

To Cut Risk of Heart-Disease Death, Try Eating More Carrots

EVERYBODY KNOWS that carrots are supposed to be good for your eyes, but now a new study suggests Bugs Bunny's favorite food may also reduce your risk of dying from heart disease. An international team of scientists, publishing their results in the *Journal of Nutrition*, reports that consumption of both the familiar beta-carotene as well as alpha-carotene was associated with roughly a 20% lower likelihood of dying from cardiovascular disease.

Led by Brian Buijsse of Wageningen University in the Netherlands, the researchers looked for possible cardiovascular benefits of carotenoids, vitamin C and the two most common dietary forms of vitamin E. Only two of the carotenoids, beta- and alpha-carotene, were associated with reduced heart-disease mortality. Although beta-carotene is a precursor of vitamin A in the body, alpha-carotene is not—suggesting an effect unrelated to vitamin A.

The research followed 559 men, average age 72, participating in the Zutphen Elderly Study, who were initially free of chronic disease. During a 15-year follow-up period, 197 men in the group died of cardiovascular disease.

After adjusting for factors such as age and smoking, increased intake of beta-carotene was associated with a 20% reduced risk of cardiovascular-disease mortality. Increased intake of alpha-carotene was linked to a 19% reduced risk.

The primary source of both carotenes for participants was the humble carrot. Simply eating more carrots, in fact, was associated with a 17% reduced risk of death from heart disease.

Buijsse and colleagues cautioned that further research is needed to explain the connection between the two carotenoids and heart health. Because the study relied on the cross-check dietary history method to collect data, the results also may be susceptible to errors in recall by the participants.

While it certainly can't hurt to boost your carrot consumption, these findings don't mean you should start buying beta-carotene supplements. Previous research has indicated that high levels of beta-carotene supplementation may have drawbacks for your health, including an increased risk of lung cancer for smokers.

What Else Is Up, Doc?

You don't have to eat like Bugs Bunny to get plenty of alpha- and beta-carotene. Other foods high in these heart-healthy carotenoids include:

- Peppers, both sweet red peppers and hot chile peppers
- Pumpkin
- Sweet potatoes
- Butternut squash
- Collard and beet greens
- Swiss chard

TO LEARN MORE: *Journal of Nutrition*, February 2008; abstract at jn.nutrition.org/cgi/content/abstract/138/2/344. ♦

Vitamin E Levels Predict Physical Decline

YOUR BODY'S LEVEL of vitamin E may offer a peek into your future. A new study published in the *Journal of the American Medical Association (JAMA)* reports that low vitamin E levels are associated with subsequent decline in physical function.

Vitamin E status is often seen as an indicator of good versus poor nutrition. The researchers, led by Benedetta Bartali, RD, PhD, of Yale University School of Medicine, noted, "Although the findings from this epidemiological study cannot establish causality, they provide a solid base that low concentration of vitamin E contributes to decline in physical function. Clinical trials may be warranted to determine whether optimal concentration of vitamin E reduces functional decline and the onset of disability in older persons with a low concentration of vitamin E."

Because participants in the study did not take vitamin supplements, it's not

known whether the use of supplements would yield beneficial effects. The necessary level of vitamin E, researchers said, "can be easily reached through diet, from sources such as almonds, tomato sauce and sunflower seeds among others."

The study followed 698 men and women age 65 or older in Tuscany, Italy, for three years. Decline in physical function was defined as a loss of at least one point in the Short Physical Performance Battery during the follow-up. This included three objective tests of physical function: four-meter walking speed, repeated chair rises and standing balance.

Researchers measured levels of several micronutrients, including iron, folate and vitamins B6, B12, D and E. Only a low concentration of vitamin E was significantly associated with subsequent physical decline.

Bartali and colleagues cited previous

studies "suggesting that oxidative stress is involved in muscle fatigue and that antioxidants [such as vitamin E] play a preventive role in muscle damage by reducing oxidative injury." Besides increased oxidative stress leading to muscle or DNA damage, the researchers speculated, low vitamin E levels might exacerbate conditions such as atherosclerosis or contribute to the development of neurodegenerative disorders.

"The decline in physical function that occurs with aging often represents the early stage of a continuum leading to disability and other important adverse outcomes such as institutionalization," researchers wrote. They noted that the potential harmful effects of poor nutrition on physical function in older persons is not well understood.

TO LEARN MORE: *JAMA*, Jan. 23, 2008; abstract at jama.ama-assn.org/cgi/content/abstract/299/3/308. ♦

Did you know... In a survey of 1,009 adults about their knowledge of vitamins and minerals, 56% incorrectly identified the poison arsenic as an essential nutrient.

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