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Memory & Focus

Some people think getting older often means getting slower. It's true that as we age, we may find we can't walk quite as fast, climb as many flights of stairs, or play sports as hard as we could when we were twenty. However, we know that a healthy diet, regular exercise, and the right dietary supplements can make a huge difference in our health, strength, and mobility as we age.

This is true for our mental abilities as well. We may not think as quickly as we used to, might misplace our keys more often, and experience more "tip-of-my-tongue" word searches. These so-called "middle-aged moments" most often have minor consequences: a missed appointment or the forgotten name of an acquaintance. However, in a small number of cases, these mental slips can also be the first sign of serious diseases of aging, such as Alzheimer's disease or other dementias.

The good news is, just like our *physical* health, we can improve how we function mentally. Eating healthy foods, taking the right supplements, and participating in regular mental exercise can significantly increase our *mental* endurance, improve our memory, and optimize our ability to focus.

In fact, groundbreaking and ongoing research has discovered that specific herbs and vitamins, particularly, *Ginkgo biloba*, *Bacopa monnieri*, folic acid, vitamins B6 and B12, and the important co-enzyme and antioxidant, alpha lipoic acid, all have powerful effects on memory and focus. These nutritional supplements have been scientifically shown to quickly reduce mild age-related memory changes, as well as greatly reducing the risk of developing more serious problems like Alzheimer's disease, Parkinson's disease, or other brain diseases later on in life.

Q. What is the difference between age-related memory decline and dementia?

A. As we get older, our nerve cells need more time to spark and connect, slowing the process of bringing memories and events to mind. Another theory is that, as we age, we accumulate more knowledge and memories. The mind then has to sort through much more data to reference a memory. Almost everyone middle-aged and older notices this slowdown. Memory decline and problems with mental focus are a normal part of aging.^{1,2}

While it's true that the older we get, our chances of developing Alzheimer's disease

increase, this illness is *not* a normal part of aging. Alzheimer's is an irreversible, progressive dementia that slowly kills nerve cells in areas of the brain where memory, learning, thought, and language take place. Often first appearing as people begin retirement, Alzheimer's disease makes the "golden years" a time of loss and devastation. Memories vanish, relationships are erased, and independence is gradually lost.³

After Alzheimer's disease, the second most common cause of dementia in older people is multi-infarct dementia. Caused by a series of mini-strokes that damage or destroy brain tissue over time, multi-infarct demen-

tia usually affects people between the ages of 60 and 75. Men are slightly more at risk. High blood pressure is the most significant risk factor for multi-infarct dementia.^{1,2}

Multiple sclerosis, Parkinson's disease, strokes, Huntington's disease, Creutzfeldt-Jakob disease, and alcoholism can also cause progressive and irreversible dementia.²

While normal age-related memory and focus loss may mean we can't remember where we put our car keys, Alzheimer's disease and other dementias may mean we can't remember what our car keys are used for.

Q. Are any types of memory and focus loss reversible?

A. Yes. As women enter menopause, they frequently experience trouble remembering. This memory interference is caused by hormone fluctuations and can affect speech, thinking, and attention. Symptoms of menopause-related memory loss and poor focus include recognizing faces

HEALTH FACT:

Taking the scientifically validated nutritional supplements ginkgo, bacopa, vitamins B6 and B12, folic acid, and ALA can improve age-related memory loss and potentially prevent the development of Alzheimer's disease and other dementias as we age.

less well than in the past, missing scheduled appointments, and misplacing articles. Once a woman passes through menopause, her ability to remember and focus most often improves.⁴

Certain medications, such as the heavily prescribed cholesterol lowering drugs called statins, can temporarily interfere with memory. Low vitamin B levels, atherosclerosis (hardening of the arteries), and thyroid disease can cause disruption of mental focus and memory loss. These problems usually resolve with treatment of the underlying disorder.^{1,3}

A certain type of stroke, called a transient ischemic attack (TIA) can cause memory loss that may be reversible. A TIA is a brief episode of stroke symp-

oms that come on quickly. Sometimes referred to as a "mini-stroke" or "warning stroke," a TIA is caused by a temporary interruption in the blood supply to the brain. But, unlike a stroke, a TIA does not lead to permanent brain damage. While a TIA is usually short-lived, it is likely to occur again if not properly managed and can be a warning of future stroke.³

Q. I seem to forget a lot of things. How can I be sure I don't have Alzheimer's disease or some other dementia?

A. If you, or others around you, are concerned about your memory, you should be examined by your health care practitioner. Once the cause of your memory and focus problem is diagnosed, treatment can begin. All causes of memory loss and mental focus disruption can be treated, even Alzheimer's disease. While presently irreversible dementias cannot be cured, the *progression* of the disease may be slowed, and in some cases, stopped.^{1,3}

Research on memory loss and mental focus disruption has increased dramatically in the past few years. Discoveries regarding Alzheimer's disease and other dementias, as well as age-related loss of memory and focus have recently been made. Most

importantly, many new treatment options, including the use of nutritional supplements, have been developed.⁵⁻⁷

Q. How can nutritional supplements improve memory and focus?

A. Several herbs and vitamins have been demonstrated to improve memory and mental focus. While some nutritional supplements work *now* to improve memory and focus, others work to prevent problems we might develop *later*.

One of the most researched herbs, *Ginkgo biloba*, has been found to be effective in improving currently experienced memory and focus loss; in other words, problems we are having now. Ginkgo has been studied in individuals who have age-related memory loss, as well as in those

with Alzheimer's disease and other dementias. It seems that ginkgo can improve many brain functions, such as speeding up memory recall, protecting brain cells from chemical changes and free radical damage, improving blood flow to the brain, and helping nerve cells communicate with each other better.⁸

Several studies examined ginkgo's effect in healthy people who were experiencing normal age-related memory and focus problems. They determined that ginkgo improved memory, attention, and clarity of thinking.⁹⁻¹³ Ginkgo can also help restore memories that may be lost in TIAs, those mini-strokes that were discussed earlier.^{14,15}

In studies of individuals with Alzheimer's disease, the results showed that ginkgo slowed down the disease in those severely afflicted and actually improved those with very mild or moderate disease.¹⁶⁻¹⁸ In one of these studies, ginkgo was compared to four prescription cholinesterase inhibitors, medications commonly used to treat individuals with Alzheimer's disease. Using written mental tests, the researchers found that ginkgo worked just as effectively as the prescription drugs. While those taking one of the cholinesterase inhibitors dropped out of the study because of disturbing side effects, ginkgo had no side effects and improved symptoms equally as well.¹⁷

Q. How does Bacopa monnieri help memory and focus?

A. Like ginkgo, bacopa works on the memory and focus problems we are experiencing now. Bacopa grows in India and has a long history as a natural medicine.²⁰ In a recent study, bacopa was compared to a placebo in its effect on memory. Adults between the ages of 40 and 65 were divided into 2 groups. Half got the bacopa and half got a placebo. Researchers, who didn't know which patients got the bacopa, tested both groups' memory before the study, at three months, and when the study ended six weeks later. The results showed the group taking the bacopa extract was able to remember new information much better than the group taking the placebo.²¹

Q. How does alpha lipoic acid help memory and focus?

A. Alpha lipoic acid (ALA) is a vitamin-like coenzyme that prevents memory and focus problems we might have later on. ALA is an incredibly powerful antioxidant that works especially well with other antioxidants.²²⁻²⁴ An antioxidant's job is to disarm damaging free radicals, those naturally occurring molecules that damage cells and cause disease.²⁵ ALA has potent antioxidant action in almost all the tissues of the body, helps generate energy from food and oxygen, can get directly to the nerves, and plays an important role in the "antioxidant network".²²

Researchers have discovered unmistakable free radical damage in Alzheimer's disease.^{26,27} Accordingly, ALA's effect in the illness has been studied extensively. Researchers have learned that ALA not only prevents free radical damage in Alzheimer's disease, but also regulates protective chemicals in the brain that help improve symptoms.^{22-24,28}

In a recent study, people with Alzheimer's disease were given tests that measured thought and memory. They were then given ALA supplements for an average of 11 months. At the end of the study, the participants were tested again. The results showed that every person had higher scores on the thought and memory tests than they had at the beginning.²⁸

ALA is unique among antioxidants, as it can neutralize free radicals in both the fat and the water of cells. In contrast, the well-known vitamin C is only water-soluble, while the popular antioxidant vitamin E is only soluble in fat.²² Because ALA is easily absorbed, enters cells and tissues in a highly usable form, performs a variety of antioxidant actions (including rejuvenation of other antioxidants), and is both fat and water soluble, many researchers label ALA an "ideal antioxidant".^{22,28}

Q. How do vitamins B12 and B6 help memory and focus?

A. Vitamin B6 is an essential nutrient in the regulation of nerve transmissions. It is required by the nervous system for normal brain function, and it may also help with mood.²⁹

Like ALA, vitamins B6 and B12 help prevent memory and focus problems further on down the road. One important recent discovery is the role of homocysteine in brain diseases. These important B vitamins can reduce homocysteine, an amino acid (the building blocks of protein) that is produced in the human body. Homocysteine irritates blood vessels, makes it easier for blood to clot, and can cause cholesterol to become more harmful.³⁰

Researchers have learned that people with Alzheimer's and other dementias (including Parkinson's disease) have elevated homocysteine levels.³¹ In fact, the amount of homocysteine in the blood corresponds to the severity of the disease.³⁰ Most people with a high homocysteine level don't have enough folate, vitamin B6 or vitamin B12 in their diet. Replacing these vitamins helps return the homocysteine level to normal.³⁰⁻³²

Reducing homocysteine levels may prevent the occurrence of Alzheimer's disease, or other brain diseases, and improve the symptoms of those already afflicted.^{32,33}

Q. What about folic acid?

A. Folic acid has long been recognized as a vital nutrient for the brain and spinal cord. Recent research has demonstrated that folic acid has significant importance in Alzheimer's disease.

An ongoing study of Alzheimer's disease that began in 1986 has been studying 678 members of the School Sisters of Notre Dame in the hopes of learning how the disease develops, how it might be prevented, and how to treat it. Data collected in the study includes biographies the sisters wrote upon entrance to the order, blood samples from the sisters while they are living, and information gained from the voluntary donation of their brains after death.³⁴

Aptly named the "Nun Study," groundbreaking discoveries have already been made. It seems that diet and nutrition have a dramatic influence in the development of Alzheimer's disease. Sisters who had high levels of folic acid showed little evidence of Alzheimer's-type damage in their brains after death. And, those nuns who had Alzheimer's disease

in spite of high folic acid levels had profoundly *less* brain damage from the disease. In fact, some sisters who had no outward evidence of Alzheimer's disease while they were living had surprisingly extensive damage in their brains after death.³⁵

Q. Besides taking ginkgo, bacopa, B vitamins, folic acid, and ALA, are there other things I can do to prevent Alzheimer's disease?

A. You may not know if you have a serious B-vitamin deficiency. Routine lab work does not measure the amount of B vitamins in your blood. You might want to ask your health care practitioner to have your B vitamin level in your blood measured, especially if you are having memory and focus problems. Keep in mind that this type of lab work is fairly expensive, however.

Supplements do not replace the need for a healthy diet, especially a diet with high levels of fruits, vegetables, whole grains and omega-3 fatty acids. Keeping your body healthy helps keep your brain healthy as well.

It also seems that the use-it-or-lose-it theory applies to our brain as well as our body. Research has shown that people who seek opportunities to keep mentally active, such as reading books, newspapers, and magazines, solving crossword puzzles, playing card games, and visiting museums, lower their risk of Alzheimer's disease.³⁶

Conclusion

Dealing with age-related memory loss may be both frustrating and frightening. As the population of America gets older, dementia is continuing to affect a larger proportion of society.^{1,3} Prevention of these devastating diseases has become increasingly important.^{1,3,37}

In fact, more and more research shows prevention of Alzheimer's disease and other dementias is a reality. And age-related memory loss can successfully be improved as well. Taking the scientifically validated nutritional supplements ginkgo, bacopa, vitamins B6 and B12, folic acid, and ALA can improve age-related memory loss and potentially prevent the development of Alzheimer's disease and other dementias as we age.

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