

May 30th, 2012

A new study shows that higher intakes of the B vitamin folate during young adulthood may be associated with a lower risk of hypertension later in life.

HIGHER FOLATE INTAKE AMONG YOUNG ADULTS IS ASSOCIATED WITH LOWER RISK OF HYPERTENSION LATER IN LIFE

Previous research has suggested that the B vitamin folate may influence blood pressure (BP) by reducing plasma homocysteine levels and/or increasing nitric oxide synthesis in endothelial cells in the vessels. Research in humans, and in particular longitudinal studies, has been limited.

In a paper recently published in the American Journal of Clinical Nutrition, scientists investigated whether dietary folate intake is associated with the incidence or development of hypertension over a 20 year follow-up period.

This prospective study included 4,400 normotensive men and women aged 18–30 years from the Coronary Artery Risk Development in Young Adults that began in 1985. The young adults were evaluated 6 separate times thereafter, in 1987, 1990, 1992, 1995, 2000, and 2005. Diet was assessed using a dietary-history questionnaire at baseline and in 1992 and 2005. The incidence of hypertension was defined as the first occurrence at any follow-up examination of systolic BP ≥ 140 mm Hg, diastolic BP ≥ 90 mm Hg, or use of blood pressure medication.

A total of 989 cases of hypertension were identified during the 20 years of follow-up. Participants in the highest quintile (top 20%) of total folate intake had a 52% lower incidence of hypertension than did those in the lowest quintile. The protective effect of folate was more pronounced in whites than African Americans, although it was significant in both groups.

The results of this study show that higher folate intake in young adulthood was associated with a lower incidence of high blood pressure later in life. More research is needed to establish the specific mechanism or cause of the beneficial association.

Pengcheng Xun et al. Folate intake and incidence of hypertension among American young adults: a 20-y follow-up study. Am J Clin Nutr May 2012 vol. 95 no. 5 1023-1030.