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CORRESPONDENCE

Correspondents are urged to write briefly so that readers may be offered as wide a selection of letters as possible. So many are being received that the omission of some is inevitable. Letters must be signed personally by all their authors.

Diet and heart disease

SIR,—The findings of Professor J N Morris and his colleagues (19 November, p 1307) are intriguing, but we do not think that they are easy to interpret, nor that the most obvious deductions are necessarily the correct ones.

The most striking finding is the higher cereal fibre intake of those who subsequently escaped clinical heart disease. However, this finding cannot be accepted at face value. It is assumed that what a man ate in a single week 10-20 years ago is the same as what he ate in the ensuing 500 to 1000 weeks. This seems to us an act of considerable faith which is unsupported by any follow-up dietary analyses.

In the course of 10-20 years people do change their habits, dietary and otherwise, and we suggest that the high cereal fibre eaters were particularly likely to do so. Their increased fibre was obtained apparently from brown bread and from breakfast cereals. Those who eat breakfast cereals and brown bread are likely to be more health-conscious than the average. Indeed, we are told that higher cereal fibre eaters smoked less and that they had a higher energy intake which probably means that they exercised more. If they were more health-conscious they were more likely during the years of the survey to have heeded warnings about obesity, sugar, saturated fat, and cigarette smoking. In so doing they could have reduced their coronary risk independently of their cereal fibre intake. There is no clue in the authors' paper as to whether their subjects did or did not modify their life styles in these ways in the 10-20 years after their diets were assessed.

Even if we take the cereal fibre data at face value we are faced with a problem. The average intakes of those who did and did not develop heart disease were 6·7 and 8·9 g respectively. The difference is so small that its biological significance must be questioned. Could a mere 2·2 g of cereal fibre, equivalent to half a slice of wholemeal bread daily, determine whether or not a man develops coronary heart disease? Very much larger amounts have been given to volunteers in experiments showing that bran alters bile acid metabolism[1 2] and colonic function.[3-6] Before heart-preserving properties are attributed to cereal fibre let it be recalled that in rural Finland, where coronary heart disease is exceptionally common, dietary fibre intakes are high and the composition of the fibre "is that found in diets derived from cereals."[7]

We believe there are sound arguments for eating wholemeal bread, but the prevention of coronary heart disease is not yet one of them.

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[3] Findlay, J M, *et al*, *Lancet*, 1974, **1**, 146.
[4] Payler, D K, *et al*, *Gut*, 1975, **16**, 209.
[5] Cummings, J H, *et al*, *American Journal of Clinical Nutrition*, 1976, **29**, 1468.
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SIR,—Professor J N Morris and his colleagues concluded (19 November, p 1307) that men who had a high energy intake and, independently, a high intake of dietary fibre from cereals developed far less clinical coronary heart disease (CHD) than the remainder of the observed men. Over the past 20 years a