

ADNI Exclusive

A SPECIAL NEWSLETTER FOR PARTICIPANTS IN THE ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE

SUMMER 2008

Dear Friends and Supporters of ADNI

As the summer season continues to heat up, there will be little vacation for the tireless ADNI scientists and your fellow study participants and families who commit their time and energy in pursuit of answers to the mystery of Alzheimer's — a devastating disease that impacts as many as 5.2 million of us in the United States.

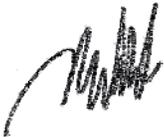
Your efforts have already led to exciting research advancements and with your continued participation and support we can only hope to keep untangling the mysteries of AD.

So, fire up your grill for a barbeque and follow our recipe for charting a promising health future:

- 2 cups determination
- 2 cups commitment
- 2 cups hope

Your participation is making a difference, and is helping us continue to make strides to a world without Alzheimer's.

Thank you and happy summer!



Michael Weiner, M.D.
Fellow Participant and ADNI Principal Investigator
University of California, San Francisco



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ADNI Enrollment Update: Success Abounds!

We are now in our second full year of ADNI. Enrollment began in September 2005 and closed in August 2007 with a total of 822 participants – 478 men and 344 women!

Breakdown of participants:

- No memory problems.....229
- Mild cognitive impairment.....405
- Alzheimer's disease.....188

Total: 822

New and exciting information is opening the door to the potential of promising discovery in the world of AD. For example, almost 100 scientific papers concerning ADNI data were presented at the International Conference on Alzheimer's disease (ICAD) in July 2008. Additionally, ADNI methods are now being used by pharmaceutical companies in their clinical trials of new drugs and results from the ADNI trial are also being used by academic labs and industry to design future treatment trials.

Your continued participation and support is serving as a catalyst for ADNI in achieving our goal of providing new methods and data to facilitate the testing of new treatments for Alzheimer's.



NIH News: National Institutes of Health

Study Finds Improved Cognitive Health among Older Americans

Rates of cognitive impairment among older Americans are on the decline, according to a new study supported by the National Institutes of Health (NIH), the nation's medical research agency, comparing the cognitive health of older people in 1993 and 2002. Higher levels of education were associated with better cognitive health.

Researchers said the findings will need to be explored further to see if they can be observed in other studies and to pinpoint factors influencing cognition, or the ability to think, learn, and remember. The data come from the NIA-supported Health and Retirement Study (HRS), a national, longitudinal examination of health, retirement and economic conditions of more than 20,000 men and women over 50. Researchers tested memory and judgment of a large subset of HRS participants to determine cognitive status in two groups of people, those age 70 and older in 1993 and in 2002.

According to calculations of the study experts and coauthors, cognitive impairment dropped from 12.2 percent in 1993 to 8.7 percent in 2002 among people 70 and older. The researchers suspect that improved treatment for stroke, heart disease, and vascular conditions from 1993 to 2002 might have been factors in the improvement. Further, they suggested, the results support the notion of cognitive reserve, which hypothesizes that the brains of more educated people may be better able to sustain greater damage from Alzheimer's disease or other pathology before clinical signs of impairment appear.

The report appeared in the Feb. 20, 2008, issue of Alzheimer's & Dementia (now online).

(Condensed from NIH News press release)

Brain Teasers: Give Your Brain a Workout

Just like exercise is good for your body, brain teasers or puzzles can be a good workout for your brain. Try these brain games below. Guess the meaning of the word pictures (answers below).

If word puzzles aren't for you, consider finding another mentally stimulating activity to keep your brain sharp!

- | | |
|-------------------------------|--|
| 1. MEREPEAT | 12. 13579 AZ |
| 2. faredce | 13. B B
A A
R R |
| 3. cotaxme | 14. knee
light light |
| 4. no ways it ways | 15. Beating
Beating Bush Beating
Beating |
| 5. r
y
s | 16. 1234
us |
| 6. u
p
s
i
d
e | 17. Math The |
| 7. eeeeeeeeeec | 18. LANG4UAGE |
| 8. Left out Field | 19. getting
it all |
| 9. AALLLL | 20. go it it it it |
| 10. i4i | |
| 11. poFISHnd | |

- | | |
|-----------------------------|------------------------------|
| 1. Repeat after me | 10. An eye for an eye |
| 2. Red in the face | 9. All in all |
| 3. Income tax | 8. Out in left field |
| 4. No two ways about it | 7. Tennessee |
| 5. Syrup | 6. Upside down |
| 6. Beating around the bush | 5. Syrup |
| 7. The aftermath | 4. No two ways about it |
| 8. Foreign language | 3. Income tax |
| 9. Getting away from it all | 2. Red in the face |
| 10. Go for it | 1. Big fish in a little pond |

(Source: Bill's Games – <http://www.billsgames.com/brain-teasers/>)

Q & A with Paul Aisen, M.D. Director of the Alzheimer's Disease Cooperative Study (ADCS)

Dr. Paul Aisen is the Director of the ADCS, a cooperative agreement between the National Institute of Aging and the University of California San Diego developed in response to a perceived need to advance research in the development of drugs that might be useful for treating patients with Alzheimer's disease. He has dedicated much of his career to research focused on new treatment strategies for Alzheimer's disease and other neurodegenerative diseases. In the laboratory, he uses cell culture and animal models to test potential therapeutic agents. On the clinical side he collaborates with pharmaceutical companies on drug development, and designing and directing multi-center randomized controlled trials to evaluate the safety and efficacy of new treatments.

As a leading researcher in this field, Dr. Aisen has fielded dozens of questions from patients, their families and caregivers and responded to three most frequently asked questions below.

Q: I have Alzheimer's disease. Does that mean my children and grandchildren will get it too?

A: In general, the answer is no. There are rare families in which Alzheimer's disease is inherited; in such families, the disease usually begins at a young age (30s, 40s or 50s), and half of the children of a parent with the disease will inherit it. But the vast majority of individuals with Alzheimer's have what is referred to as "sporadic" disease. In such cases, the children and grandchildren have some increased risk (compared to those with no family history of the disease) of ultimately developing Alzheimer's disease, but no predictable inheritance pattern. In other words, in sporadic Alzheimer's disease there is some component of genetic risk, but also other poorly defined environmental/life-style factors influencing risk. Families affected by Alzheimer's disease should also remember that the research community is making steady progress toward effective preventive therapies.

Q: Can Alzheimer's disease be prevented?

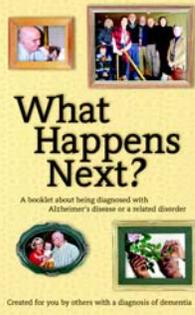
A: At this time, Alzheimer's disease cannot be prevented. There is some evidence (that is not conclusive) that certain lifestyle factors can reduce risk; these include good general health habits, and maintaining a high level of cognitive, social and physical activity. But there has been major progress in understanding the molecular causes of Alzheimer's disease, and many scientists are optimistic that preventive treatments will be developed.

Q: Does having a stroke worsen Alzheimer's or its symptoms?

A: When a person has a stroke, a portion of the brain is damaged by interrupted blood flow. The symptoms of the stroke (such as weakness or loss of sensation) depend on the brain region affected. If a stroke involves an area of the brain important to memory and thinking, then these aspects of brain function may be impaired. If the individual had Alzheimer's disease, the cognitive symptoms may worsen.

Free Alzheimer's Resources

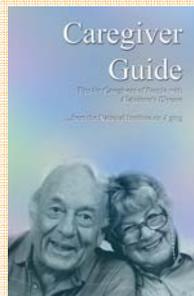
Charged with leading the federal effort on aging research, the National Institute on Aging offers a number of free publications through the Alzheimer's Disease Education and Referral Center (ADEAR). These materials can be ordered online through the Web site at www.nia.nih.gov/Alzheimers/.



What Happens Next

The most recent publication entitled, "What Happens Next" was developed by the early-stage support group at the Northwestern University Alzheimer's Disease Center in Chicago and provides firsthand views about a diagnosis, what to expect, how to talk with others about the disease, and more. You'll also find a list of helpful organizations that offer written materials about dementia, information about support groups and services, and

ways to get involved in research that may help others in the future.



Caregiver Guide

Caring for a person with Alzheimer's disease at home is a difficult task and can become overwhelming at times. The "Caregiver Guide" includes tips to help caregivers deal with new challenges of daily life as they cope with changing levels of ability and new patterns of behavior. Research has shown that caregivers themselves often are at increased risk for depression and illness, especially if they

do not receive adequate support from family, friends, and the community. Many caregivers have found it helpful to use strategies for dealing with difficult behaviors and stressful situations. This resource is also available in Spanish.



Forgetfulness: It's Not Always What You Think

Many older people worry about becoming more forgetful. They think forgetfulness is the first sign of Alzheimer's disease. In the past, memory loss and confusion were considered a normal part of aging. However, scientists now know that most people remain both alert and

able as they age, although it may take them longer to remember things. A lot of people experience memory lapses. Some memory problems are serious, and others are not. People who have serious changes in their memory, personality, and behavior may suffer from a form of brain disease called dementia. Dementia seriously affects a person's ability to carry out daily activities. AD is one of many types of dementia.

From Capitol Hill to Hollywood — Alzheimer's Affects Us All

Retired Justice O'Connor urges Congress to increase help for Alzheimer's

Retired Justice Sandra Day O'Connor knows the daily balancing act that Alzheimer's caregivers face: When her husband could no longer stay home alone, she had to take him to work with her at the Supreme Court.

Now O'Connor is taking her family's struggle with Alzheimer's public as she calls on Congress on Wednesday to spur efforts to fight the nation's coming dementia epidemic. "I cannot overemphasize the need for urgency," O'Connor said in testimony prepared for the Senate Special Committee on Aging. "We must resolve, by our swift action, that the current generation of people with Alzheimer's will be the last generation that we lose to this miserable disease."

More than 5 million Americans are living with Alzheimer's disease, O'Connor's husband, John, among them. O'Connor stepped down as the first female Supreme Court justice in 2005 to move her husband to an assisted care center in Phoenix, near two of their children. Intensely private, she has said little until now of the family's experience except that she regretted having to leave the high court so soon.

Alzheimer's is poised to skyrocket, with 16 million people forecast to have the mind-destroying illness by 2050. Today's treatments only temporarily alleviate symptoms. Already, the Alzheimer's Association estimates that 10 million people share the overwhelming task of caring for a relative or friend with it. "I suspect that you will not hear from many of my fellow caregivers directly... simply because they do not have the resources to take time away from their loved ones in order to come before you," O'Connor said. Against that somber backdrop, a group of scientists, former politicians and well-known names like O'Connor have teamed up to create what they call a "national strategy" to jumpstart efforts to speed research into new Alzheimer's treatments and improve help for caregivers. Public funding for Alzheimer's has been stagnant for five years, O'Connor noted.

(Condensed from AP Online 5/14/2008)

Two Dozen New Celebrities Join the Alzheimer's Association Champion Awareness Campaign

Terrell Owens, Penny Marshall, Garry Marshall, Molly Sims, Wayne Brady, Leeza Gibbons, Anthony Anderson, John Glover, Lainie Kazan, Kathy Mattea, Elisabeth Hasselbeck, Bryant Gumbel, Ahmad Rashad, and Emerson Drive have joined celebrities in the Alzheimer's Association campaign to educate the public about Alzheimer's disease.

These well-known personalities have lent their faces and voices to help the Alzheimer's Association challenge 5 million Americans — one for every American living with the

disease — to learn about the disease and become an Alzheimer's Champion. The Alzheimer's Champions have been photographed by well-known celebrity and fashion photographer, Robert Trachtenberg, in purple T-shirts featuring motivational "action" words describing how the public can get involved in the Alzheimer's cause.

"Alzheimer's is the seventh leading cause of death in the United States," said Terrell Owens, Alzheimer's Association Champion spokesman. "Alzheimer's has affected my own family, so I understand first-hand the impact of this disease. I am proud to support the Alzheimer's Association as they educate people on the realities of Alzheimer's disease so we can inspire enough support to stop it."

(Condensed from Alzheimer News 4/21/2008)

WHAT'S GOING ON IN THE WORLD OF ALZHEIMER'S DISEASE RESEARCH?

The Alzheimer's Disease Cooperative Study Update —

The Alzheimer's Disease Cooperative Study (ADCS), a nationwide consortium of study sites funded by the NIA and coordinated by the University of California, San Diego, has several new studies underway helping to provide more answers to the mystery of Alzheimer's disease. Like you, others are participating in trials to make a world without Alzheimer's disease a reality.

Home Based Assessment Study (HBA) — The HBA study is evaluating three methods of performing home-based assessments, recognizing that mobility and health issues may keep some individuals from participating in clinical trials. The HBA study is examining the use of mail, telephone, and computer assessments that can be done by the participant at home. By reducing the number and length of clinic visits, future AD prevention trials may be able to increase participation while reducing costs.

Gammaglobulin Liquid for Alzheimer's Disease (IgIV) — The Gammaglobulin Liquid for Alzheimer's Disease study is a passive immunization trial of intravenous immunoglobulin (IgIV) for reducing brain amyloid. IgIV is a well-known treatment with an established safety record, approved for use for other indications for more than 25 years.

Receptor for Advanced Glycation Endproducts (RI) Inhibitor Trial — Much evidence suggests that Alzheimer's disease (AD) is caused by amyloid plaque deposits and tangles in the brain which lead to cognitive decline, memory loss and behavioral changes. One of many proteins that surround the amyloid plaques in AD, called RAGE for short, binds to amyloid, which may trigger inflammation and damage to nerve cells. By blocking this amyloid-RAGE binding, researchers found that plaque formation was reduced in animal models. An experimental drug was developed as a RAGE inhibitor, a novel pathway for trying to treat AD. It appears to be safe, and is now being tested.

For more information on these and other clinical trials, visit the ADEAR Center's clinical trials database at www.nia.nih.gov/alzheimers/ResearchInformation/ClinicalTrials