

Dancing USA Editor's Notes

by Michael Fitzmaurice, Dancing USA Jul/Aug 2003

Are you at risk for Alzheimer's disease? Does it run in your family? Are you afraid that it might happen to you or someone you love? For those of you who find yourself in such a precarious position, hope is well within your grasp beyond the power of prayer. A recent study in the New England Journal of Medicine, the country's most prestigious medical publication suggests that ballroom dancing decreases the odds of suffering from dementia by 76%.

Joe Verghese and his colleagues at the Albert Einstein College of Medicine in the Bronx studied people age 75 and older that did not have any sign of forgetfulness at the study's start. The researchers measured cognitive activity levels by asking a pool of 469 people what leisure activities they participated in, and how often.

The researchers asked about a variety of activities, including playing board games or cards, reading, writing for pleasure, playing a musical instrument, doing crossword puzzles, participating in group discussion, dancing, doing housework, walking, swimming, biking, babysitting and participating in group exercise. All of the study participants lived in the Bronx, one of New York City's five boroughs.

Every year, for an average of five years, the study participants were evaluated. Participating in a cognitive-stimulating activity one day a week translated into one point on the cognitive activity level scale. During the study period, 121 study volunteers (26% of the participants) developed dementia.

By comparing those who developed dementia with those who didn't, the researchers found that for one point on the cognitive activity level scale, there was a 7 percent reduction in the risk of dementia. People in the highest third had a score of 11 points or higher. That means they

participated in mind-stimulating activities more than once a day each week. Their risk of developing dementia was 63 percent lower than people who scored in the lowest third of the cognitive activity level scale.

In simple terms, people who played the hardest gained the most: For example, seniors who did crossword puzzles four days a week had a 47% lower risk of dementia than those who did the puzzles once a week. By way of comparison to other activities, reading reduced the risk 35%, playing a musical instrument lowered the risk 69%, and dancing frequently lowered the risk an amazing 76%.

One reason people might have scored low on the cognitive activity level scale, according to Verghese, is that they could have the beginnings of dementia, but not show outward signs of the disease. To control for this possibility, Verghese and his colleagues re-examined the data, excluding anyone who developed dementia in the first seven years of the study, and the results still held true.

"Subjects whose levels were in the top third of the cognitive activity level had almost a 65 percent reduced risk of dementia, says study author Dr. Joe Verghese, an assistant professor of neurology at Albert Einstein College.

This study provides a remarkable contrast to more complex dementia research that focuses on the specific changes that occur in the brain as dementia develops. After looking at that, complexities in some of that research, it's hard to believe that something as simple as playing cards could ward off dementia.

Nevertheless, the results of this study are convincing. Effortful mental activities may forestall the onset of dementia, says Dr. Joseph Coyle, a professor of psychiatry and

neuroscience at Harvard Medical School.

Exactly how it occurs isn't known. But "participating in these activities that use the brain may stimulate neurons to work around the damage associated with the early stages of dementia," he says.

In general, physical activities did not provide a statistically meaningful hedge against Alzheimer's. For example, the researchers found no protection associated with playing golf or tennis. But just a few seniors in the study played golf or tennis so that finding may not hold true, Verghese cautions. Dancing proved to be the only physical activity that did.

"Any mentally challenging activity, like learning a new dance step, might spur the brain to establish new connections or perhaps to grow new brain cells," says Gary Small at the University of California-Los Angeles. The extra brainpower may compensate for any loss of brain cells because of a disease process such as Alzheimer's.

"The 'use it or lose it' theory of successful aging has yet to be proven scientifically," says Bill Thies of the Alzheimer's Association in Chicago. Still this is one time the experts aren't waiting for proof.

Having fun won't hurt and it might ultimately offer a hedge against Alzheimer's, Small says: "Keep your brain active and you may protect yourself against future memory loss."

So for now, both experts say it's a good idea to engage in activities that stimulate your mind throughout your life.

Statistics about Alzheimer's Disease

Alzheimer's disease is a progressive, degenerative disease of the brain, and the most common form of dementia. Some things you should know about Alzheimer's disease:

- *Approximately 4 million Americans have Alzheimer's. In a 1993 national survey, 19 million Americans said they had a family member with the disease, and 37 million said they knew someone with Alzheimer's.*
- *An estimated 14 million Americans will have Alzheimer's disease by the middle of this century (2050) unless a cure or prevention is found.*
- *One in 10 persons over 65 and nearly half of those over 85 have Alzheimer's disease. A small percentage of people as young as their 30's and 40's get the disease.*
- *A person with Alzheimer's will live an average of eight years and as many as 20 years or more from the onset of symptoms.*
- *U.S. society spends at least \$100 billion a year on Alzheimer's disease. Neither Medicare nor most private health insurance covers the long-term care most patients need.*
- *Alzheimer's disease is costing American business \$61 billion a year <\$36.5 billion is the cost to business of care giving (lost productivity from absenteeism of employees who care for family members with Alzheimer's); the rest is the business share of the costs of health and long-term care.*
- *More than 7 of 10 people with Alzheimer's disease live at home. Almost 75% of the home care is provided by family and friends. The remainder is "paid" care costing an average of \$12,500 per year. Families pay almost all of that out-of-pocket.*
- *Half of all nursing home residents suffer from Alzheimer's or a related disorder. The average cost for nursing home care is \$42,000 per year but can exceed \$70,000 per year in some areas of the country.*