

# Dimensions

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## Lifestyle Programs May Reduce Alzheimer's Risk

by Nancy B. Emerson Lombardo

Alzheimer's disease currently affects approximately 5 million Americans and their families, crossing cultural, class and racial boundaries. Unless we find ways to prevent and cure this devastating disease, the number of Americans affected will grow to at least 14 million by 2050.

A Peter D. Hart Research Associations poll of a representative sample of U.S. voters found that 32 percent either have or had a family member with Alzheimer's disease, and those respondents are very concerned about getting it themselves. Fifty-seven percent of respondents of all ages, with or without Alzheimer's in their own family, are worried about getting the disease. Seventy-four percent say that they are concerned about a family member or close friend getting Alzheimer's. The poll results were released April 30, 2002, by the Alzheimer's Association.

What is most frightening about Alzheimer's is that the disease process is now known to start as early as 20 years before symptoms appear. This gives us several decades to intervene, but, unfortunately, no magic cure exists. Headlines occasionally trumpet a possible vaccine or pharmaceutical treatment for Alzheimer's, but thus far these have been shown at best to have limited effect and duration, and at worst to have serious side effects. More and more researchers are concluding that Alzheimer's is a very complex disease with many environmental and genetic factors.

As evidence mounts, for example, that the risk factors for heart disease are also risk factors for Alzheimer's disease, the paradigm is rapidly shifting toward seeing Alzheimer's as the most common chronic disease of the brain. The holistic view of health—that the well-being of one physical or emotional system affects another—also becomes more relevant.

Scientific evidence suggests that Alzheimer's results not only from determined genetic and unavoidable environmental factors, but also from controllable lifestyle factors. The risk profile for Alzheimer's has multiple lifestyle features that parallel, at least in part, those for heart disease, stroke, diabetes and some cancers. Epidemiological studies demonstrate that the following factors increase one's risk for Alzheimer's disease: stroke, vascular disease, lower cerebral perfusion and higher levels of stress hormones.

Potential protective factors include physical exercise; certain nutrients (including antioxidants, Vitamin B, folic acid, Vitamin E and omega-3 fatty acids); specific foods (such as blueberries, nuts, olive oil and soy); certain herbs (such as ginkgo biloba); mental stimulation; social activities and support; and stress management. We believe that multifactorial interventions focusing on mind-body wellness could dramatically reduce risk for Alzheimer's and also slow down its progression.

Our proposed Brain Enhancement and Wellness program, which I created along with Xiu Wen Zhang and Bei Wu, combines the latest Western research on Alzheimer's with traditional Chinese medicine and clinical program findings to address lifestyle and mind-body concerns. The five components of the program—good nutrition, physical exercise, stress reduction, social activities and support, and cognitive rehabilitation combined with mental stimulation and memory exercises—should enhance participants' cognition and mood through physical and mental changes.

#### **THE FIVE ELEMENTS OF THE PROGRAM**

We chose these five elements for our program due to their positive effects on building vascular brain tissue, improving blood flow to the brain, stimulating new brain connections, increasing antioxidant action, reducing inflammation, and relieving stress and emotional distress. In addition, four of our five elements—good nutrition, physical exercise, stress reduction, and social activities and support—are healthy-heart strategies as well.

To increase the magnitude and breadth of positive results, our proposed intervention strategy integrates multiple research-based approaches. Some researchers have conducted pilot studies using one of the aforementioned five components, but no researcher has yet combined them all into one program. We believe our multifactorial, integrated approach to addressing lifestyle and mind-body issues is key to preventing Alzheimer's disease and related disorders, and slowing their progression. ■■

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