



the compassion to care, the leadership to conquer

Contact:

Niles Frantz, Alzheimer's Association, 312-335-5777, niles.frantz@alz.org
Alzheimer's Association media line, 312-335-4078, media@alz.org

**NEW STUDY SAYS HEART HEALTH AND LIFESTYLE ARE ASSOCIATED WITH
MAINTAINING BRAIN HEALTH AS WE AGE**

CHICAGO, February 21, 2006 – Heart health risk factors and lifestyle choices, such as exercise, learning new things and staying socially connected, are associated with maintaining brain health as we age according to a new report from a multi-Institute collaboration of the National Institutes of Health (NIH) published online today in *Alzheimer's & Dementia: The Journal of the Alzheimer's Association*.

“Many of the factors that can put our brain health at risk are things we can modify and control,” said William Thies, PhD, vice president, Medical & Scientific Affairs for the Alzheimer's Association. “This article points to the possibility that healthier living can significantly contribute to reducing the numbers of sick and mentally declining older people, and reduce healthcare costs. To accomplish that, we need more research to show us which specific combinations of lifestyle choices, and also future therapies, will maintain our brain and emotional health.”

Key Findings

The study's salient finding from a public health perspective is the importance of controlling cardiovascular (CV) risk factors for maintaining brain health as we age. These are factors that people can change, and they include reducing blood pressure, reducing weight, reducing cholesterol, treating (or preferably avoiding) diabetes, and not smoking.

“Based on our review of CV risk factors, the link between hypertension and cognitive decline was the most robust across studies,” said committee chair Hugh Hendrie, MB, ChB, DSc, Professor in the Department of Psychiatry at Indiana University School of Medicine.

A related finding is the close correlation between physical activity and brain health. Three separate, large-scale, observational studies examined by the committee found that elders who exercise are less likely to experience cognitive decline. However, they caution that more research is needed before specific recommendations can be made about which types of exercise and how much exercise are beneficial.

The authors pointed out that “if physical activity were to protect against cognitive deterioration in the elderly, it would be of great public health importance because physical activity is relatively inexpensive, has few negative consequences, and is accessible to most elders.” And they said that increasing physical activity “could have a dramatic impact on quality of life and healthcare expenditures at a societal level owing to the large number of elders that could potentially benefit.” The authors suggest that “there would be great benefit in conducting a large clinical trial to determine if physical activity, possibly in combination with intellectual activity, can prevent cognitive decline.”

“We found surprising consistency across the studies,” said committee member Marilyn Albert, PhD, Director of the Division of Cognitive Neuroscience in the Department of Neurology at Johns Hopkins University School of Medicine and Immediate Past Chair of the Alzheimer’s Association Medical & Scientific Advisory Council. “In particular, we found that well known risk factors for heart disease also are risk factors for cognitive decline, and that physical activity may reduce risk for cognitive decline and dementia in older adults.”

The committee also found that:

- Protective factors most consistently reported for cognitive health include higher education level, higher socio-economic status, emotional support, better initial performance on cognitive tests, better lung capacity, more physical exercise, moderate alcohol use, and use of vitamin supplements.
- Psychosocial factors, such as social disengagement and depressed mood, are associated with both poorer cognitive and emotional health in late life.
- Increased mental activity throughout life, such as learning new things, may also benefit brain health.
- Genetic influences on cognitive and emotional health with aging are poorly understood at present.

The article calls on the research community to study brain health maintenance with as much vigor as is now brought to the quest to understand brain disease. While acknowledging that prevention trials, especially in older populations, present enormous logistic and design issues, the authors recommend that “cognitive [and emotional] outcomes could, in a very cost effective way, be added to ongoing trials designed to reduce CV risk factors and disease.”

The committee proposed that there would be great value now in conducting intensive study of each of the potential risk factors identified in the survey.

More About the Research

The article is the report of a committee to the NIH’s Cognitive and Emotional Health Project (CEHP). The CEHP’s goal is to assess the state of research looking at what may determine or influence cognitive and emotional health in older people, and the ways in which cognitive and emotional health may influence each other. Cognitive abilities include learning and memory, abstract thought, language, and the ability to focus and perform simple tasks. Emotional health includes a person’s sense of competence or ability to control and use emotions constructively, and the ability to cope with stress.

Three institutes of the NIH – the National Institute on Aging (NIA), National Institute of Mental Health (NIMH) and National Institute of Neurological Disorders and Stroke (NINDS) – have joined efforts to conduct the initiative.

“Our charge was to analyze the existing scientific literature about factors involved in maintaining cognitive and emotional health in adults as they age,” Hendrie said. “We chose to review 36 very large, ongoing epidemiological studies in North America and Europe.”

The committee concentrated on studies that were either observational or interventional, had a large cohort predominantly with participants age 65 years or over, were longitudinal in design, and incorporated a broad range of demographic, biological and psychosocial risk factors. For emotional outcomes, cross-sectional studies were also included. The committee chose to review only studies with a sample size of greater than 500. Studies had to include either measurement of memory and at least one other cognitive domain or measurement of depressive symptoms and at least one other emotional domain such as sense of control or optimism. This yielded 96 published articles (66 with cognitive outcomes, 30 with emotional outcomes) that met the criteria for further analysis.

About *Alzheimer’s & Dementia*

Alzheimer’s & Dementia: The Journal of the Alzheimer’s Association, published quarterly by Elsevier, presents the latest original, peer-reviewed, basic and clinical research advances in the field, including early detection, prevention and treatment. Coverage extends from healthy brain aging to all forms of dementia, and includes leading-edge material of interest to both the basic scientist and practitioner. *Alzheimer’s & Dementia* focuses on bridging the knowledge gaps across diverse investigations ranging from the bench to the bedside. (<http://www.alzheimersanddementia.org>)

About the Alzheimer’s Association

The Alzheimer’s Association, the world leader in Alzheimer research, care and support, is dedicated to finding prevention methods, treatments and an eventual cure for Alzheimer’s. For more than 25 years, the donor-supported, not-for-profit Alzheimer’s Association has provided reliable information and care consultation, created supportive services for families, increased funding for dementia research, and influenced public policy changes. For more information, visit www.alz.org or call 800-272-3900.

About Elsevier

Elsevier is a world-leading publisher of scientific, technical and medical information products and services. Working in partnership with the global science and health communities, Elsevier publishes more than 2,000 journals and 1,900 new books per year, in addition to offering a suite of innovative electronic products, bibliographic databases, and online reference works. Visit www.elsevier.com.

###

Editor’s Note: More information on CEHP is at <http://trans.nih.gov/CEHP>

EMBARGOED FOR RELEASE UNTIL FEBRUARY 21, 2006, 12:01 am ET