

Almost 50% of Global Dementia Cases May Be Preventable

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PHILADELPHIA – Nearly half of dementia cases worldwide could theoretically be prevented or delayed by eliminating 14 modifiable risk factors during an individual's lifetime, a report from the Lancet Commission on dementia prevention, intervention, and care.

The report adds two new modifiable risk factors for dementia — high cholesterol and vision loss — to the [12 risk factors](#) identified in the 2020 *Lancet* Commission report, which were linked to about 40% of all dementia cases.

The original *Lancet* Commission report, [published](#) in 2017, identified nine modifiable risk factors that were estimated to be responsible for one third of dementia cases.

"Our new report reveals that there is much more that can and should be done to reduce the risk of dementia. It's never too early or too late to act, with opportunities to make an impact at any stage of life," lead author Gill Livingston, MD, from University College London, UK, said in a statement.

The 57-page report was [published online](#) July 31 in *The Lancet Neurology* to coincide with its presentation at the [Alzheimer's Association International Conference 2024](#).

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'Compelling' New Evidence

The 12 risk factors cited in the 2020 report are lower levels of education, [hearing loss](#), [hypertension](#), smoking, [obesity](#), [depression](#),

physical inactivity, diabetes, excessive alcohol consumption, [traumatic brain injury](#) (TBI), air pollution, and social isolation.

According to the authors of the current report, there is "new compelling evidence" that untreated vision loss and elevated low-density lipoprotein (LDL) cholesterol are also risk factors for dementia.

These two added risk factors are associated with 9% of all dementia cases — with an estimated 7% of cases due to high [LDL cholesterol](#) from about age 40 years, and 2% of cases due to untreated vision loss in later life, the authors said.

Out of all 14 risk factors, those tied to the greatest proportion of dementia in the global population are [hearing impairment](#) and high LDL cholesterol (7% each), along with less education in early life, and social isolation in later life (5% each), the report estimates.

The new report also outlines 13 recommendations aimed at individuals and governments to help guard against dementia. They include preventing and treating hearing loss, vision loss, and depression; being cognitively active throughout life; using head protection in contact sports; reducing vascular risk factors (high cholesterol, diabetes, obesity, hypertension); improving air quality; and providing supportive community environments to increase social contact.

Dr. Tara Spires-Jones, PhD, president of the British Neuroscience Association, emphasized that while this research doesn't directly link specific factors to dementia, it supports evidence that a healthy lifestyle — encompassing education, social activities, exercise, cognitive engagement, and avoiding head injuries and harmful factors for heart and lung health — can enhance brain resilience and prevent dementia.

In an interview with *Medscape Medical News*, Heather M. Snyder, PhD, senior vice president of medical and scientific relations, Alzheimer's Association, said, "Our brains are complex and what happens throughout our lives may increase or decrease our risk for dementia as we age. Protecting brain health as we age requires a comprehensive approach that includes discussions on diet, exercise, heart health, hearing, and vision."

Also weighing in on the new report, Shaheen Lakhan, MD, PhD, neurologist and researcher based in Miami, Florida, said the addition of high cholesterol is "particularly noteworthy as it reinforces the intricate connection between vascular health and brain health — a link we've long suspected but can now target more effectively."

As for vision loss, "it's not just a matter of seeing clearly; it's a matter of thinking clearly. Untreated vision loss can lead to social isolation, reduced physical activity, and cognitive decline," said Lakhan.

Dementia Is Not Inevitable

In his view, "the potential to prevent or delay nearly half of dementia cases by addressing these risk factors is nothing short of revolutionary. It shifts our perspective from viewing dementia as an inevitable part of aging to seeing it as a condition we can actively work to prevent," Lakhan added.

He said the report's emphasis on health equity is also important.

"Dementia risk factors disproportionately affect socioeconomically disadvantaged groups and low- and middle-income countries. Addressing these disparities isn't just a matter of fairness in the fight against dementia, equality in prevention is as important as equality in treatment," Lakhan commented.

While the report offers hope, it also presents a challenge, he said.

Implementing the recommended preventive measures requires a "coordinated effort from individuals, healthcare systems, and policymakers. The potential benefits, both in terms of quality of life and economic savings, make this effort not just worthwhile but imperative. Preventing dementia is not just a medical imperative — it's an economic and humanitarian one," Lakhan said.

Masud Husain, PhD, with University of Oxford, UK, agreed.

The conclusions in this report are "very important for all of us, but particularly for health policy makers and government," he told the Science Media Centre.

"If we did simple things well such as screening for some of the factors identified in this report, with adequate resources to perform this, we have the potential to prevent dementia on a national scale. This would be far more cost effective than developing high-tech treatments, which so far have been disappointing in their impacts on people with established dementia," Husain said.

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