME**

Modifying the home environment with certain universal design features—those that create an attractive, stylish space that everyone regardless of age, size, or ability can live in or visit—can improve safety and promote independence for people of all ages regardless of cognitive health. You can easily make small modifications to your home by installing grab bars in the bathroom, replacing non-twisting faucets, fixtures, and doorknobs with those that can be operated with a closed fist, and increasing lighting in and around the house.

Home modifications for people with dementia in the early to mid-stages are usually made to compensate for memory, vision, and hearing impairments. These modifications are usually simple and do not require any special expertise. Home modifications for those in the later stages of the disease usually compensate for mobility and significant cognitive impairments. Often, these modifications will require a skilled contractor.

Every home and every person with dementia is unique. Therefore, a home modification that works for one person may not work for another. The best modifications are those tailored to the individual

> and home and created to take full advantage of a person's ability to continue to participate in daily activities and chores for as long as possible.



### SEEKING OUTSIDE CARE

When a loved one is ill, we want to care for them regardless of experience. When it comes to dementia, spouses and/or family members often assume the role of care partners. Acting as a care partner for a loved one with dementia is a noble choice; however, it's important to recognize you cannot care for your loved one alone.

"Primary care partners need to be able to take breaks, to take care of themselves, to be healthy. They need to be able to fulfill their goals and personal needs. They need to have an opportunity to socialize," Brush says. "Care partners who try to take on 100 percent of the responsibilities often become burnt out. They become resentful, stressed, sick. Having a care team is essential."

If you ever find yourself in the position of care partner, you must also realize there may come a time when you can no longer adequately care for your loved one at home. "Sometimes people feel that, if they need to move their loved ones to care communities, they haven't done a good job. That's not true. There is nothing wrong with saying you're not able to care for someone in the home any more," Brush says. "Moving them to a place where people are trained to take care of their needs means the person will have a health care team to meet their needs as well as opportunities to socialize."



### Life Doesn't End when Dementia Begins

If a loved one is diagnosed with a progressive, non-treatable cause of dementia like Alzheimer's disease, life will change drastically. But what's more important than the disease is how you approach it.

"When you find yourself taking on that care partnering role, the most important thing is that you recognize there is a change in mindset and attitude you need to make," Brush says. "People with dementia are not able to control the changes going on in their brains. They are not able to control how they react to situations, how they process information, or how they communicate, but care partners are able to control their attitudes and reactions."

She continues, "People with dementia have goals for their lives. It is the role of a care partner to help them fill in the gaps to help them succeed in what they're choosing to do."

For more information on caring for those with cognitive impairments, see "I Care: A Handbook for Care Partners of People with Dementia." For information on how Kendal at Home helps older adults keep their minds sharp or information regarding their work in developing innovative programs and training for those with dementia and their care partners, visit us online at <u>www.kendalathome.org.</u>

This guide offers basic information regarding keeping your brain healthy as you age. While it is intended to increase knowledge of brain health and actions a person can take to plan for cognitive decline, it should not be used as a replacement for a physician's advice or legal professional's counsel.



If you would like to learn more about Kendal at Home, contact us today!

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