

Lifestyle Is Powerful Tool in Fighting Dementia

BY BRUCE K. DIXON

CHICAGO — A concerted effort to take better care of the brain with a more healthful lifestyle is likely to reduce the future incidence of Alzheimer's disease (AD), and may even slow disease progression in those who already have the disease, according to Dr. Nancy Emerson Lombardo.

Cardiovascular health and glucose metabolism contribute to brain health, and the rise in obesity and other chronic illnesses has a direct impact on brain health, Dr. Lombardo said at a conference sponsored by the Alzheimer's Association. Dr. Lombardo of the Boston University Medical Center has developed a lifestyle program trademarked as "Be Well," based on research into the effects of nutrition on brain health. "Be Well" dovetails with the Alzheimer's Association's "Maintain Your Brain" campaign, as well as the Centers for Disease Control and Prevention's brain health planning effort recently funded by Congress (for more information, visit www.alz.org).

Dr. Lombardo explained that healthy brain tissue is better able to withstand the ravages of age, genetic vulnerabilities, environmental stresses, accidents, toxins, and disease.

Healthy lifestyles "help us enhance and strengthen neurons, dendrites, and other body and brain cells."

In addition, Dr. Lombardo said obesity increases inflammation which, in turn, increases oxidative stress, possibly resulting in diabetes, heart disease, stroke, arthritis, osteoporosis, some cancers, and AD. "What harms the heart also harms the brain. Obesity, high blood pressure, diabetes, and heart problems all increase the risk for dementia.

The future of all our obese young people is really scary," she remarked. If lifestyle can delay the onset of AD by 5 years, the prevalence of the disease would be halved, said Dr. Lombardo, who placed nutritional deficiency and excessive calories at the top of the list of societal factors threatening brain health in the United States.

Dr. Lombardo's Memory Preservation Diet® (see sidebar) reflects a convergence of independent research findings that nutrition can protect against AD, as well as diabetes and vascular diseases, which themselves are thought to elevate risk for AD.

"The first human placebo-controlled randomized clinical trial to be reported using marine-derived omega-3 fatty acids with persons with AD both confirmed the indications of the epidemiological and lab studies but also [suggested] the limitations of a single nutrient" for affecting the course of AD, she said (Arch.Neurol. 2006;63:1402-8).

Memory Preservation Diet ®

- Increase the amount and variety of antioxidants including spices, vegetables, fruits, nuts, and seeds; include green leafy vegetables, berries, whole grains, and eggs in moderation.
 - Ensure adequate B vitamins, especially B12 and niacin. Beware of excess B6 and folate.
 - Increase omega-3 fatty acids by consuming fish; fish, canola, and olive oils; and flax seed. Decrease omega-6 fatty acids found in corn oil.
 - Reduce inflammation. A diet containing a variety of good foods such as antioxidants and healthful fats will reduce inflammation naturally.
- In addition, certain spices such as ginger, rosemary, oregano turmeric, and curry powder, "powerfully reduce brain inflammation," according to Dr. Lombardo.
 - Reduce insulin resistance by cutting back on sugar and sugary soft drinks. Eat complex carbohydrates and whole grains, and lots of anti-oxidants, especially cinnamon and green tea.
 - Lower LDL cholesterol and saturated fats and avoid trans fats. Eating cinnamon helps with this goal as well.

HealthCare Insights, LLC

P.O. Box 2683, Acton, MA 01720

Telephone: 978-621-1926 Fax: 978-263-5085

Email and websites: nemerson@healthcareinsights.net nemerson@bu.edu www.healthcareinsights.net

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In this Swedish trial of 174 AD patients, consumption of a daily intake of 1.7 grams of docosahexaenoic acid (DHA) and 0.6 grams of eicosapentaenoic acid (EPA) significantly slowed disease progression, but only in those patients with very mild dementia (Mini-Mental State Examination [MMSE] scores above 27).

The only AD diet study to date, carried out in Japan, reported that a daily regimen of fish along with additional fruits and vegetables and consumption of fewer sweets slowed progression of AD (*J. Nutr. Health Aging* 2004;8:432).

This controlled clinical trial with 56 subjects compared standard medical care with a daily diet of 80-90 g of fish, two servings of green vegetables, one serving of fruit, 1.3 L of water, and reduced sweets. All participants were on cholinesterase inhibitors. Those in the diet treatment group had stable MMSE scores, sustained over a 30-month period, but scores declined by 6 points in control participants.

When and how we eat are also important, said Dr. Lombardo, stressing that it's important to have breakfast and to eat sitting at a table, preferably with other people.

Other societal factors that adversely affect brain and body health include lack of exercise, increases in stress, insufficient sleep, social disconnections, and environmental toxins, Dr. Lombardo said.

One drawback is found in the fact that professional nutrition plans, such as the one Dr. Lombardo has devised, are not covered by health insurance.

In addition, upgrading the menu can be prohibitively expensive for many facilities, Dr. Lombardo said. "One solution is to have the residents grow their own vegetable and spice gardens, which offers both nutritional and physical benefits."

Among possible sources of funding is the National Family Caregiver Support program, which can be accessed online at www.aoa.gov/prof/aoaprogram/caregiver/caregiver.asp.



Diet study in Japan found that a daily regimen of fish, fruits and vegetables, and fewer sweets may slow AD progression.

In addition, there's virtually no danger in a healthier lifestyle approach to helping the brain heal, said Dr. Lombardo. Regardless of personal risk factors and with or without pharmacologic intervention, a healthful lifestyle can reduce risk, delay onset, and slow the progression of AD and vascular dementia.

This approach works on multiple pathways to improve overall health in multiple organs with minimal or no side effects, even over as many as 3-6 decades, she said.

Dr. Lombardo suggested that individuals "start diet changes one step at a time. Try cinnamon and curry; replace carbs with spices, vegetables, and nuts; replace coffee or soda with tea; drink vegetable juice daily; replace corn oil with olive or canola oil," said Dr. Lombardo, adding that caregivers, too, should "strategize new ways to use their brains and help patients and clients use theirs in new ways every day."

Bruce K. Dixon is with the Chicago bureau of Elsevier Global Medical News.