women, and lactating mothers respectively.[6] In 1979 Aggett and Harries listed some 23 clinical manifestations of zinc deficiency, including such varied conditions as mental depression, mood lability, growth retardation, delayed wound healing, and diarrhoea.[2] To these may now be added anorexia nervosa,[7] oligospermia,[8] and subnormal birth weight,[9] inter alia.

It would therefore be prudent to exclude zinc deficiency as a factor when these numerous conditions present before assuming that zinc deficiency is rare. We venture to suggest that our "taste test" may have useful clinical applications in this connection.

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## The Tromsø heart study

SIR,—The further observations of the Tromsø heart study (23 February, p 893) that consumption of unfiltered coffee is associated with rising serum cholesterol values focuses our attention on the material which fails to pass through the filter, for subjects who drank filtered coffee showed no significant rise in serum cholesterol values. This material includes poorly soluble colloidal complexes, and little is known about them (M N Clifford, personal communication).

Unlike tea, black coffee is a highly surface active beverage. We have prepared black unfiltered coffee as described in the Tromsø heart study and filtered it using a gold plated permanent coffee filter (Rowenta model), and we have also filtered black ground coffee through a standard Melitta paper filter. In both cases the surface tension of this filtrate rose by up to 4 mN/m (dynes/cm), equivalent to a reduction of up to one half the original surfactant concentration, as measured by standard dilution studies of coffee surface tension. This study was performed using soft and hard water to prepare the coffee, and we found that these surface tension changes were greatest if, instead of using soft water (0 ppm calcium), we used hard water (130 ppm calcium).

Northern Norway is a soft water area (D S Thelle, personal communication), and plasma cholesterol concentrations have been noted to be slightly higher in populations living in soft water areas than in those living in hard water areas.[1]

If the "coffee factor" is a surfactant which may be partly removed by filtering, especially if converted to insoluble complexes in hard water, this might explain why coffee drinking has been associated with hypercholesterolaemia in only some of the many studies from different areas.[2-4] There might possibly be a causal relation between the surfactant activity of coffee and serum cholesterol concentrations.

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## Doctors' dilemmas

SIR,—Dr P J Taylor stated that I had made an error of fact when I stated that the Faculty of Occupational Medicine's ethical guidelines were at variance with the pronouncements of the General Medical Council (16 February, p 546). While I have no objections to Dr Taylor disagreeing with my opinion, I object to him stating that I am factually wrong.

One paragraph in the GMC's *Professional Conduct and Discipline: Fitness to Practise* refers specifically to occupational physicians:

> Special problems in relation to confidentiality can arise in circumstances where doctors have responsibilities both to patients and to third parties, for example, in the practice of occupational medicine. An occupational physician should ensure that any employee whom he sees in that capacity understands the duty of the occupational physician in relation to the employer and the purpose of the consultation. In particular, where an occupational physician is asked by an employer to assess the fitness to work of an employee, he should not undertake such assessment except with the informed consent of the employee.

In 1980 the Royal College of Physicians Faculty of Occupational Medicine issued guidance on ethics for occupational physicians. On both the issue of confidentiality and the matter of disclosing information on hazards to employees this document was strongly criticised. Some of these criticisms resulted in a modified code issued in 1982. Two paragraphs in the 1980 document caused considerable concern. The document said that "it can be inferred that the individual agrees to disclosure of the results by submitting himself for examination"—that is, occupational physicians felt that they were not bound by the very clear instructions from the GMC. In the 1982 version of the ethics code the faculty changed its guidance by saying "It might be inferred by his attendance that the individual agrees to examination and to the disclosure of the results." It seems, however, that the gulf between the GMC's rules and the faculty's is still considerable. This is not a trivial issue as it underlines the whole problem of occupational physicians.

Many occupational physicians wish on the one hand to be protected by the status that the medical profession has because of its attitude in general to confidentiality, while at the same time reserving to themselves the right to report to management. There is a conflict between the normal patient-physician relationship and the role of the examining physician. It appears that the Faculty of Occupational Medicine is fudging this so that employees are occasionally in considerable doubt about whether the consultation is confidential or not.

The Faculty of Occupational Medicine is equally controversial on the other issue of disclosure of information to employees. Companies claim they must protect commercial secrecy and that it is the duty of their employees, including occupational physicians, to do likewise. This situation can cause conflict for the physician because the hazards of the product might also affect the workers. In its original guidance the faculty side stepped this issue by simply telling the doctor that he or she should consult other doctors about management's refusal to disclose. The document did not say what the physician should do if management continued to refuse permission for a physician to give information to workers. As a result of criticism the Faculty of Occupational Medicine decided to add a sentence to the original paragraph: "In the last resort he may warn the workers himself." This brings out the essence of the possible compromised position that an occupational physician is in vis à vis a company which feels it has the right to veto the physician's role, particularly in respect of disclosure of information. The GMC has not pronounced on this latter aspect but has recently been requested to do so.

In the light of the above, Dr Taylor's assertion that I am incorrect would itself seem to be incorrect. He may consider the Faculty of Occupational Medicine's ethical guidance to be satisfactory. I do not.

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**Dr Taylor replies below.—ED, *BMJ*.

SIR,—Sheila McKechnie's letter confirms my view that her criticisms of the faculty's guidance derive primarily from the critical comments made about the first edition,[1] and the extracts she quotes from the second edition (1982) are misleading since they are selective and incomplete.

On her first point, about obtaining the informed consent of employees before undertaking routine examinations, the whole paragraph[2] reads:

> In certain circumstances the occupational physician carries out routine examinations or assessments to determine the fitness of an individual for a particular job (for example HGV/PSV, pre-employment, food handlers). Sometimes the examinations are statutory, sometimes they are not. It might be inferred by his attendance that the individual agrees to the examination and to the disclosure of the result. Nevertheless, the occupational physician should himself recognise and make clear to the individual that he is acting as a "medical examiner" (see Introduction). Clinical details of such examinations may only be disclosed with the individual's informed agreement.

Her second point related to disclosure of information about hazardous processes to employees if the management refuses permission. The full statement reads:

> [The occupational physician's] responsibility for the health of workers exposed to hazards should