



Infant Nutrition Council

Industry supporting both Breastfeeding & Infant Formula

This article was written by Professor John Birkbeck, MB, ChB (Edin), F.R.C.P.C., paediatrician and Adjunct Professor of Human Nutrition, Institute of Food, Nutrition and Human Health, Massey University, Albany Campus, Auckland NZ and does not necessarily reflect the views of the Infant Nutrition Council

Multivitamins in pregnancy

Although the routine supplementation of pregnant women with folate and iron is widely practiced, the possible role of supplementation with other micronutrients is not known. Some light is thrown on this question by a study from China. 5828 pregnant women were randomly given folic acid, folate plus iron, or a multinutrient supplement from 14 weeks' gestation until delivery. The multinutrient supplement contained 5 minerals and 10 vitamins at levels appropriate for pregnancy.

1305 of the newborns were examined at 3, 6 and 12 months of age for mental and psychomotor development. Compared to those pregnancies given either folate or folate plus iron, those infants from pregnancies receiving the multinutrient supplement had slightly higher mental development scores at one year of age, although it did not change psychomotor scores.

The improvement was small but significant. No recommendations resulted from the study report.

Comment: *As is common in studies of supplements, unfortunately no measurement of the micronutrient status of the mothers was taken prior to starting the supplements, or indeed after. Since the area in question is presumably a rural one where nutritional status may be less than optimum, any improvement might have been the result of correcting a preexisting maternal deficiency rather than some other effect. Likewise it does not tell us whether a similar supplement would have any benefit at all in pregnant women already optimally nourished. And of course it doesn't tell us which micronutrients or combination thereof might have been on benefit. It will be recalled that a similar problem existed with the early work on neural tube defect [spina bifida]. The first studies simply showed that a multivitamin supplement reduced the risk of the condition but not which vitamin. Worse, once the benefit was found it became ethically difficult to try different combination of vitamins to see which one(s) were involved. It set back programs of supplementation by some years.*

Qiang Li, Hong Yan, Lingxia Zeng, Yue Cheng, Weifeng Liang, Shaonong Dang, Quanli Wang, and Ichiro Tsuji: Effects of Maternal Multimicronutrient Supplementation on the Mental Development of Infants in Rural Western China: Follow-up Evaluation of a Double-Blind, Randomized, Controlled Trial. *Pediatr* 2009;123:e685-e692.

PO Box 7190
Yarralumla ACT 2600
Australia

Phone +61 2 6282 4748 (Australia)
+64 9 354 3272 (New Zealand)
Fax +61 2 6161 4782
Email info@infantnutritioncouncil.com