in the control group (9% vs. 23%; p = 0.20). Nitrogen balance, serum albumin, and certain measures of immune function were significantly better in the L-glutamine group than in the control group.

Comment: While glutamine is considered a nonessential amino acid, additional amounts are needed under conditions of extreme stress, in order to support gastrointestinal and immune function. The results of the present study indicate that the addition of L-glutamine to parenteral nutrition decreased the number of infections and possibly decreased mortality, when compared with standard parenteral nutrition, in patients with severe acute pancreatitis. L-glutamine has been reported to produce similar benefits in other critically ill patients. For parenteral nutrition, L-glutamine is frequently given in the form of L-alanyl-L-glutamine, because of its greater stability.


Can B Vitamins Prevent Dementia?

Some 5,442 female health professionals (aged 40 years or older) who had cardiovascular disease or at least three cardiovascular disease risk factors were randomly assigned to receive daily 2.5 mg of folic acid, 50 mg of vitamin B6, and 1 mg of vitamin B12 or placebo for a mean of 5.4 years. The study was conducted after folic acid fortification had begun in the US. The mean change of cognitive function from baseline did not differ between the active-treatment and placebo groups. However, B-vitamin supplementation appeared to preserve cognitive function among the 30% of women who had low baseline dietary intake of B vitamins (defined as folate intake less than 279 mcg/day, vitamin B6 intake less than 1.9 mg/day, or vitamin B12 intake less than 2.4 mcg/day).

Comment: It would have been nice to have found that B-vitamin supplementation can prevent dementia in the population at large. However, the finding that it can slow the loss of cognitive function in a subset of female health professionals is encouraging. If 30% of well-educated and presumably financially stable women have B-vitamin intakes low enough to accelerate cognitive decline, it is likely that an even larger percentage of less well-educated and lower-income individuals are consuming inadequate amounts of B vitamins. Can you imagine how much sharper the old folks would be if the food industry just threw some vitamin B6 and vitamin B12, and perhaps a little more folic acid, into the white bread?


Iodine, Pregnancy, and Quality Control

Iodine content was measured in 60 randomly selected nonprescription and prescription prenatal vitamins marketed in the US that listed iodine as an ingredient on the label. Twenty-six percent of the products that included potassium iodide and 40% of the products that contained kelp actually had less than 50% of the amount of iodine stated on the label. Three percent of the products that contained potassium iodide and 12% of the products that contained kelp had more than 150% of the iodine content stated on the label.

Comment: Iodine deficiency during pregnancy can lead to hypothyroidism in the fetus, which can result in developmental deficits, including mental retardation. Excessive iodine intake may also cause adverse effects, such as hypothyroidism in the mother. The Institute of Medicine recommends a daily iodine intake of 220 mcg during pregnancy. Women who consume a low-salt diet or do not use iodized salt and who do not consume significant amounts of iodine-rich foods are at risk for developing iodine deficiency. Therefore, it is important that an adequate amount of iodine (such as 150 mcg per day) be included in prenatal nutritional supplements. The results of the present study indicate that the iodine content of many prenatal supplements differs substantially from the amount stated on the label. Products containing kelp as the source of iodine were less likely to be close to the stated amount than were products containing potassium iodide. Improvements in quality control are badly needed.
