

# High fruit and vegetable intake positively correlated with antioxidant status, cognitive performance

September 9 2009

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Researchers at the Institute of Biochemistry and Molecular Biology I of the Heinrich-Heine University, Düsseldorf, Germany, investigated the relationship between fruit and vegetable intake, plasma antioxidant micronutrient status and cognitive performance in healthy subjects aged 45 to 102 years. Their results, published in the August issue of the *Journal of Alzheimer's Disease*, indicated higher cognitive performance in individuals with high daily intake of fruits and vegetables.

Subjects with a high daily intake (about 400 g) of fruits and vegetables had higher antioxidant levels, lower indicators of free radical-induced damage against lipids as well as better [cognitive performance](#) compared to healthy subjects of any age consuming low amounts (

The work was performed in collaboration with the Department of Pharmacology at Temple University in Philadelphia, Pennsylvania, the Department of Geriatrics at Perugia University, Italy, and the Department of Neurology of the St. Elisabeth Hospital in Cologne, Germany.

Dr. M. Cristina Polidori, currently at the Department of Geriatrics, Marienhospital Herne, Ruhr-University of Bochum, Germany, explains: "It is known that there is a strong association between fruit and vegetable intake and the natural antioxidant defenses of the body against [free radicals](#). It is also known that bad nutritional habits increase the risk of

developing cognitive impairment with and without dementia. With this work we show a multiple link between fruit and vegetable intake, antioxidant defenses and cognitive performance, in the absence of disease and independent of age. Among other lifestyle habits, it is recommended to improve nutrition in general and fruit and vegetable intake in particular at any age, beginning as early as possible. This may increase our chances to remain free of dementia in advanced age."

These findings are independent of age, gender, [body mass index](#), level of education, lipid profile and albumin levels, all factors able to influence cognitive and antioxidant status. The relevance of the findings is also strengthened by the large sample that included 193 healthy subjects.

Further studies are planned that will include larger subject cohorts, patients with [Alzheimer's disease](#) at different stages and patients with mild [cognitive impairment](#) without dementia.

More information: Polidori MC, Pratico D, Mangialasche F, Mariani E, Aust O, Anlasik T, Mang N, Pientka L, Stahl W, Sies H, Nelles G. High fruit and vegetable intake is positively correlated with antioxidant status and cognitive performance in healthy subjects. *J Alzheimers Dis* 17:4 (August 2009).

Source: IOS Press ([news](#) : [web](#))

Citation: High fruit and vegetable intake positively correlated with antioxidant status, cognitive performance (2009, September 9) retrieved 19 April 2024 from <https://medicalxpress.com/news/2009-09-high-fruit-vegetable-intake-positively.html>

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