

Three Dementia Risk Factors Outlined by the Lancet Commission

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We applaud the Lancet Commission's detailed and informative state-of-the-research review to upgrade brain care practices on dementia prevention, interventions and care. Their [enlightening synopsis](#) reveals that 45% of dementia is potentially modifiable if we eliminate the noted risk factors. That is very exciting, science-backed news with actionable public health policy implications.

Our research at UT Dallas' Center for BrainHealth, with our landmark study ([The BrainHealth Project](#)) and the [Adolescent Reasoning Initiative](#), adds and expands the conclusions from the Lancet Commission to not only possibly prevent dementia but more importantly to promote better brain health, starting young. Brain health is the continual promotion of the brain's optimal development through cognition, well-being and connectedness to people and purpose across the lifespan ([World Health Organization](#); [BrainHealth Index](#)).

What has been lacking until now is a validated holistic measure of the upward (and downward) trajectory of brain performance based on an individual's brain gains versus losses. Whereas most measures detect impairment and diagnose brain disease, by design – our team has developed a unique, composite, in-depth BrainHealth Index and evaluated it with thousands of adults ages 18-100 from all walks of life – across 50 states and 60 countries (English only at present). The ability to measure a healthy brain helps us stay “Left of Boom” before concerns of dementia or other brain insults emerge, and it broadens the focus to one of expanding and extending our brain health span. The Commission reached the intriguing conclusion that 45% of risk factors for dementia are modifiable. We too suggest that, starting in early adulthood, ~50% of our brain-use habits are “toxic” to building and maintaining brain health, yet they are also modifiable.

The BrainHealth Project is a longitudinal trial seeking to uncover ways to extend our peak brain years beyond the well-documented, insidious brain decline that starts in our twenties. The question that requires our attention is: How do we build a stronger, longer-lasting brain to match our extended lifespans?

Here are our thoughts related to three of the dementia risk factors outlined in the Lancet Commission's findings:

- **Education (5% Early life):** The documentation that less education contributes 5% to increased risk of dementia is powerful. Lifelong learning extends the benefits of formal education. Learning how to reason through new learnings, versus rote memory of facts, should not end when you leave the classroom. The science of neuroplasticity supports this view, revealing that the brain changes in short time intervals with any new learning across our lives. Research shows that brain performance increases and grows stronger

when individuals cultivate curiosity and explore new ideas, embracing and engaging their capabilities for problem-solving and innovation, whatever their age or starting point.

- **Depression (4% Midlife):** Our BrainHealth team's research reveals that proactive brain health strategies (i.e., giving people tactical thinking tools for self-agency) serves to significantly improve their overall brain health and performance while also decreasing depressive symptoms, in young as well as older adults. Building resilience helps to get ahead of brain decline and stave off or mitigate mental illness symptoms before they reach clinical levels. Young adults – the Next Generation leaders – are at an alarming risk for depression, stress and anxiety in current times; they are not thinking of preventing dementia. Expanding our thinking beyond preventing dementia to one of promoting proactive brain health removes the stigma and generates empowerment.
- **Social isolation (5% Late life):** Our research reveals that connectedness (to people and a sense of purpose) contributes significantly to improving overall brain health, similarly to how improving cognition supports better brain health. Low social connectedness to people and purpose is as major a risk factor to impairing brain performance in early adulthood as it is in late life. Cultivating the strategies and tools to equip individuals with ways to create and grow meaningful relationships at each life stage boosts better brain health.

Brain health includes reducing the risk of dementia and brain injuries, but fortunately it includes far more. The Commission focuses on many of the conditions related to keeping your heart healthy. In contrast, the role of strengthening cognitively-related brain habits is largely ignored. This is a major gap given that our brain changes every day by how we use it. Our work has shown that cognitive strategies not only help people improve their overall brain health and key neural systems but also aid them in taking steps to make healthier life choices. Our findings from The BrainHealth Project show that healthy individuals benefit from brain health strategies whether they are in their 20s, 40s or 70s, regardless of their starting level of brain performance.

Time is of the essence to expand discovery and deliver ways to increase our brain health span to match our extended lifespan. Keeping our brains healthy is the most important issue of this century – our brain is our greatest personal and collective asset and will drive a more vibrant economic and societal future ([Greene, Financial Times](#)).

We propose commissions, major national public policy, and governmental or philanthropic funding efforts to enlarge a global focus on building brain health, adding to the narrower focus on preventing dementia, a disease of the **aging** brain. In this way, brain care practices could dramatically shift toward an approach that impacts every single person at every age, not just those worried about or at risk for dementia. We could make more rapid gains in achieving for brain health what has been achieved for heart health – every person knows how to take steps to make their heart healthier.

Brain health discoveries are already motivating people to take advantage of the tremendous opportunity to promote optimal brain performance, starting at younger ages and never stopping. Every single person must have access to brain-healthy practices starting young.