applies—namely, that for there to be no bias in the first and second cohorts combined, women of relatively high social class in the second cohort must have had a *high* risk of neural tube defect recurrence, a surprising result that is contrary to knowledge of the epidemiology of the disorder. Indeed, the opposite effects in the two cohorts are extremely unlikely to have arisen by chance. The relative risk of having a neural tube defect pregnancy for 'low' social class women compared with 'high' social class women was 2.98 in the first cohort and 0.19 in the second, after allowing for supplementation ($p=0.003$). This apparently inconsistent result between the two parts of the study needs to be explained before it can be concluded that, on average, social class was not related to neural tube defects and so could not have biased the results.

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Drs Wild and Sheppard and Professor Smithells comment: The points raised by Professor Wald and Dr Thompson have been raised and responded to in the papers they cite and elsewhere. Further reiteration would not be helpful, but we must again refute their inaccurate statement that our observations on social class and recurrence of neural tube defects are 'contrary to knowledge of the epidemiology of the disorder'. We are aware of only one published study of *recurrence* of neural tube defects by social class.¹ This showed a lower recurrence rate in classes I + II than in III + IV + V, but the difference was not significant.

Wald and Thompson believe that 'the main risk factors (for neural tube defects) are still unrecognised' but are curiously reluctant to consider, on the evidence, that vitamins might be one of them. We quite understand, however, that Professor Wald is not open to persuasion in this matter and we wish him all success in his own study.

Reference

- Nevin NC, Johnston WP, Merrett JD. Influence of social class on the risk of recurrence of anencephalus and spina bifida. *Dev Med Child Neurol* 1981;**23**:155–9.

Plasma zinc concentrations in iron supplemented low birthweight infants

Sir,

We were interested to read the recent paper by Salvoli *et al* on plasma zinc concentrations in iron supplemented infants.¹ It is indeed an interesting question whether low birthweight babies fed an iron fortified formula need additional iron. The authors conclude that they do, but we wonder whether a difference in mean haemoglobin of 9 g/l is important and whether a haemoglobin <110 g/l signifies anaemia in the first year of life. The study was not a randomised trial; one group received iron supplements for more than five months, whereas the other group had not received iron supplements for three months but could have previously for up to nine months. The authors also address the question of whether iron supplements influence plasma zinc concentrations and imply that plasma zinc concentrations reflect zinc state or nutrition. This is an incorrect assumption as plasma zinc is highly influenced by recent dietary intake, stress, the metabolic state of the patient, postnatal age, and a diurnal variation. It is not mentioned when, in relation to feeds or iron supplements, the blood samples were taken.

A ratio of inorganic iron:zinc greater than 2 has repeatedly been shown to influence zinc absorption. It is likely that the zinc absorption in their infants, who received iron and zinc in a 5:1 ratio, would have been reduced. Whether this is important, however, remains to be shown. We feel that it should be made clear that the authors were not studying zinc state or zinc absorption but only plasma zinc concentrations. The importance of their findings is unclear and surely does not reassure us that iron supplements do not influence zinc metabolism.

Reference

- Salvoli GP, Faldella G, Alessandrini R, Lanari M, Benfenati L. Plasma zinc concentrations in iron supplemented low birthweight infants. *Arch Dis Child* 1986;**61**:346–8.

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Dr Salvoli comments:

The only purpose of our study was to determine whether administration of high supplemental iron to low birthweight infants might result in zinc deficiency, as manifested by a decrease in plasma zinc.

According to Yip *et al*, although serum zinc is not a reliable indicator of zinc nutrition in individuals, it probably provides useful information for groups of subjects.¹

Thus the equivalent plasma zinc concentrations found in two groups of low birthweight infants, comparable in all but the amount of iron supplement, reassures us that long