Antioxidants Appear to Protect Against Diabetes

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By Alison McCook

NEW YORK (Reuters Health) - Eating a diet rich in antioxidants, such as vitamin E, appears to ward off diabetes, new research reports.

A group of Finnish researchers found that people who ate diets that contained the most vitamin E were 30 percent less likely to develop type 2 diabetes, the most common form of the disease, than people who consumed the least amount of vitamin E.

People who consumed large amounts of carotenoids, a group of compounds that produce the red, yellow, and orange colors found in many fruits and vegetables, were also less likely to develop type 2 diabetes.

Vitamin C intake, in contrast, appeared to exert no effect on diabetes risk.

Study author Jukka Montonen of the National Public Health Institute in Helsinki told Reuters Health that more studies are needed before researchers can recommend that people at risk of type 2 diabetes switch to an antioxidant-rich diet to ward off the disease.

However, Montonen noted that antioxidants are present in whole grains and fruits and vegetables, important ingredients for an overall healthy diet.

"Our findings are in line with the general recommendation to include plenty of vegetables and fruits in one's daily diet," the researcher noted.

Losing any excess weight and staying physically fit are two other important steps people should take to ward off type 2 diabetes, Montonen added.

Previous research has shown that vitamin E and other antioxidants may protect people from type 2 diabetes by mopping up free radicals, cell-damaging particles that are a byproduct of normal metabolism.

During the current study, Montonen and colleagues followed more than 4,000 people between the ages of 40 and 69 for 23 years, noting what they ate and who developed type 2 diabetes.

The researchers linked type 2 diabetes risk to a number of different forms of vitamin E, carotenoids and vitamin C.

During the study follow-up, 164 men and 219 women developed type 2 diabetes.

Although overall intake of vitamin E and carotenoids appeared to reduce the risk of diabetes, certain forms of those antioxidants showed more of an inhibiting effect than others.

The researcher added that the complex nature of our diets makes it difficult to pinpoint whether a single antioxidant can truly reduce the risk of diabetes, perhaps explaining why vitamin C appeared to offer no protection from the condition.

"Instead of isolated nutrients, people eat meals mixing different foods, giving several nutrients a chance to interact. The effect of the complex overall diet may conceal the effect of single nutrients," Montonen explained.

Montonen added that people who ate an antioxidant-rich diet may simply have had a healthier diet overall, making it hard to determine whether the protective effect came from antioxidants themselves.

The researcher noted that people who are trying to reduce their risk of diabetes through diet should stick to fruits, vegetables and other antioxidant-rich foods, rather than vitamin supplements.

"We do not know the beneficial amount or combination of the antioxidants. Vitamin supplements should not be recommended for prevention of type 2 diabetes," Montonen said.

SOURCE: Diabetes Care, February 2004.

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taken in reliance thereon.