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HIGHLIGHTS FROM THE ALZHEIMER'S ASSOCIATION INTERNATIONAL CONFERENCE 2020

- AAIC 2020 Highlights New Research Linking Flu, Pneumonia Vaccination & Low Early-Life BMI with Reduced Risk of Alzheimer's and Dementia -
- Advances Toward an Alzheimer's Blood Test -
- COVID-19's Impact on Alzheimer's Research, Long-Term Care and the Brain -

CHICAGO, JULY 30, 2020 — Research presented at the [Alzheimer's Association International Conference](#)[®] (AAIC[®]) 2020 suggests that flu (influenza) and pneumonia vaccination after age 60, as well as lower early-life BMI, among other health factors, are associated with a lower risk of Alzheimer's and other dementias.

“These new findings reported at AAIC 2020 make an even stronger case for the potential of behavioral interventions throughout life to reduce risk of Alzheimer's and other dementias,” said Maria C. Carrillo, Ph.D., Alzheimer's Association chief science officer.

Other new data reported at AAIC 2020 showed:

- Blood tests that measure abnormal versions of the tau protein may — if verified through further research — diagnose Alzheimer's dementia without additional confirmation; that is, not requiring autopsy examination, or both an amyloid and tau positron emission tomography (PET) scan.
- Heart health risk factors — such as high blood pressure, diabetes and being overweight — as early as adolescence can influence late-life memory and cognition, especially in African Americans.
- Higher quality early-life education is associated with better language and memory performance and lower risk of late-life dementia. This association can differ between men and women and between Black and white individuals.

At AAIC 2020, the Alzheimer's Association announced the launch of a [new international research study](#) to globally track and understand the long-term impact of exposure to the novel coronavirus on the brain, including cognition, behavior and function. Scientists from more than 30 countries are eager to participate, and the World Health Organization is providing technical assistance as we move this important collaboration forward. To build a strong foundation for this research, we will align with existing studies — such as the Framingham Heart Study — and clinicians from around the world on how the data is measured and collected. To better understand the impact of the virus on the brain, we will consider cross-study collaborations.

AAIC is the premier annual forum for presentation and discussion of the latest Alzheimer's and dementia research. This year's free, virtual conference event attracted all-time high numbers of both registered attendees (more than 31,000) and scientific presentations (more than 3,000). "The AAIC experience being freely accessible and online further enables the world's dementia scientists to share and discuss the latest findings, and network to build new collaborations that generate the ideas that lead to a world without Alzheimer's and all other dementia," said Carrillo.

Additional Details AAIC Featured Stories:

Flu and Pneumonia Vaccination Tied to Lower Risk of Alzheimer's

New research at AAIC 2020 suggests that flu and pneumonia vaccination are associated with a reduced risk of Alzheimer's. Two studies of older adults found that those who received either a flu or pneumonia vaccination were less likely to develop Alzheimer's. Those who received the flu vaccine more regularly had an even lower risk. For pneumonia vaccination, the largest risk reduction was observed in people who do not carry one of the known genetic risk factors for Alzheimer's — a variant of the TOMM40 gene.

The reports provide some of the first large-scale studies investigating the relationship between vaccination and Alzheimer's risk, highlighting the potential of vaccination as an accessible intervention and supporting further research into the biological mechanisms underlying the observed protective effects of vaccination.

Blood Test for Abnormal Brain Protein May Confirm Alzheimer's Disease Diagnosis

Several studies at AAIC 2020 described advances in blood tests that may more easily and accurately detect Alzheimer's disease with greater certainty, and distinguish it from other degenerative brain disorders. The studies focused on biological markers that detect abnormal versions of the tau protein in blood or plasma, including a specific form of tau known as p-tau217 that seems to be the most specific to Alzheimer's. Abnormal tau forms the "tangles" that are a hallmark brain lesion in Alzheimer's.

These tau brain changes were also found to indicate amyloid plaque accumulation, which forms the other hallmark Alzheimer's brain lesion. In new data reported at AAIC, p-tau217 in blood distinguished persons who had plaques and tangles from those without Alzheimer's brain changes with 89% accuracy, those with plaques and more extensive tangles with 98% accuracy, and the outcome of tau PET imaging with 93% accuracy. If the results are replicated and verified, this could be the first time that a diagnosis of Alzheimer's dementia, with this blood test, would be considered confirmatory — that is, not requiring autopsy examination, or both an amyloid and tau PET scan.

Blood tests may offer a simpler and more accessible approach to improve diagnosis, monitor treatment and identify appropriate people for clinical trials. Families facing Alzheimer's now and in the future would benefit greatly from a simple test that allows early detection. For example, it would allow important care and planning steps to take place early in the disease process.

COVID-19, Alzheimer's Research, Long-Term Care and the Brain

A robust discussion at AAIC 2020 included experts from the Alzheimer's Association, University of Kentucky College of Medicine, Rush University Medical Center and University of Texas Health San Antonio discussing their experiences and viewpoints on evolving, provocative topics related to the impact of COVID-19 and the global pandemic on [Alzheimer's research](#), long-term care and the brain.

The COVID-19 pandemic has further exposed the [health differences that exist between racial and ethnic groups](#) due to economic and social conditions. Many of these disparities are similarly apparent and well documented in Alzheimer's and other dementia. These conditions can isolate people from the resources needed to keep their families healthy and safe.

“The COVID-19 pandemic continues to create unanticipated challenges for people living with Alzheimer's and all dementia, their families and caregivers. Long-term care settings are experiencing these challenges in particular. According to some estimates, more than 59,000 residents and workers have died from the coronavirus at nursing homes and other long-term care communities. The Alzheimer's Association urges state and federal policymakers to implement [policy solutions](#) that address the immediate and long-term issues impacting care facilities during the COVID-19 pandemic,” Carrillo said.

Early-Life Health Factors May Influence Alzheimer's and Dementia Risk

Three studies presented at AAIC 2020 identified several early-life factors that may influence late-life Alzheimer's risk, including cardiovascular health, BMI and quality of education.

- One study of more than 700 African Americans showed that high blood pressure and diabetes, or a combination of multiple heart health-related factors, are common in adolescence and are associated with worse late-life cognition.
- A second study of more than 5,100 older adults suggests that higher body mass index in early adulthood (age 20-49) is associated with higher late-life dementia risk. For women, dementia risk was 1.8 times higher among those who were overweight in early adulthood, and 2.5 times higher among those who were obese.
- A third study found that, in a diverse group of more than 2,400 people followed up to 21 years, higher quality early-life education was associated with better language and memory performance, and lower risk of late-life dementia.

About the Alzheimer's Association International Conference (AAIC)

The Alzheimer's Association International Conference (AAIC) is the world's largest gathering of researchers from around the world focused on Alzheimer's and other dementias. As a part of the Alzheimer's Association's research program, AAIC serves as a catalyst for generating new knowledge about dementia and fostering a vital, collegial research community.

About the Alzheimer's Association

The Alzheimer's Association is a worldwide voluntary health organization dedicated to Alzheimer's care, support and research. Our mission is to lead the way to end Alzheimer's and all other dementia — by accelerating global research, driving risk reduction and early detection, and maximizing quality care and support. Visit alz.org or call 800.272.3900.

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