14 LIFE-CHANGING TIPS... Proven To Reduce the **RISK OF DEMENTIA**

From Harvard Medical and M.I.T. Trained Neuroscientist Dr. Keith Darrow, Ph.D., CCC-A, CDP





INTRODUCTORY LETTER FROM DR. DARROW

Dementia is one of the most pressing public health challenges of the 21st century, affecting millions of individuals and families globally. As our population ages, the prevalence of dementia is expected to increase fivefold in the next 25 years, presenting significant challenges to healthcare systems, societies, and families. The devastating impact of this disease cannot be overstated, as nearly everyone knows a friend, neighbor, or loved one who has been affected by Alzheimer's or another form of dementia.

<u>Remarkably, nearly 45% of all dementia cases are considered preventable.</u> The latest 2024 Dementia Prevention report from the Lancet Commission identifies 14 modifiable lifestyle factors that can help prevent cognitive decline and dementia. Notably, the medical treatment of hearing loss and tinnitus remains the most crucial of these factors.

"EVERYONE KNOWS A CANCER SURVIVOR, BUT NO ONE KNOWS AN ALZHEIMER'S SURVIVOR."

– Dr. Dale Bredesen, Neurologist

The personal impact of dementia is profound. I lost my grandmother to this relentless disease, and her struggle fueled my determination to combat dementia and its underlying causes. It has been over a decade since the first studies highlighted a strong correlation between hearing loss and dementia. As a Neuroscientist, Clinical Audiologist, and Certified Dementia Practitioner Instructor, I have dedicated my career to understanding and mitigating these risks.

This report delves into the importance of early detection of cognitive changes through cognitive screenings and explores the 14 modifiable factors that can significantly reduce the risk of dementia.

I encourage you to read this report, share it with family and friends, and start making positive changes today to maintain a healthy brain and keep dementia at bay.

Go to **ExcellenceInAudiology.org** to find your local healthcare provider and learn how you can take your next steps towards preventing decline and reducing your risk of dementia.

Yours In Active-Aging,

Dr. Keith Darrow, PhD



Dr. Keith Darrow, Ph.D., CCC-A Harvard Medical and M.I.T. Trained Neuroscientist Certified Dementia Practitioner

Amazon #1 New Release & Best-Selling Author President, Excellence In Audiology Expert in Speech and Hearing Bioscience and Technology Director of Audiology Research at Hearing and Brain Centers Professor at Worcester State University Nationally Recognized Speaker, Trainer, and Researcher Research Associate at Massachusetts Eye and Ear Infirmary His publications and research cited over 1200 times

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Every three seconds, another person develops dementia, a statistic that underscores the urgency of addressing this public health crisis. The diagnosis of dementia is akin to being handed a sentence of fatal brain failure. Families are left to bear the emotional and financial burden of caregiving for loved ones who can no longer care for themselves. The average cost of caring for a person with dementia is estimated at \$73,000 per year, making it one of the most expensive diseases to manage.

Despite the widespread prevalence of dementia, there is a concerning gap in the detection and diagnosis of this condition. While nearly nine out of ten older adults get their blood pressure checked when visiting their primary care doctors, only 16% are asked about problems with memory or thinking. This disparity highlights the need for increased awareness and proactive screening for cognitive decline.





THE ROLE OF COGNITIVE SCREENINGS

Every member of the Excellence In Audiology healthcare network understands that the early detection of cognitive decline is crucial for effective intervention and management of dementia. Cognitive screenings provide a quantifiable means of measuring cognitive function and evaluating dementia risk. The most common screening tool across the Excellence In Audiology healthcare network is Cognivue[™]. This FDA cleared technology is an important and innovative tool for cognitive evaluation. This screening evaluates six cognitive domains: memory, visuospatial, executive function/decision making, naming and language, delayed recall, and processing speed.

Implementing cognitive screenings in hearing healthcare practices across America is essential.

Two critical facts underscore the importance of these screenings:

- 1. Hearing loss, experienced by nearly all older adults, is correlated with an increased risk of dementia by as much as 200-500%, depending on the degree of hearing loss.
- 2. 45% of all cases of dementia are considered preventable with minimal changes to lifestyle.





THE 14 MODIFIABLE FACTORS FOR PREVENTING DEMENTIA

In 2024, the European Dementia Commission published a comprehensive report in the Lancet, outlining 14 modifiable factors that can significantly reduce the risk of dementia. These factors, listed in order of the percentage chance of avoiding dementia if the risk is eliminated, provide a roadmap for dementia prevention:

Hearing Loss

Early medical treatment of hearing loss is the most modifiable lifestyle factor for reducing the risk of dementia. Research indicates that adults with untreated hearing loss have a significantly increased risk of dementia compared to those without hearing loss. However, those using prescriptive hearing technology do not show this increased risk. It is suggested that medical treatment of hearing loss and tinnitus can mitigate cognitive decline by ensuring increased auditory input, thereby reducing the cognitive load and social isolation associated with hearing loss. It is essential to prioritize hearing health and seek early intervention to mitigate these risks. Hearing aids and other assistive devices can greatly improve hearing and, consequently, cognitive function. Regular hearing check-ups and timely interventions are crucial steps in dementia prevention.



2 Reduced LDL Cholesterol

Lowering low-density lipoprotein (LDL) cholesterol through lifestyle changes and medical interventions can help protect cognitive health. This is one of two modifiable factors added to the list in the 2024 report from the Lancet Commission which highlights how reducing cholesterol can significantly reduce the risk of dementia. Given that approximately 50% of adults live with some form of heart disease, it is important to emphasize the importance of early detection and management of cholesterol levels to mitigate the risk of cognitive decline.

Effective strategies include adopting a heart-healthy diet, engaging in regular physical activity, and, when necessary, using medications such as statins to lower cholesterol levels. These measures not only benefit cardiovascular health but also contribute to reducing the incidence of dementia, particularly in middle-aged and older adults.

3 Increased Social Engagement

Social engagement is crucial for maintaining cognitive health. Hearing loss often leads to social isolation, which can accelerate cognitive decline. Treating hearing loss and promoting social interactions can help mitigate this risk and enhance quality of life. Participating in community activities, maintaining relationships with family and friends, and engaging in social hobbies can all contribute to reducing the risk of dementia. Technology, such as video calls and social media, can also help maintain social connections, especially for those with mobility issues.



4 Increased Education

Educational attainment is inversely related to the risk of dementia. Engaging in lifelong learning and staying mentally active can build cognitive reserve, making the brain more resilient to the impacts of aging and disease. Encouraging continued education and intellectual engagement throughout life is a powerful tool in dementia prevention. Activities such as reading, puzzles, learning new skills, and attending educational courses can all contribute to maintaining cognitive health.

5 Managing Depression

Depression is a significant risk factor for cognitive decline in older adults. Addressing mental health and treating depression can improve cognitive function and overall well-being. Hearing health plays a role in reducing depression, as untreated hearing loss can exacerbate feelings of isolation and depression. Mental health services, counseling, and medication, when necessary, can help manage depression and protect cognitive health. Early intervention, cognitive therapy, and continuous support from family, loved ones and medical teams are key in treating depression effectively.

6 Avoiding Traumatic Brain Injury (TBI)

Preventing traumatic brain injuries through safety measures and protective gear can reduce the risk of dementia. Accidents and injuries that result in TBI have long-term impacts on cognitive function, making prevention efforts essential. Wearing helmets, using seatbelts, and making homes



safer to prevent falls are important steps in reducing the incidence of TBI. Education on safety practices and the importance of protecting the head can significantly lower the risk of brain injuries and subsequent cognitive decline.

7 Reducing Air Pollution

Emerging research suggests that air pollution may contribute to cognitive decline through vascular and respiratory mechanisms. Reducing exposure to air pollution and advocating for cleaner environments can help protect brain health. Policies aimed at reducing emissions, increasing green spaces, and promoting clean energy can have a positive impact on cognitive health. Individuals can also take steps to reduce their exposure to air pollution, such as using air purifiers and avoiding outdoor activities on high pollution days.

8 Increasing Physical Activity

Physical activity is vital for brain health. Individuals with hearing loss are often less physically active, contributing to increased dementia risk. Encouraging regular exercise and addressing barriers to physical activity, such as untreated hearing loss, can promote cognitive health. Exercise increases blood flow to the brain, promotes the growth of new brain cells, and enhances overall brain function. Regular physical activity, such as walking, swimming, or yoga, can greatly benefit cognitive health and overall well-being.



9 Managing Diabetes

Diabetes is associated with an increased risk of dementia. Managing blood sugar levels and preventing diabetes through healthy lifestyle choices can significantly reduce this risk. Public health initiatives aimed at diabetes prevention are essential components of dementia prevention strategies. Regular monitoring of blood sugar levels, a balanced diet, regular exercise, and medication adherence are key in managing diabetes and reducing its impact on cognitive health.

10 Stop Smoking

Smoking is a well-known risk factor for numerous health conditions, including dementia. Quitting smoking can significantly reduce the risk of cognitive decline. Public health campaigns and support for smoking cessation are critical components of dementia prevention strategies. Nicotine and other chemicals in cigarettes can damage brain cells and blood vessels, leading to reduced brain function and increased dementia risk. Comprehensive smoking cessation programs and policies are essential for public health.

11 Reduce Hypertension

Cardiovascular health is closely linked to cognitive health. Managing hypertension and other cardiac conditions can improve blood flow to the brain, reducing the risk of dementia. Regular health screenings and hearthealthy lifestyles are critical in dementia prevention. Dietary changes, regular exercise, medication, and reducing stress can help control blood pressure. Maintaining a healthy blood pressure is essential for ensuring adequate blood flow to the brain and preventing cognitive decline.



12 Treat Visual Impairment

The other lifestyle factor added in the most recent 2024 report from the Lancet Commission identifies untreated vision loss as a significant modifiable risk factor for dementia. Addressing vision impairment can reduce the risk of dementia by maintaining proper cognitive stimulation from the senses. Early detection and treatment of vision issues, such as providing corrective lenses or surgical interventions for cataracts, can improve cognitive outcomes in adults. By managing vision health, individuals can decrease the cognitive load associated with processing visual information, thereby potentially delaying, or preventing the onset of dementia.

13 Reducing Obesity

Obesity is an emerging concern in dementia prevention. Maintaining a healthy weight through diet and exercise can lower the risk of cognitive decline. Public health campaigns promoting healthy eating and active lifestyles are vital in addressing this risk factor. Obesity can lead to metabolic and vascular changes that negatively impact brain health. Weight management programs, nutritional education, and physical activity promotion can help individuals achieve and maintain a healthy weight.

14 Reducing Alcohol Intake

Moderation in alcohol consumption is key to reducing the risk of dementia. Consuming less than 21 units of alcohol per week (equivalent to two bottles of wine) can help protect cognitive health. Public awareness and education about responsible drinking are important in dementia prevention. Excessive alcohol consumption can lead to brain damage and cognitive decline. Encouraging moderation and providing support for those struggling with alcohol dependence are essential steps in protecting cognitive health.



PREVENTING Dementia

The Lancet Commission on Dementia Prevention determined that 14 Modifiable Risk Factors may reduce the risk of Dementia by 45%.

Treating Hearing Loss continues to be the #1 Modifiable Factor.

> Potentially Modifiable **45%**

7% Medical Treatment of Hearing Loss & Tinnitus

7% Reduce LDL Cholesterol

5% Increase Social Engagement

- 5% Increase Education

- 3% Manage Depression

3% Traumatic Brain Injury

- 3% Air Pollution

2% Increase Physical Activity

- 2% Managing Diabetes
- 2% Stop Smoking
- 2% Reduce Hypertension

2% Treat Visual Loss 1% Reduce Obesity

1% Less Alcohol



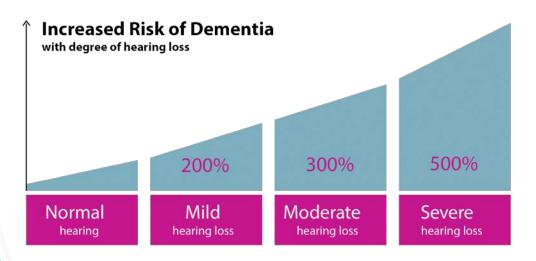


THE IMPACT OF TREATING HEARING LOSS

Treating hearing loss is one of the most effective strategies for reducing dementia risk. The Dementia Prevention, Intervention, and Care Report (2024) highlights the profound impact of hearing health on cognitive function:

- 1. Treating hearing loss is approximately:
 - 7 times more effective at reducing dementia risk than reducing obesity.
 - 3.5 times more effective then managing diabetes.
 - **3.5** times more effective than reducing hypertension.
 - **3.5** times more effective than increasing physical activity.
 - 3.5 times more effective than treating visual impairment
- 2. Treating hearing loss is as effective at reducing dementia risk than if you reduce obesity, diabetes, heart disease and increase physical activity, combined.

These findings emphasize the critical importance of hearing healthcare in dementia prevention. Addressing hearing loss can have a profound impact on cognitive health, reducing the risk of dementia and improving quality of life.



Summary of Data from Lin et al., 2011-2013. Johns Hopkins Medical Center



Dementia is a formidable public health challenge, but proactive measures can significantly reduce the risk. Cognitive screenings and addressing the 14 modifiable factors outlined in this report provide a comprehensive approach to dementia prevention. As we continue to advance our understanding of dementia and its underlying causes, it is imperative to prioritize early detection, intervention, and lifestyle modifications that promote cognitive health.

Every individual has the power to take steps towards reducing their dementia risk. By addressing hearing loss, engaging in lifelong learning, maintaining social connections, and adopting healthy lifestyle choices, we can collectively work towards a future where dementia is no longer an inevitable part of aging. The fight against dementia begins with awareness, education, and action.

Reach out to your local *ExcellenceInAudiology.org* healthcare provider to learn more about your risk and your next steps towards prevention.



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Our mission is to remove the uncertainty for you when it's time to choose a specialist for quality hearing and tinnitus treatment. We provide you with the tools and the education to be able to answer two key questions with full confidence...

- What are the most important questions to ask a potential hearing and tinnitus treatment specialist before starting you or your loved one's treatment?
- How can you be sure that a particular hearing and tinnitus treatment specialist is the best choice to treat you or your loved one's unique case?

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