

# A Roadmap to Brain Health



The ability to preserve memory plays a pivotal role in healthy brain function later in life. But for some adults, memory loss is a scary reality. In partnership with EIMindA and The Villages Health researchers at the University of South Florida (USF) may have an answer: Brain Network Activation (BNA) technology.

BNA technology uses functional electroencephalogram technology to produce a map showing how well each part of the brain functions. Wearing a cap fitted with electrodes, doctors can test the speed and strength of the patient's responses. Originally developed by EIMindA, this technology has been used to treat and evaluate concussions, but Carla VandeWeerd, Ph.D., USF associate professor, believes it could be applied to evaluate brain health in aging adults.

A Matching Grants Research Program project connects VandeWeerd in collaboration with The Villages Health to conduct a two-year study focused on differentiating unhealthy brain patterns from healthy ones.

The study involves participants engaging in a comprehensive health assessment and receiving a BNA at baseline which is repeated at six and 12 months. This allows researchers to track and identify any changes in their brain function over time.

"The preliminary data looks like it should be

possible for us to identify a reference point for brain health," said VandeWeerd. "And once we identify what a healthy brain looks like in late life, we can differentiate conditions like depression or cognitive disease which could lead to earlier interventions that may be able to slow down the progression of these diseases and improve quality of life."

**To date, more than 700 adults have participated in the study.**

"With The Corridor's support, we've had the opportunity to collect data on questions we do not know the answers to," said VandeWeerd.

Both VandeWeerd and Jeffrey Lowenkron, M.D., chief medical officer for The Villages Health, feel BNA technology has the potential to reshape health care, diagnosis and treatment practices for aging adults.

"Being able to ask ourselves, 'how can we take technology and link it to an actual treatment course' – that to me is the benefit of a relationship with The Corridor," said Lowenkron.