

Does Vitamin Intake Reduce the Risk for Parkinson Disease?

Authors: MDEdge News Author: Erik Greb; CME Author: Charles P. Vega, MDFaculty and Disclosures

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Synopsis

Although age and family history are important risk factors for Parkinson disease (PD), there is less consistent data regarding potential modifiable risk factors for PD. Palacios and colleagues evaluated whether obesity and diabetes might increase risk for PD, and their results were published in the October 2011 issue of *Movement Disorders*.^[1]

They used a cohort of 147,096 adults being followed in a prospective study to assess their query. In adjusted analyses, neither obesity nor waist circumference were associated with a higher risk for PD. Weight gain during adulthood was also not predictive of incident PD. Finally, the presence of diabetes failed to alter the risk for PD. In general, all of these variables failed to influence the risk for PD among women and men alike.

Antioxidants may have a greater influence on the risk for PD, but the results of research into this area have produced variable results. The current study by Hantikainen and colleagues used a large patient cohort to further explore this area.

Study Synopsis and Perspective

Higher intake of vitamins C and E was associated with a reduced risk for PD in an analysis of a national cohort study. Higher intake of both vitamins, as opposed to one, strengthened the association with lower PD risk.

In addition, body mass index (BMI) and coffee consumption appeared to influence the magnitude of these vitamins' effect on PD risk; however, dietary beta-carotene and dietary nonenzymatic antioxidant capacity (NEAC) had no effect on this risk.

"Our findings suggest that the protective effect of dietary vitamins on [PD] risk might be limited to specific vitamins, such as vitamin E and C," Essi Hantikainen, PhD, a postdoctoral researcher at the University of Milano-Bicocca, Milan, Italy, told *Medscape Medical News*. "Therefore, implementing foods in the diet that are rich in vitamin E and C might help to prevent the development of [PD]."

More research is needed to confirm these findings, she added.

"In addition, it is not yet clear what are the most beneficial amounts of vitamin E and C intake to reduce the risk of [PD]," Hantikainen continued.

The research was published online January 6 in *Neurology*.

References:

1. Hantikainen E, Lagerros YT, Ye W, et al. Dietary antioxidants and the risk of Parkinson disease: The Swedish National March Cohort. *Neurology*. 2021. doi: 10.1212/WNL.00000000000011373 [Epub ahead of print] Accessed January 12, 2021. Article abstract. <https://n.neurology.org/content/early/2021/01/06/WNL.00000000000011373>
2. Palacios N, Gao X, McCullough ML, et al Obesity, diabetes, and risk of Parkinson's disease. *Mov Disord*. 2011;26:2253-2259. Accessed January 12, 2021. Article full text. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3627531/>