



Nutrition for Family Living

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Still another reason to eat those vegetables!

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By Ashley Valentine and Sherry Tanumihardjo

If the list of health benefits due to consuming a healthy diet rich in vegetables as described by the *Dietary Guidelines for Americans 2005* wasn't inspiring enough for you, then here is one more reason eating vegetables is a great idea: eating vegetables may help slow cognitive decline as we get older.



Current research: Researchers from Rush University Medical Center in Chicago recently published evidence indicating high vegetable, but not fruit, consumption may reduce the rate of cognitive decline in individuals 65 years and older by 40%. The study followed 3,718 participants over six years. At baseline, participants' cognitive function was assessed by combining the results of two to four cognitive tests to achieve a global score of cognitive function. Within 2.5 years of the baseline tests, participants completed a food frequency questionnaire (FFQ) to determine fruit and vegetable intake over the past year. On average, FFQs were completed 1.2 years after baseline. At the 3- and 6-year follow-ups, participants' global cognitive function was reassessed.

While the cognitive function of subjects in all five categories of vegetable intake decreased over the six-year period, there was a 40% slower rate of cognitive decline in subjects' in the two highest categories of vegetable consumption compared with the subjects in the first lowest category, after adjusting for multiple variables including education, participation in cognitive activities, physical activity and alcohol consumption. The rate of cognitive decline of subjects in the fourth category of vegetable consumption was slightly slower than subjects in the highest fifth category. The difference between the subjects in the fourth and fifth categories of vegetable consumption was 2/3 cup per day. The highest level of intake was identical to current recommendations by the *Dietary Guidelines*, which is 2 cups of vegetables per day for a 1600 calorie diet. Interestingly, fruit consumption did not have the same effect on cognitive decline.

The group also examined correlations between types of vegetables and delay of cognitive decline. According to the article, green leafy vegetables and zucchini had the greatest ability to slow cognitive decline. Specifically, zucchini, broccoli, and greens such as kale and collards were inversely related to cognitive function.

Implications for educators: As the list of reasons to include vegetables in our diets expands, we can be assured that the *Dietary Guidelines* for Americans give us good advice. For most individuals, the recommended range for vegetable intake is 2 to 3 cups each day for 1600 to 2400 calorie levels. Promoting a variety of vegetables also ensures adequate amounts of essential nutrients.



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References:

Morris, M.C., Evans, D.A., Tangney, C.C., Bienias, J.L., and Wilson R.S. (2006) Associations of vegetable and fruit consumption with age-related cognitive change. *Neurology* 67: 1370 – 1376.

US Department of Health and Human Services. *Dietary guidelines for Americans 2005*. Washington, DC: US Department of Agriculture, 2005.

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