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CASE IN POINT: Lifestyle Approaches to Prevent Alzheimer's Disease and Help Those Diagnosed in Early Stage

We remain without a cure for Alzheimer's disease. Here's what you can do now to reduce risk and/or mitigate progression. By Dr. Karen L. Gilbert, DNP, MS, RN, CDP





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Lifestyle Approaches to Prevent Alzheimer's Disease and Help Those Diagnosed in Early Stage

We remain without a cure for Alzheimer's disease. Here's what you can do now to reduce risk and/or mitigate progression.

BY DR. KAREN L. GILBERT, DNP, MS, RN, CDP

Although the pathology that causes Alzheimer's disease (AD), recognized as the most prevalent of the irreversible, progressive neurocognitive disorders, was first identified in 1906, we are still without a cure. In fact, there is no treatment that halts progression or reverses symptoms.

Although a number of interventions have been introduced, few have proven to be consistently effective. Also, funding for research was reduced in 2025. Forty percent of the Alzheimer's Disease Research Centers in the United States (14 of 35) lost federal funding as of March 2025 (Howard, 2025).

A disease with neither cure nor substantive

disease-modifying treatment, safe and effective for all, suggests that other approaches are needed. The recent reductions in funding for Alzheimer's research may also serve as incentive and a *call to action* for emphasizing what **can** be done to mitigate the incidence of new diagnoses of symptomatic Alzheimer's disease, and to improve symptoms in those diagnosed with early-stage disease.

Limitations: Diagnosis and Medical Intervention

The challenges with diagnosis of Alzheimer's disease are numerous. First and foremost, the abnormal

accumulations of amyloid and tau proteins that cause Alzheimer's disease may begin 20 years or more before a person perceives or is observed by others to have symptoms of cognitive impairment.

When early symptoms of cognitive impairment emerge, the person may believe the changes are part of normal aging. Family members may believe the same. Often, no evaluation is sought because of this misconception and/or related to fear of a diagnosis for a disease with no cure. Other barriers to evaluation include concerns about the reactions of others, social isolation, and perceived stigma. Consequently, by the time a neurological exam takes place, the person may have progressed beyond early stage and unlikely to be helped substantially by existing treatments.

Two of the most popular oral medications, Aricept (generic, donepezil) and Namenda (generic, memantine) were approved by the Food and Drug Administration (FDA) in 1996 and 2003, respectively.

Aricept is a cholinesterase inhibitor. By inhibiting the enzyme cholinesterase, Aricept acts to increase availability of acetylcholine in the brain, the neurotransmitter that plays a role in communication between the brain's nerve cells (neurons), supporting memory, learning, alertness, voluntary muscle movement, and sleep cycles.

Other FDA-approved cholinesterase inhibitors include:

- Exelon (generic, rivastigmine, approved in 2000); and
 - Razadyne (generic, galantamine, approved in 2001).
- Namenda acts to block the negative effects of excessive glutamate that is produced by neurons damaged in Alzheimer's disease. In excess, glutamate **impacts** neurons by "overexciting" them and leading to **neuron** damage or death.

The cholinesterase inhibitors are typically prescribed in various stages of Alzheimer's disease while Namenda is generally prescribed in moderate to severe stages.

In 2014, the FDA approved Namzaric, indicated for patients with moderate to severe AD. Namzaric does not represent a new medication, as it consists of donepezil and memantine combined in a single pill.

There has been just one new **oral** medication produced since those above were approved nearly a quarter century ago. Zunveyl (generic, benzgalantamine) was approved in 2024, and is also a cholinesterase inhibitor. It is taken orally as a delayed release, enteric-coated medication. As such, Zunveyl may have an advantage over the earlier-approved cholinesterase inhibitors by reducing risk of gastrointestinal side effects, such as nausea, vomiting, and diarrhea.

In 2022, the FDA approved a new preparation of donepezil. Adlarity consists of donepezil delivered via transdermal patch, each patch worn for seven days.

Cholinesterase inhibitors and Namenda may improve symptoms, but they do not appreciably slow progression of AD. The gastrointestinal side effects may cause some patients to discontinue these medications.

Since 2021, research has produced three monoclonal antibodies delivered via infusion. The first in this class, Aduhelm (generic, aducanumab), was approved in June 2021 amid considerable controversy. Criticism included a lack of evidence that Aduhelm actually improved cognitive function (though it may have succeeded in removing amyloid from the brain), the drug's very high initial cost of approximately \$56,000 per year, and its troubling potential side effects of brain swelling and/or brain bleeding. Aduhelm was discontinued in 2024.

Leqembi (generic, lecanemab, approved in 2023) and Kisunla (generic donanemab, approved in 2024) are said to demonstrate greater evidence of benefit and a lower risk of brain swelling or bleeding compared to Aduhelm. Both medications act by removing amyloid (amyloid plaques) from the brain; both claim to achieve about 30 percent less cognitive decline over 18 months, compared to placebo.

Kisunla can be discontinued once the patient's amyloid levels show significant reduction on brain scans. Treatment with Leqembi may need to be continuous in order to maintain its benefits.

It is important to note that patients still *declined* cognitively, though less so over 18 months. Thus, these medications do not stop progression, nor do they reverse the disease. By slowing decline, they both claim to impart an additional eight to ten months of independent living and possibly one and one-half to two years of retained capacity for self-care.

Those who carry the **apolipoprotein E** (APOE) $\epsilon 4$ **gene** variant have a higher risk for brain swelling and bleeding when taking Leqembi or Kisunla. Those with two copies of this gene variant (inherited from both parents) are at greater risk for these side effects than those with one copy, inherited from one parent.

This overview of currently available treatments, and notably their limitations, should be quite concerning. Most research studies have failed to find effective therapeutics. Kim et al. reviewed the scope of clinical trial failures between 2004 and 2021, prior to the approvals of Leqembi and Kisunla (Kim et al., 2022, p. 85). "Efficacy endpoint" refers to measures that indicate whether or not a drug is producing the intended or expected results. The authors explain that therapeutics

were noted to fail “if the trial efficacy endpoint was not met, significant adverse events occurred to prevent continuation of the program, or there were reports that the program was discontinued.” They conclude that only **two percent** of compounds **proceeded** to actual drug development. They refer to Alzheimer’s disease as “the most serious unmet need today” (Kim et al., p. 95).

It is hoped that research will continue to realize discoveries for treatments that dramatically modify the disease, or perhaps constitute a cure. At the same time, a logical approach is for the consideration of actions adults can take now to decrease the risk of developing Alzheimer’s disease; actions that have also been shown to improve function in those diagnosed with early-stage disease.

Taking Action in the Absence of a Cure or Disease-modifying Treatment

It is important to recognize that there are both modifiable and unmodifiable risk factors for developing Alzheimer’s disease. Addressing the numerous **modifiable** risk factors now known to influence risk and believed to help prevent “nearly half” of Alzheimer’s cases is most important and potentially effective in reducing the incidence of future AD diagnoses (Livingston, et al. 2024, p. 572).

The unmodifiable risks include age, genetics, and gender. Age is considered the greatest unmodifiable risk (Alzheimer’s Association, 2025). An estimated 10% of those over age 65 and one-third or more of those over 85 are said to be likely to develop Alzheimer’s disease. Inheriting the $\epsilon 4$ allele (**variant**) of the APOE gene increases risk. The Mayo Clinic reports that inheriting one copy of APOE4 increases one’s risk by two to three times; inheriting two copies increases risk eight to twelve times (Mayo Clinic, 2025).

Notwithstanding the increased risk posed by the APOE4 gene, it is important to recognize that inheritance of this gene does **not** ensure development of Alzheimer’s disease. As other factors contribute to the disease, it is known that there are people with APOE4 variants who do not develop AD, as well as people without the gene who do. This fact further supports focus on the modifiable risk factors.

Approximately two-thirds of people diagnosed with AD are female. Beyond age 60, AD is twice as likely as breast cancer. The impact of APOE4 is said to be greater in women, conferring greater risk whether the woman has one or two copies (Kolahchi et al, 2024). Another explanation for this disproportionate incidence of AD is the impact of age: women live longer than men. It is also believed that estrogen may be

protective, but levels decline with menopause. Finally, women are said to have stronger immune systems than men. This implies a great inflammatory response (Reed-Geaghan, 2022); inflammation contributes to production of amyloid plaques in the brain and is exacerbated by the decrease in estrogen (Briceno Silva et al., 2024).

Strategies for Protecting and Preserving Brain Health

The discovery that the development of AD is multifactorial, with numerous lifestyle strategies influencing risk, offers a multitude of opportunities to decrease one’s risk.

Peer-reviewed literature is rife with differing opinions as to which modifiable risk factor has the most influence on risk for developing AD. It follows that the unique characteristics of individuals would influence which approach would have the most impact on their individual risk profile. For example, one might adhere to an excellent, brain-healthy diet, but also may have smoked heavily. Another might engage in the recommended amount of exercise every week but may eat a less-than-optimal diet. Someone else may have an excellent diet, outstanding exercise regimen, but have little to no socialization and untreated hearing loss.

Symptoms of dementia include memory loss and difficulties with instrumental activities of daily living, such as driving, paying bills, preparing meals, programming the washing machine, managing medication regimens, etc. (Namsrai et al., 2023). Because changes in the brain that may ultimately produce symptoms of dementia are now known to begin “decades before its clinical onset,” strategies for addressing modifiable lifestyle practices may impart greater benefit than if started later in life. Livingston et al. suggests that children be educated on risk factors, noting benefits of a “long duration of education.” The authors define midlife as between the ages of 18 and 65, and note the importance of engaging in brain healthy activities during this period (Livingston et al., 2024, p. 572). Nevertheless, there is broad support for the notion that it is never too late to adopt healthy habits and decrease the risk of cognitive decline.

Approaches that are heart-healthy will also be brain-healthy. Many of these strategies also serve to decrease inflammation throughout the body. Inflammation, though beneficial when responding to an illness or infection, becomes counterproductive if chronic and excessive, contributing to heart disease, diabetes, cancer, and Alzheimer’s disease and related dementia-causing disorders (Falconer, 2024).

Alzheimer's disease has a multifactorial origin, with lifestyle factors now known to play a significant role. New information about contributing factors and preventive strategies now emerges with greater frequency. Evidence-based research suggests that while each protective strategy conveys benefit, the more such strategies one adopts, the greater the protection.

Most encouraging is recent information that healthy diet, exercise, and robust socialization can even achieve improved cognition and function in those with a diagnosis of early stage Alzheimer's disease. In a 2024 online Harvard Gazette article, staff writer Alvin Powell quotes

Dr. Steven Arnold MD, a professor of neurology at Harvard Medical School, as Dr. Arnold expresses the potential benefit of these strategies:

"In my heart of hearts, I think there is something real here. If you do significantly change the metabolic, inflammatory, vascular milieu of the body and the brain, that is good for our brain function. And this diet, exercise, stress reduction/socialization intervention may work as well or better than some of the drugs we use for Alzheimer's Disease" (Powell, 2024).

The following strategies, all evidence-based, are recommended as preventive, but may also help those diagnosed with early-stage Alzheimer's disease:

- **Don't smoke.** Smoking increases one's risk of developing symptoms of dementia through several mechanisms. These include smoking-induced damage to the heart, lungs, and blood vessels, and the release of toxins that induce inflammation. Both types of damage contribute to vascular dementia, another known risk factor for Alzheimer's disease (Alzheimer's Society, 2025).
- **Avoid or limit alcohol.** Alcohol is toxic to the brain's nerve cells (neurons). Over time, areas of the brain can shrink, compromising memory and cognition. Alzheimer's disease research reports that even moderate drinking (described as two or fewer drinks per day for men, and one or less per day for women), "can affect the brain and may accelerate Alzheimer's disease progression" (Govindugari et al., 2023).
- **Eat a healthy diet.** A Mediterranean-style diet protects both heart and brain by limiting foods that are inflammatory and maximizing intake of anti-inflammatory foods. Similar diets include the DASH (Dietary Approaches to Stop Hypertension) and the MIND diet (Mediterranean-DASH Intervention for Neurodegenerative Delay), a combination of the two approaches. The list of foods to use and to limit or avoid are readily available on an internet search of each diet. Each focuses on optimizing intake of fresh fruits, vegetables, and nuts, extra virgin olive oil as the oil of choice, poultry, fish rich in omega-3 fatty acids (salmon, canned light tuna, mackerel, sardines), and whole grains. Each advises limiting red meat, butter, margarine, cheese, fried foods, pastries and other sweets. These diets also help to prevent or reverse insulin resistance, type 2 diabetes, and high blood pressure, or optimize the management of two conditions, and promote healthy lipid levels. These benefits minimize the risk of metabolic syndrome, caused by the coexistence of high blood sugar, high blood pressure, high cholesterol, excess abdominal weight, and which is another risk factor for Alzheimer's disease (Ezkurdia et al., 2023).
- **Get adequate sleep.** Sleep protects both heart and brain (CDC, 2024; Namsrai et al., 2023). Both organs benefit by the self-repair function of the sleep cycle. A general recommendation is for about seven hours of sleep, with about 20 percent of these hours in combined deep and dream (rapid eye movement-REM) sleep. It is believed that the brain clears toxins during deep sleep, while also consolidating and organizing new memories for later recall. Chronic lack of restorative sleep increases one's risk of developing Alzheimer's disease (Lv et al., 2022).
- **Exercise for at least two and one-half hours per week.** An average of 22 minutes per day of exercise is recommended. Though aerobic exercise that elevates the heart rate for a sustained 20-30 minutes may be most beneficial, any form of regular exercise can help to prevent cognitive decline (Everly et al., 2023). Those challenged for weightbearing exercise can engage in chair-based exercise. Exercise improves blood flow to the brain, optimizing delivery of oxygen and nutrients.
- **Treat hearing loss.** Addressing hearing loss can reduce the risk of cognitive decline, symptoms of dementia, and possibly development or progression of Alzheimer's pathology (Chandra et al., 2024). Recent evidence suggests that up to 32 percent of cases of dementia can be traced to untreated hearing loss (Klamath Audiology, 2025). Indications as to the preventive benefits of addressing visual impairment are less evident, however it follows that addressing any treatable sensory impairment may help to maximize function.
- **Stay socially active.** Socialization supports cognition and may also dovetail with physical benefits,

such as when a social activity involves a sport or physical game (Cohn-Schwartz, 2020; Samtani et al., 2022).

- **Minimize stress and inflammation.** Exploring ways to minimize one's stress response helps to reduce inflammation; inflammation is a known risk factor for cognitive decline and many chronic conditions. While one may not be able to avoid situations that induce stress, each person has the power to decide *how* they will respond to stressful input. Strategies that promote a healthy response to stress include exercise, meditation, quality sleep, etc. (Thomas, 2024).
- **Be a lifelong learner.** Building "cognitive reserve," the ability to retain thinking and problem-solving skills, and the ability to find different ways to accomplish tasks, is accomplished by learning new things, which may include a new language, new skill or art, game, puzzle, or subject matter, etc. (Flexman, 2021).
- **Practice good dental hygiene and keep up with dental care.** Poor oral hygiene and tooth integrity are viewed as risk factors for cognitive decline. The reverse is also considered, i.e., that symptoms of dementia lead to worsening oral hygiene (Wei et al., 2023). Preventive dental care to minimize the risk of gum disease and maintain healthy teeth is the proactive strategy for supporting brain health and cognition.
- **Exercise your brain.** Intentionally using your non-dominant hand for routine daily tasks can serve as exercise for the brain, facilitating new connections between neurons, "exercising" the nondominant half of the brain, potentially improving coordination and memory (Very Big Brain, 2024).
- **Protect the head from injury.** Traumatic brain injury (TBI) can increase the risk of developing Alzheimer's disease and related dementia-causing disorders. Srinivasan and Brafman (2022) note that TBI doubles the risk for AD. Always wearing seatbelts in vehicles and helmets for biking or skating, using ladders with assistance, and refraining from contact sports to minimize risk of repeated concussions are approaches for minimizing risk of TBI.
- **Meditate.** The randomized control study by Ford and Nagamatsu (2024) identified meditation as a "critical cognitive function that supports mobility, executive functions, and performing activities of daily living." The authors suggest that ongoing trials may evaluate whether there is a lasting protective effect of meditation when adopted as another proactive brain health activity.

Embracing Primary and Secondary Prevention

The strategies listed above constitute "primary prevention," the efforts one takes to maintain health. Secondary prevention refers to the processes by which emerging health issues can be identified as early as possible to secure the best outcomes. These efforts include common screening tools, such as mammograms, colonoscopies, Pap smears, annual bloodwork to screen for diabetes, evaluate thyroid function, etc., as well as the healthcare provider's physical examination and evaluation of vital signs. The annual physical examination can also include testing for levels of micronutrients to identify whether levels of vitamins such as B12 and D3 are within normal range. These are two vitamins for which deficiency has been associated with mild cognitive impairment and possibly risk of developing Alzheimer's disease.

Vitamin deficiencies, over- or underactive thyroid function, and electrolyte imbalances (sodium, potassium, chloride, calcium, magnesium), are potential causes for symptoms of cognitive impairment, but they are treatable. Hormone imbalance in menopause may also emerge as a treatable cause for cognitive symptoms.

The Path Ahead

As this article concludes, new information is generated on a near daily basis. New theories about how specific genes influence the risk for developing Alzheimer's disease and the related disorders are emerging with hope that they may point to new approaches in research. The repurposing of two drugs for breast cancer (letrozole) and another for colon and lung cancer (irinotecan) shows promise for improving memory and reversing the characteristic symptoms of Alzheimer's disease. The University of California San Francisco researchers studying the effects of using these two drugs when given in combination hope the research will soon advance to clinical trials for those newly diagnosed with Alzheimer's disease (Gadye, 2025).

In another example of repurposing already approved medications, those prescribed for diabetes and/or weight loss, the GLP-1s (glucagon-like peptide-1) are being studied for their apparent role in decreasing the risk for developing symptoms of dementia (Fessel, 2024).

The ever-increasing incidence of Alzheimer's disease and related disorders is a call to action for adopting as many preventive strategies as possible and inspiring a consistent proactive approach within our primary care healthcare system.

Case in Point: David's Story



DAVID UHLFELDER IS SEVENTY-FOUR YEARS OF AGE. HE WAS recently diagnosed with early-stage Alzheimer's disease. David not only gave permission to use his name; he insisted on it. He wants to share his story and inspire others to join his fight, *David's Alzheimer's Fight*.

I had known David since the early 1980s but had lost touch in recent years. When he was diagnosed, he learned that I worked for Alzheimer's Community Care, a nonprofit organization based in West Palm Beach, Florida, providing services and resources for patients and their family caregivers.

David called me, asking if I had advice as he reacted to his diagnosis. I asked what he was told by the neurologist who diagnosed his early-stage disease. He said the only advice he was given was to get more exercise. He described how the neurologist asked if he wanted to know if he had Alzheimer's disease prior to giving the diagnosis. At that moment, he described his choice: face it or ignore it. David chose to hear the diagnosis and tackle Alzheimer's head-on.

David believed there was more he could do. He described his commitment to fighting Alzheimer's as based on his three guiding principles:

1. "The only thing we have control in our lives is how we react to life's challenges. That's why I've made the intentional decision to fight Alzheimer's with what I can control. Every day, I choose to take meaningful action—to protect my quality of life

and keep moving forward with purpose."

2. "The only thing that is permanent is change.

Change is inevitable. Resisting it is a losing battle. So instead, I've learned to move with it—riding the highs, navigating the lows, and making the best possible choices along the way."

3. "Treat others the way you'd hope to be treated.

Pause for just a moment before you speak or act—because once it's out there, you can't take it back or tuck it neatly into a box."

I asked David to describe the symptoms that prompted him to seek an evaluation. He described "losing words," losing his train of thought during conversations, forgetting how to do tasks on his computer, and experiencing undue anxiety.

These are symptoms many attribute to "normal aging," and may explain why many people with such symptoms are not diagnosed until the disease has progressed to middle stage, the stage for which modern medicine has little to offer. David was wise to recognize the value in seeking an evaluation and taking the opportunity to intervene during early stage.

For the next 90 minutes or so we reviewed all of the strategies outlined in this article. I suggested that if he was serious about taking immediate action, he had to:

- Completely rid his kitchen of sugar and problematic processed and ultra-processed foods, and adopt the anti-inflammatory approach of the

Mediterranean, MIND, or DASH diets.

- Start exercising at least 20–30 minutes each day.
- Seek a hearing evaluation.
- Ensure that his recent primary care evaluation had included a thyroid panel, vitamin B12 and D3 levels and that any thyroid function issue or vitamin deficiency were addressed.
- Intentionally use his nondominant hand for everyday tasks.

David said that he had already addressed the stress of his work by selling his business. He made immediate changes to his diet, he started walking or biking 30 minutes a day, he scheduled a hearing evaluation (which revealed normal hearing). He confirmed that his primary care exam included tests for the potentially treatable causes of symptoms of dementia (thyroid dysfunction, vitamin deficiencies, etc.), and had ruled out these causes. He described challenging his brain to learn new tasks by using his nondominant hand as much as possible.

I suggested to David that he attend our Annual Education Conference taking place two weeks after this phone call. The Conference featured medical experts speaking on protective strategies and the virtues of early intervention. I believed hearing these experts would validate and reinforce David's efforts.

At the Conference, David was excited to tell me that in less than two weeks, he had already lost five pounds, had fewer struggles finishing sentences, and was not losing his train of thought as much.

Three months following our initial discussion, David reported that he'd lost 18 pounds and was experiencing continuing improvement in his communication skills. Most inspiring for David is the fact that friends and family began noticing the improvements and commenting on how much better he was doing. They described his clearer thinking, increased energy, better memory for names, and ability to stay on track in conversations.

David's dedication to a positive approach to his diagnosis was also evident in his commitment to starting a podcast and establishing a social media platform for *David's Alzheimer's Fight*. His goal is to inspire others to seek a diagnosis as soon as symptoms emerge, and to make lifestyle changes that have the potential to mitigate symptoms and improve cognitive function. David's social media posts have garnered immediate attention, with many expressing their support for his efforts and responding to the information he provides about current Alzheimer's studies and books supporting the healthy lifestyles approaches.

David was not inclined to wait for the cure or for some new, safe therapeutics to be approved. The

currently available treatments for early-stage disease, Kisunla and Leqembi, concerned him due to the risks they convey for bleeding and/or swelling in the brain.

The ongoing struggle to find a cure or a substantive disease-modifying treatment that is safe and effective for all underscores the need for routine cognitive screening, early diagnosis, early intervention, and educating all on the benefits of positive lifestyle strategies.

David's story is part of a growing movement for individuals to take control of their cognitive health, and inspiration for change in how we view and approach healthy aging. •CSA



Dr. Karen Gilbert serves as Vice President of Education and Quality Assurance for Alzheimer's Community Care. Karen earned her Doctor of Nursing Practice degree from Palm Beach Atlantic University, her Master of Science degree from Nova Southeastern University, and her Nursing degree from the State University of New York, Downstate Medical Center.

Karen holds Certification in Alzheimer's disease training from the Florida Department of Elder Affairs, as well as designation as a Certified Dementia Practitioner.

Karen has published several articles on the unique needs of patients with Alzheimer's disease and their caregivers. These include:

- *Standard, Routine Cognitive Screening: An Idea Whose Time Has Come?*
- *Vulnerabilities of Cognitively Impaired Patients in Acute and Post-Acute Care Settings*
- *Delirium: Still Elusive After all These Years*
- *Managing Alzheimer's Disease as a Chronic Illness: Reaching and Honoring the Person Within*
- *The Risks in Underestimating Prediabetes, the Opportunities to Grasp*
- *Head Trauma: Short and Long-Term Effects on Cognition.*
- Karen coauthored the book *Even Alzheimer's Won't Stop Me, and it Shouldn't Stop You!*, published in 2024.

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