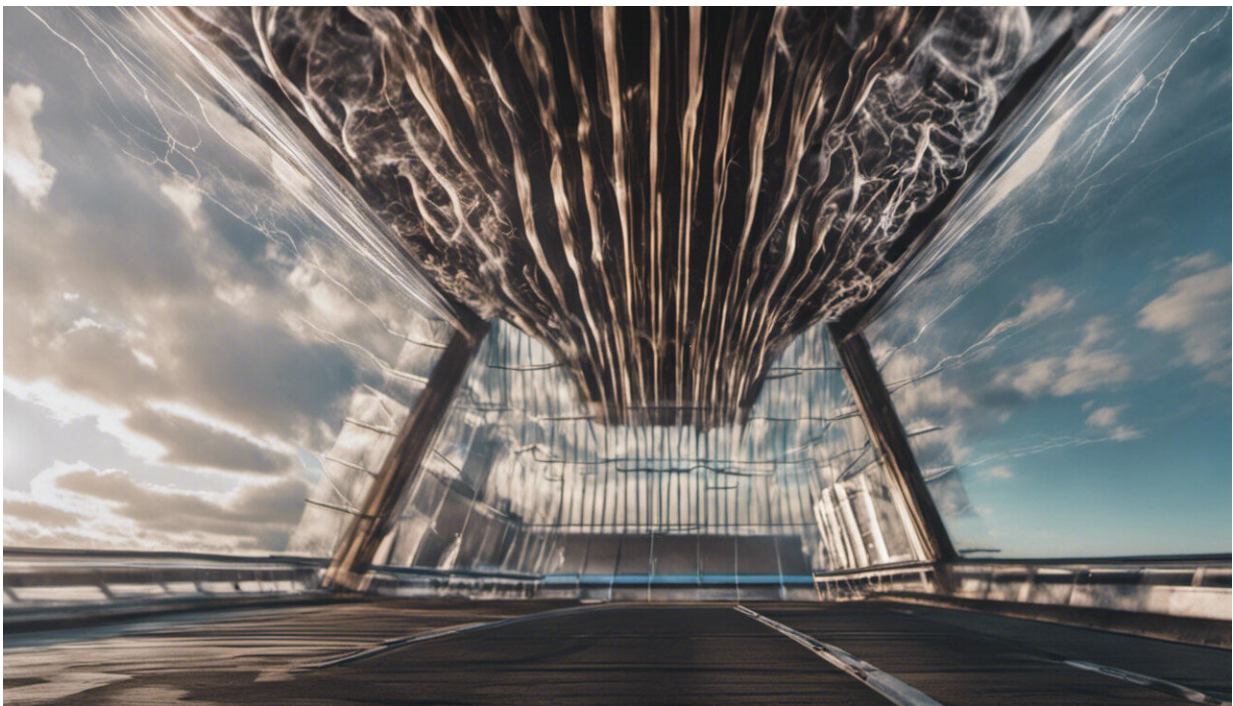


Aging with a healthy brain: How lifestyle changes could help prevent up to 40% of dementia cases

August 23 2023, by Stefanie Tremblay



Credit: AI-generated image ([disclaimer](#))

A 65-year-old woman repeatedly seeks medical help for her failing memory. She is first told it's nothing to worry about, then, a year later, that it's "just normal aging." Until finally, the penny drops: "It's Alzheimer's. There is no cure."

Scenarios like this one are too common.

Dementia remains largely underdetected, even in [high-income countries](#) such as Canada where [rates of undetected cases exceed 60%](#). Beliefs that cognitive deficits are normal in [elderly people](#), and the lack of knowledge of dementia symptoms and of diagnostic criteria among medical doctors have been identified as the [main culprits of missed cases and delayed diagnosis](#).

Age-related memory losses should not be shaken off as just part of normal aging. Occasionally forgetting where we parked the car or where we left our keys can happen to everyone, but when these situations become frequent it's important to seek medical advice.

While many individuals experiencing mild changes in their ability to think and remember information will not go on to develop dementia, in others, these declines constitute an early warning sign. Research has shown [that people with mild changes in cognition](#) are at a greater risk of developing dementia later in life.

In fact, it has been demonstrated that [the disease process \(changes in the brain's structure and metabolism\)](#) starts decades before the appearance of symptoms such as memory loss. Moreover, it is [increasingly recognized in the scientific community](#) that interventions that aim to slow down or [prevent](#) disease development are more likely to be effective when initiated early in the disease course.

Despite this, protocols for early detection [are not standard](#) in the medical community, in part because significant gaps remain in our understanding of dementia.

Dementia and an aging population

In my research, I use advanced brain MRI methods to characterize [brain health](#) in older adults who are at high risk of developing dementia. The goal is to identify new biomarkers of early pathology, which could lead to improved detection methods in the future.

The proportion of senior Canadians is growing in our population. Dementia is strongly associated with aging, so the number of Canadians diagnosed with dementia—including Alzheimer's—is expected to rise considerably in the next few decades, reaching an expected [1.7 million](#) Canadians by 2050. That's more than the [population of Manitoba!](#)

This projected increase will put an enormous pressure on our already strained health-care systems if no significant actions are taken to reverse this trend. This means that effective prevention strategies are now more urgent than ever.

Recent [news about promising new drugs](#) to treat Alzheimer's disease also highlight the need for early detection. [Clinical trials](#) showed that these drugs are most effective at slowing cognitive decline when administered early in the disease course.

Although these new treatment options represent breakthroughs for the Alzheimer's field, more research is needed. These new therapies act on only one disease process (lowering the levels of amyloid, a substance thought to be toxic for neurons), so they may slow cognitive decline in [only a narrow subset of patients](#). A proper characterization of other processes, on a personalized basis, is required to combine these treatments with other strategies.

This is not to mention the significant increase in financial and human resources that will be necessary to deliver these new treatments, which could hinder access to them, especially in low- and middle-income countries, where [dementia cases are rising the most](#).

Lifestyle and brain health

Lifestyle changes, on the other hand, have been shown to decrease the risk of developing dementia with minimal costs and no side-effects. By making dementia risk assessment a part of routine medical visits for [older adults](#), those who are most at risk could be identified and counseled on how to maintain brain health and cognition.

At-risk individuals likely need those interventions the most (potentially a combination of pharmaceutical and lifestyle interventions), but anyone can benefit from adopting healthy lifestyle habits, which are known to protect from diseases not only of the brain, but also of the heart and other organs.

According to an [influential report](#), published in *The Lancet* in 2020, 40% of dementia cases can be attributed to 12 modifiable risk factors. These include high blood pressure, obesity, physical inactivity, diabetes, smoking, excessive alcohol consumption and infrequent social contact.

This means that, by adopting positive lifestyle habits, we could theoretically prevent about 40% of dementias, according to the report. While there is no guarantee of warding off cognitive decline, people can greatly reduce their risk of dementia by increasing their physical activity levels, ensuring they are mentally active and increasing social contact, while avoiding smoking and limiting alcohol consumption.

Some evidence also suggests that a [Mediterranean diet](#), which emphasizes high consumption of plants (especially leafy greens) while reducing saturated fats and meat intake, [is also beneficial for brain health](#).

In short, by encouraging people to be physically, mentally and socially active, a significant number of [dementia](#) cases could potentially be kept

at bay.

Barriers to healthy lifestyles

At the same time, focusing on policy changes could address the societal inequalities that lead to the occurrence of several risk factors, [and higher prevalence of dementia](#), in [ethnic minorities](#) and vulnerable populations. Despite having a universal health-care system, Canada still has health inequalities. People [at greater risk of health conditions](#) include those with lower socioeconomic status, people with disabilities, Indigenous people, racialized people, immigrants, ethnic minorities and LGBTQ2S people.

Policy changes could address these inequalities not only by promoting healthy lifestyles, but also by taking action to improve the [circumstances in which people of these communities live](#). Examples include [improving access to sport centers](#) or prevention clinics for people with lower incomes and designing cities that are conducive to active lifestyles. Governments need to evaluate and address the barriers that prevent people from specific groups from adopting healthy lifestyle habits.

We must be ambitious about prevention. The future of our health-care system and that of our own health depends on it.

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