



CENTER for
BRAINHEALTH®
THE UNIVERSITY OF TEXAS AT DALLAS

WHAT MAKES US UNIQUE?

How We Are Defining, Measuring and Improving Brain Health

Most people don't think about their brains until something goes wrong.

Historically, most measures of brain performance were designed to detect disease or decline.



WHAT

Our approach is unique: we define, measure and teach simple strategies to improve **the brain's upward potential at any life stage.**

The mid-20th century discovery of neuroplasticity revealed that the brain has a lifelong ability to adapt and reorganize its structure and function.

Simply put, our brains change every day depending on how we use them – meaning we have significant self-agency in designing the brain we want.

Given that gradual decline in brain function can begin in our late 20s, Center for BrainHealth is **on a mission to advance the science and the evidence-backed interventions** that will reverse that trajectory and help people thrive.

Our studies show that simple, small steps that take no more than 5-10 minutes a day can build stronger brains, no matter an individual's starting point.

WHY

We are creating for the **brain** what the **heart health revolution** of the past 75 years has done for the heart.

Our goal is to get **"left of boom,"** a military term that means intentionally preparing to avert a crisis. Our strategies, in other words, help get **in front of decline or disease.**

Our research and programs also apply **"right of boom."** We train warfighters with chronic PTSD and TBI, young people struggling with social-emotional and mental health challenges, and patients and caregivers dealing with dementias.

We are **filling a major gap** – in research focus, in scientifically rigorous intervention protocols, and in holistic brain health measurement.

HOW

Two decades ago, we pioneered a set of evidence-based strategies shown to measurably enhance brain performance.

Called **SMART™**, (Strategic Memory Advanced Reasoning Tactics), our core training provides individuals the toolkit to strengthen their brain's frontal network.

The brain's frontal network is the command center of the brain, often called the brain's CEO, because it supports planning, reasoning, decision-making, judgment, and emotional management. Typically, this is the last part of the brain to develop and the first to decline.

Randomized clinical trials funded by National Institutes of Health, Department of Defense, and private philanthropy – with military, neurodiverse, and Alzheimer's populations as well as healthy teens and adults – have shown to strengthen brain performance.

This is our unique contribution to the rapidly expanding awareness and understanding of ways to build stronger, longer lasting brain health and performance.

Over the past five+ years, we have enrolled thousands of people in our longitudinal study **The BrainHealth Project**. A surprising finding has emerged: **when overall brain health improves**, benefits spill over and generalize to gains in mental wellbeing, connectedness and neural systems.

The BrainHealth Project combines our signature cognitive training with other proven strategies and lifestyle habits such as sleep hygiene, stress management, confidence, healthy eating and connection to people and purpose.

Our unique measurement tool, the **BrainHealth Index**, is central to our ability to measure and define all aspects of brain health and performance.

- It's holistic – Other measures look at single-dimension, isolated domains, like memory, mood, and depression.
- It's dynamic – Designed to capture change over time. Thanks to machine learning, it also evolves as we learn.
- It's actionable – Assessments are followed by training and coaching.
- It's strength-based – Relying on strategies, tools and tactics that help you improve year-over-year.

INSIGHTS

Proof points are mounting. Recently extracted data shows that Project participants who repeat their Index seven times over a three-year period improve continuously, regardless of gender, education levels, or age (peer-reviewed publication is pending).

The common denominator is the degree to which participants learn and adopt brain-healthy practices among their daily responsibilities. They learn to use their brains smarter, not harder.

Importantly, improvements tracked in the BrainHealth Index over time have been validated by **visible changes in brain function** as seen on Functional MRI.