Response to Letter to the Editor from Koehler et al.

Dear Dr. Visek:

We would like to thank Kathleen Koehler et al. (1997) for pointing out that they have found food sources contributing to folate intake in their sample of elders in the New Mexico Aging Process Study that were similar to those we saw in Framingham, Massachusetts, elders. This lends further support to the importance of food choices by elderly Americans. They further note that many breakfast cereals are now fortified not only with folate but also with vitamins B-6 and B-12, the latter in a crystalline form more readily absorbed by elders suffering from atrophic gastritis, and that many fruits and vegetables are also good sources of vitamin B-6. All three of these B vitamins may reduce homocysteine levels, and they are correct in stating that these may be contributing to the effect of these foods on homocysteine levels.

In earlier work with the Framingham cohort, Selhub et al. (1993) demonstrated that total homocysteine concentrations (tHcy) were inversely associated with blood levels of each of these three vitamins, but most strongly with folate. Odds ratios for elevated homocysteine (>14 μmol/L), for the lowest compared with the highest decile of plasma vitamin concentration, were 11.9 for folate, 3.4 for vitamin B-12 and 2.7 for vitamin B-6. Although folate intake and status seem to have the strongest association with homocysteine concentration in the Framingham study, all three of these vitamins clearly contribute to homocysteine status. It is interesting to note that Koehler et al. (1996) found that vitamin B-12 explained more of the variance in homocysteine levels than folate did in their sample of elders from New Mexico. We do not know the reason for this differing result, but it could be due to differences in the nutrient status of the two populations. The amount of variance in homocysteine concentration explained by each particular nutrient in a population will largely reflect the prevalence of low levels of that nutrient.

Katherine L. Tucker
Jacob Selhub
Irwin Rosenberg
Jean Mayer USDA Human Nutrition Research Center of Aging at Tufts University
Boston, MA 02111

LITERATURE CITED

