

Bioavailability of iron in soy-based formula and its effect on iron nutriture in infancy

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Soy products have been reported to inhibit absorption of nonheme food iron and fortification iron. Iron bioavailability from a soy formula (Prosobee-PP 710) (iron added as ferrous sulfate: 12 mg/L; ascorbic acid: 54 mg/L) was examined in 16 adult women using the extrinsic radioactive tag method. The geometric mean absorption from the soy formula was only 1.7%. The effect of this formula on iron nutrition in infants was studied in 47 healthy term infants weaned spontaneously before 2 months of age and who received the formula ad libitum until 9 months of age. For control, 45 infants received a cow's milk formula fortified with ferrous sulfate (iron: 15 mg/L; ascorbic acid: 100 mg/L), which has been shown to be effective in preventing iron deficiency, and 49 additional breast-fed infants were also followed. All babies received solid foods (vegetables and meat) starting at 4 months of age. Iron nutritional status was determined at 9 months. Infants fed soy formula and iron-fortified cow's