Understanding Blood Flow and Risk for Dementia

LATEST RESEARCH IN WISCONSIN

Brandon Fico, PhD

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The Alzheimer's Association is dedicated to increasing research efforts to improve early detection and find ways to slow and cure this devastating disease. The Alzheimer's Association awarded Brandon Fico, PhD, a $175,000 research fellowship focused on "Arterial Stiffness and Cerebral Hemodynamics Impact on Alzheimer's disease." Fico is a postdoctoral fellow in UW-Madison's Department of Kinesiology.

"The risk of Alzheimer's increases with advancing age," Fico shared. "Over time, we wanted to better understand how vascular changes could impact the risk of Alzheimer's. Our research sample includes healthy individuals with no cognitive impairment, but who are at increased risk of developing Alzheimer's due to family history or presence of certain biomarkers."

The research investigates how age-related changes in the cardiovascular system — such as stiffening of the arteries — impact brain blood flow, and how these changes correlate with biomarkers for Alzheimer's disease. The research also looks at how reductions in brain blood flow, typically seen with advancing age, affect blood vessel health within the brain.

Healthy Lifestyle: Reduces Risk of Cognitive Decline

"One of the best things individuals can do for brain health is to have a healthy lifestyle, including regular exercise," Fico said. "While you can't completely prevent arterial stiffness in your blood vessels, you can limit the amount that develops. Even if you are older, movement is the best thing you can do to support healthy aging."

The Alzheimer's Association is proud to be the home of researchers dedicated to our mission to end Alzheimer's. We salute Fico for his dedication to research focused on better brain health.

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