

# Five Servings of Fruits and Vegetables Dip Stroke Risk

By Peggy Peck, Managing Editor, MedPage Today

Reviewed by Rubeen K. Israni, M.D., Fellow, Renal-Electrolyte and Hypertension Division, University of Pennsylvania School of Medicine January 26, 2006

LONDON, Jan. 26 - Consuming a diet rich in fruits and vegetables may significantly reduce the risk of stroke, researchers here reported.

A meta-analysis of eight studies with data from more than 250,000 adults, reported in the Jan. 28 issue of *The Lancet*, found that people who ate more than five servings of fruits and vegetables daily reduced their stroke risk by 26% (95% CI: 21-31%) compared with people who ate less than three servings of fruits and vegetables daily. This welcome news comes at the end of week in which two popular icons of healthy eating -- soy protein and omega-3 fatty acids -- failed to prove their preventive claims.

A scientific statement from the American Heart Association said soy protein and isoflavones have no significant benefit for LDL, HDL, and triglycerides. Nor, the AHA said, does soy protein lower blood pressure.

Omega-3 fatty acids, meanwhile, don't reduce the risk of cancer in humans, according to a study reported in the *Journal of the American Medical Association*, although no one attacked their heart-healthy credentials.

But the well-worn admonition to "eat your vegetables" once again proved to be solid advice, according to Feng He, Ph.D., and colleagues of St. George's University here.

Moreover, the data suggested a dose response -- people who consumed three to five servings of fruits and vegetables daily had an 11% (95% CI: 3-17%) reduction in stroke risk compared with those eating less than three servings of fruits and vegetables every day.

Patrick Breaux, M.D., a consulting cardiologist at the Ochsner Heart and Vascular Institute in New Orleans, said the study results offer "just the type of robust numbers that clinicians can use when trying to educate patients about the need to substitute healthy nutrition for the type of hollow calories that come from fast-food diets."

Dr. Breaux, who was not involved in the study, said the findings fit well with the current recommendations from the AHA, which has been emphasizing the value of diets rich in "fruits, vegetables and nuts."

The meta-analysis included data from 257,551 people, with an average follow-up of 13 years. During the follow-up, there were 4,917 stroke events reported.

A subgroup analysis confirmed that diets rich in fruits and vegetables reduced risk of both hemorrhagic and ischemic strokes in people who consumed more than five servings daily. Only the ischemic strokes were reduced in people who consumed three to five servings daily.

In a commentary in *The Lancet* that accompanied the article, Lyn M. Steffen, Ph.D., M.P.H, R.D., an assistant professor at the University of Minnesota School of Public Health in Minneapolis wrote that American adults on average eat only 3.75 servings of fruits and vegetables daily. That low intake is, she wrote, "a major modifiable risk factor contributing to the burden of ill health."

Primary source: *The Lancet* Source reference: He FJ et al "Fruit and vegetable consumption and stroke: meta-analysis of cohort studies" *Lancet* 2006;367:320-26 Additional source: *The Lancet* Source reference: Steffen LM "Eat your fruits and vegetables" *Lancet* 2006; 367:278-79