

Magnesium associated with lower risk for some strokes in male smokers

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Male smokers who consume more magnesium appear to have a lower risk for cerebral infarction, a type of stroke that occurs when blood flow to the brain is blocked, according to a report in the March 10 issue of *Archives of Internal Medicine*.

Recent studies indicate that changes in diet may help prevent stroke, according to background information in the article. Hypertension, or high blood pressure, is a risk factor for stroke; therefore, dietary measures that reduce blood pressure may in turn affect stroke risk. Consuming more magnesium, calcium and potassium has been associated with lower blood pressure in previous studies, while sodium has been positively associated with hypertension.

Susanna C. Larsson, Ph.D., of the Karolinska Institutet, Stockholm, Sweden, and colleagues analyzed the diets of 26,556 Finnish male smokers age 50 to 69 years who had not previously had strokes. In addition to the types of food they ate, the men reported other characteristics including medical, smoking and physical activity histories. Their height, weight and blood pressure were recorded, and a blood sample was taken.

During an average of 13.6 years of follow-up, 2,702 of the men had cerebral infarctions; 383 had intracerebral hemorrhages, which involve bleeding into the brain tissue; 196 had subarachnoid hemorrhages, or bleeding between the brain and the thin tissues that cover it; and 84 had unspecified types of strokes.

After adjusting for age and cardiovascular risk factors, such as diabetes and cholesterol level, men who consumed the most magnesium (an average of 589 milligrams per day) had a 15 percent lower risk for cerebral infarction than those who consumed the least (an average of 373 milligrams per day). The association was stronger in men younger than 60 years. Magnesium intake was not associated with a lower risk of intracerebral or subarachnoid hemorrhage, and calcium, potassium and sodium intake were not associated with risk for any type of stroke.

“An inverse association between magnesium intake and cerebral infarction is biologically plausible,” the authors write. In addition to lowering blood pressure, magnesium may influence cholesterol concentrations or the body’s use of insulin to turn glucose into energy. Either of these mechanisms would affect the risk for cerebral infarction but not hemorrhage.

Source: JAMA and Archives Journals

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