

Advancing the Science: Alzheimer's and Dementia Research

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Our Work is About People and Science



The Alzheimer's Association is a global organization working to advance care, support and research across the world

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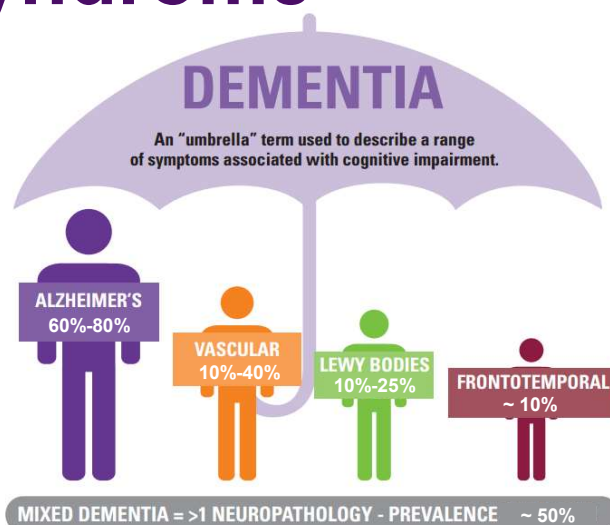
Our Time Today...

- Landscape of Alzheimer's and Dementia Science
- Highlights in Early Detection and Diagnosis
- Latest Advances in Clinical Trials, Treatments and Lifestyle Interventions
- How You Can Get Involved

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Dementia is a Syndrome

- Dementia is a collection of symptoms related to cognitive decline
- Can include cognitive, behavioral and psychological symptoms
- Due to biological changes in the brain
- Alzheimer's is most common cause
- Mixed dementia is very prevalent
- Some causes of cognitive decline are reversible and not truly dementia



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Continuum of Cognitive Impairment

Impairment does not interfere with activities of daily living

Impairment in two or more cognitive functions that interfere with activities of daily living



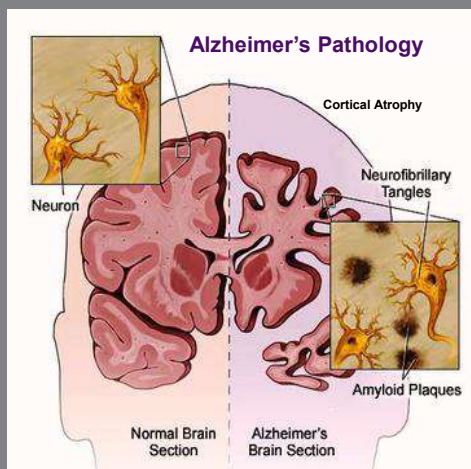
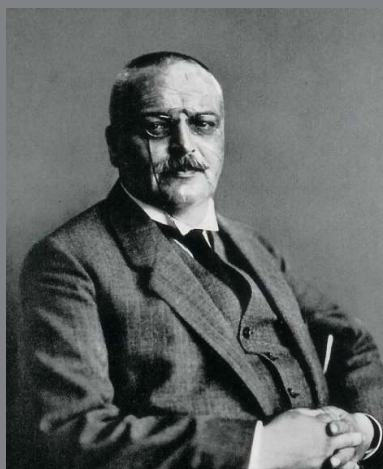
MCI is a known risk factor for dementia

Everyone who experiences dementia passes through MCI

When you prevent new cases of MCI, you are preventing new cases of dementia

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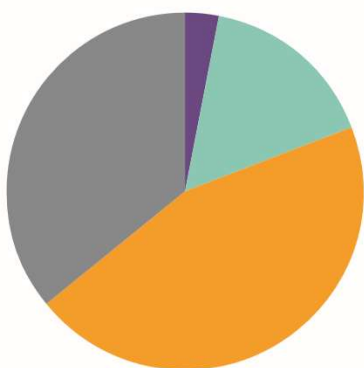
Hallmarks of Alzheimer's Disease



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Risk Factors

Ages of People with Alzheimer's Dementia, 2019



Created from data from Hebert et al.^{A2,51}

Alzheimer's is not typical aging

- Age
- APOE-e4 gene
- Family history
- Cardiovascular disease
- Social & cognitive stimulation
- Education
- Traumatic brain injury

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FDA Approved Therapies

Cholinesterase Inhibitors

- donepezil (Aricept)
- rivastigmine (Exelon)
- galantamine (Razadyne)

Approved For

All Stages
Mild - Moderate
Mild - Moderate

Glutamate Moderators

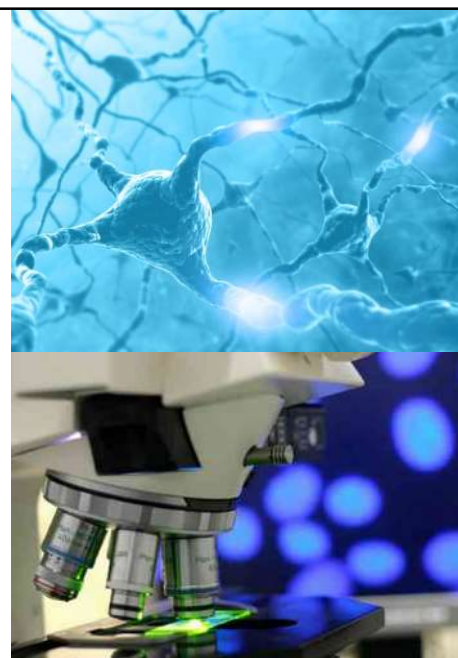
- memantine (Namenda)

Moderate - Severe

Combination

- donepezil + memantine (Namzaric)

Moderate - Severe



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Impact of Alzheimer's

M IN 2019, Alzheimer's and other dementias will cost the nation **16 \$290 BILLION** are
A BY 2050, these costs could rise as high as **\$1.1 TRILLION**



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We Advocate

Alzheimer's and Related
Dementia Research Funding at
the NIH



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Connector • Convener • Funder • Catalyst

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Research Roundtable

GAAIN
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AAIC>19

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Business Consortium

iDEAS
Imaging Dementia—Evidence
For Amyloid Scanning

U.S. POINTER
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NIH National Institutes of Health
Turning Discovery Into Health
AMP-AD

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trialmatch™

International Research
GRANT PROGRAM
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ISTAART
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Global Biomarker
Standardization Consortium

IADRP
International Alzheimer's and Related
Dementias Research Portfolio

WW-ADNI
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THE JOURNAL OF THE ALZHEIMER'S ASSOCIATION

WORLD WIDE
FINGERS

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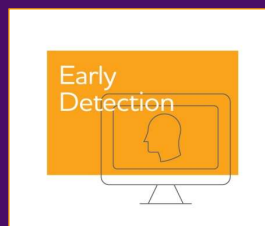
Alzheimer's Association
Global Research Investment

\$165 million

500+ projects

27 countries

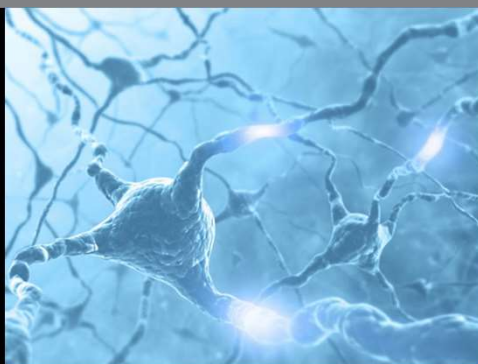
Moving the Needle on Research



Our Research Priority Areas
Inform the Structure of our Grant Program and
Global Collaborative Partnerships

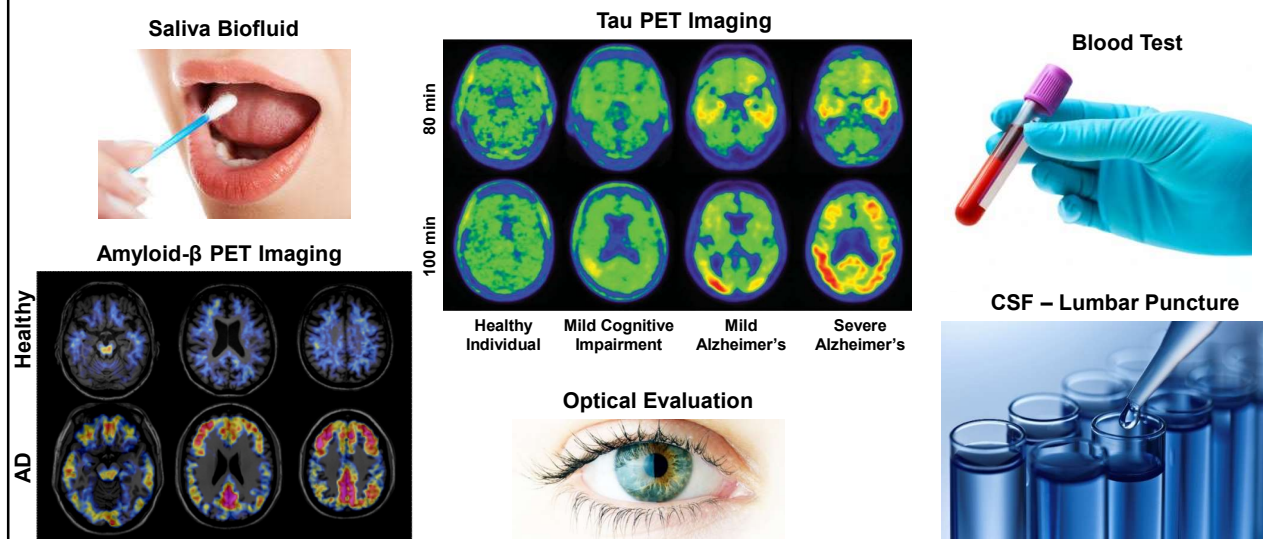
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Exciting Time in Research



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Biomarkers Are Changing the Game

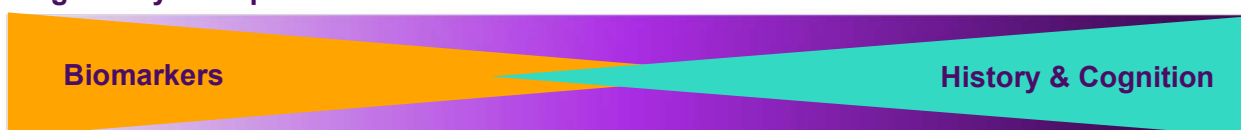


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Modernizing the Diagnosis

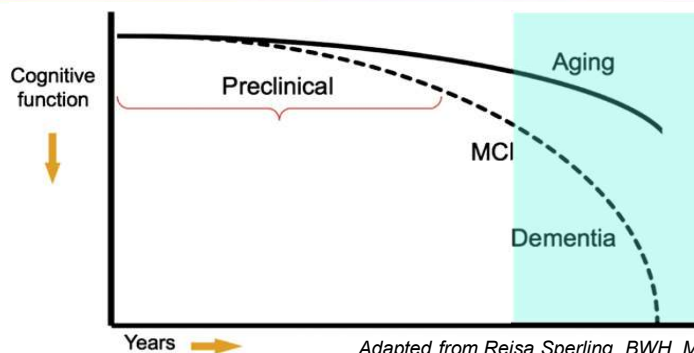
Cognitively Unimpaired

Alzheimer's Dementia



20

years or more before symptoms appear, the brain changes of Alzheimer's may begin.



Adapted from Reisa Sperling, BWH, MGH

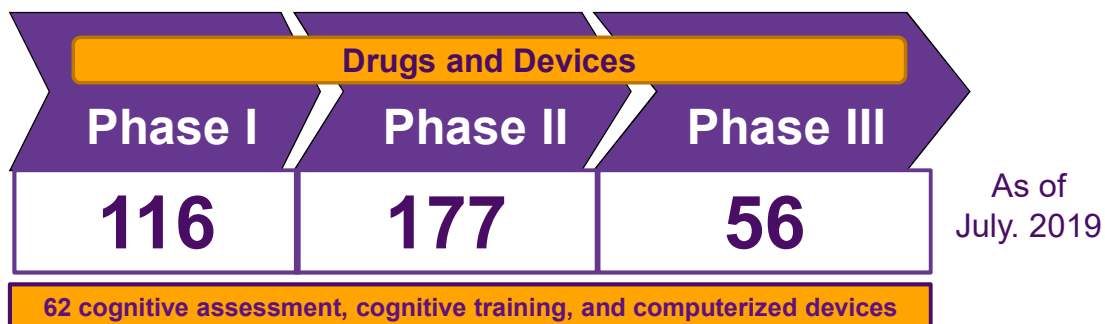
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Progress Toward More Effective Treatment

A future Alzheimer's therapy will likely include both lifestyle interventions and medicines

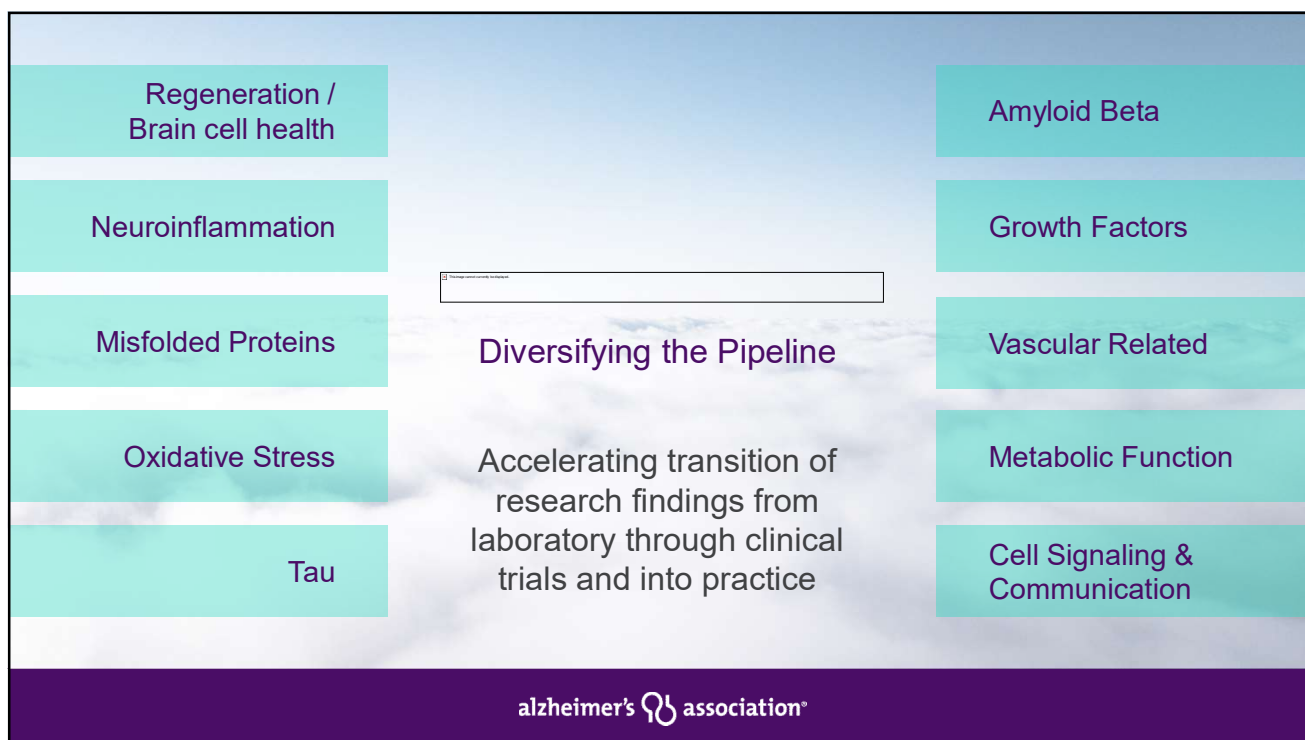
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Current Landscape of Clinical Trials for Alzheimer's & Dementia



Always a Need for Participants

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Medicines Focused on Behavioral & Psychological Symptoms of Dementia

- A major quality of life problem for people living with dementia and their caregivers
- Ongoing clinical trials focusing on therapies for:
 - **Agitation**
 - **Sleep disturbances**
 - **Psychosis**
 - **Apathy**

In The News...SPRINT-MIND Study



CNN Health • Food • Fitness • Wellness • Parenting • Live Longer Live TV U.S. Edition

Lowering blood pressure could cut risk factor for dementia

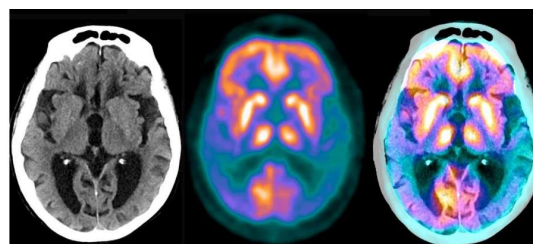
CBS EVENING NEWS WITH JEFF GLOR

thejapan times

The New York Times

Study Offers Hint of Hope for Staving Off Dementia in Some People

People who received intensive treatment for hypertension were less likely to develop minor cognitive problems than those receiving standard treatment.

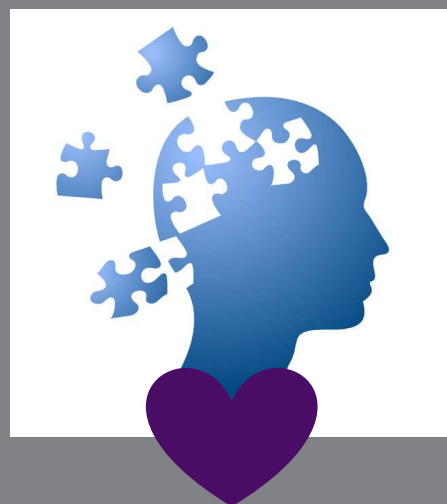


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Why Is This Important?

There are things you can do to reduce your risk of MCI and dementia – especially regarding cardiovascular disease risk factors

Immediate opportunity with life changing impact potential



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U.S. Study to Protect Brain Health through Lifestyle Intervention to Reduce Risk

**Two year multi-center
randomized clinical trial**

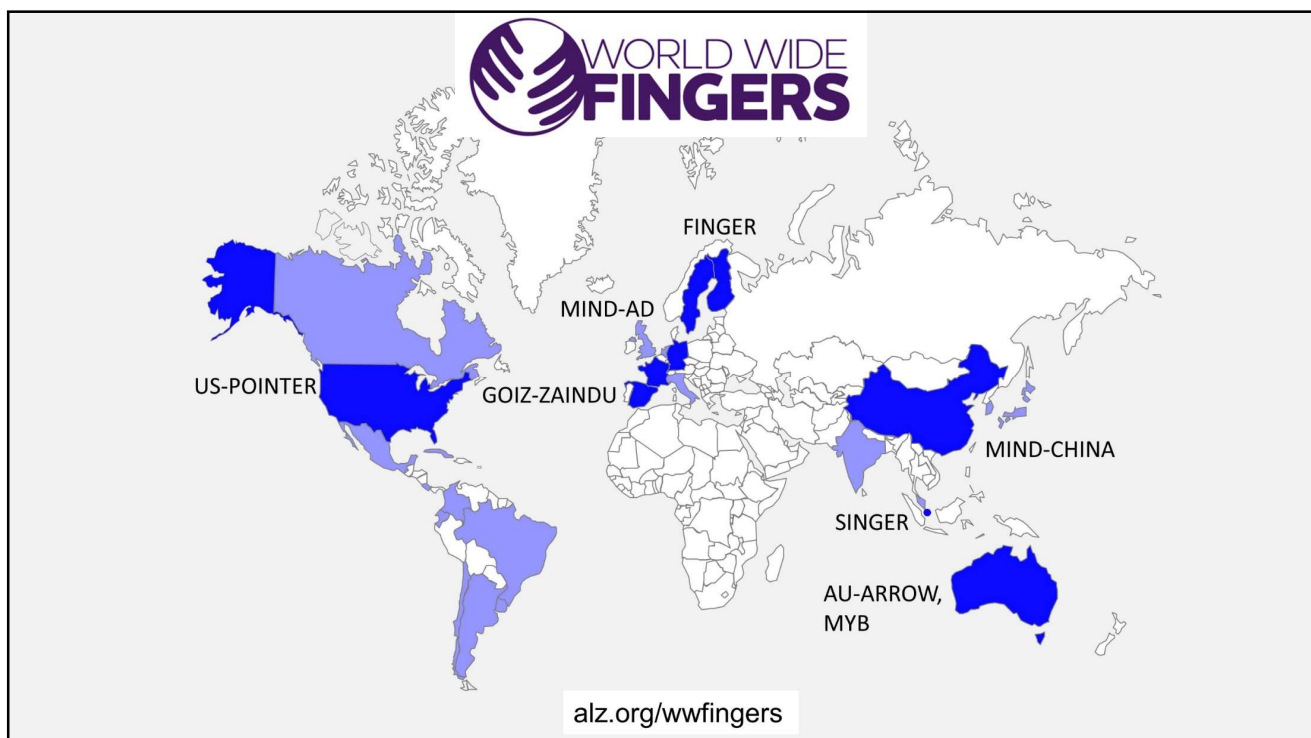
***Self-Guided* and *Structured*
Lifestyle Groups**

**2,000 Participants at
five U.S. sites**

U.S.POINTER
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Changing the Trajectory of Alzheimer's Disease

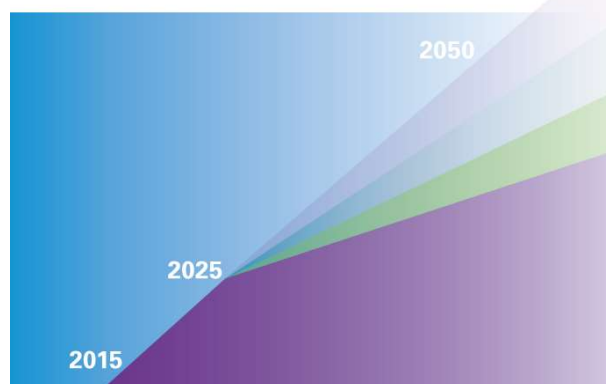
DELAYED ONSET

If we develop a treatment by 2025 that delays the onset of Alzheimer's by just 5 years, then:

5.7

MILLION

people expected to develop Alzheimer's would not in 2050.



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10 Ways to Love Your Brain



START NOW

It's never too late or too early to incorporate healthy habits.



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How to Get Involved in Research

trialmatch[®]

Over 350,000 Users

300+ Clinical Studies at 500+ Locations

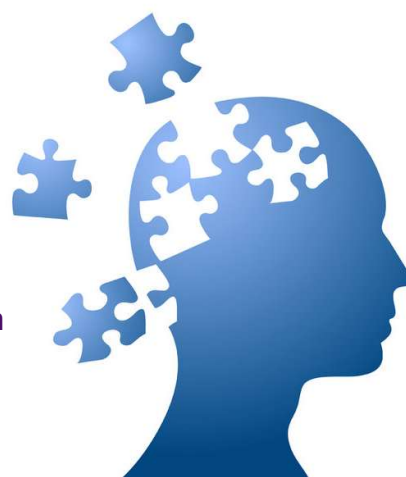
alz.org/trialmatch

TrialMatch is a free **clinical studies matching service** designed to provide a **customized list** of potential study matches to each user.

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In Summary ...


- **Alzheimer's Association is a global leader for Alzheimer's and dementia science**
- **Exciting time in research**
 - New tools for detection and diagnosis
 - Growing diversity of therapies under investigation
- **New research leading to future of therapy that combines drugs and modifiable risk factor interventions**
- **There is HOPE in research !!**




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**A WORLD
WITHOUT
OUR VISION
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