

In our view Dr Bradley and his colleagues have failed to produce sufficiently secure evidence to allow them to conclude that in all infants of diabetic mothers growth is promoted to such a degree that "they should be considered to be at risk of the biochemical and mechanical consequences of macrosomia," and we express our concern that this conclusion may lead to an unnecessary and undesirable increase in the already high rate of caesarean sections in diabetic women.

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Income and standards of living of disabled people

SIR,—The Office of Population Censuses and Surveys' reports on disability,^{1,2} reviewed by Miss Daphne Gloag,³ have highlighted many problems of disabled people. The reports are, however, difficult to compare with others as the threshold of disability is much lower than was considered previously and the scoring system is not easily compared with existing measures of disability.¹ This distortion complicates the discussion of the extra daily living costs incurred owing to disability.

We interviewed in their homes people aged 16-64 who were on the social services register of handicap in our area.⁴ Our findings suggested that the costs quoted underestimate the true increased cost of disability. The mean personal extra costs for the 62 severely handicapped people (mean Barthel score 44 (SD 28)) was £11 (SD 20) at 1988 values, the standard deviation suggesting wide variation among the subjects. These costs increased to £32 (35) when the person had no informal carer. They did not include extra heating costs or loss of income to carers. Only two people had a regular earned income. Although major expenditure was incurred in employing people to help with physical care or with the home, the other main costs were in maintaining an electric wheelchair, replacing clothes and shoes, and the need for continence aids.

In a study of 111 appreciably handicapped people (mean Barthel score 76 (18)) on the same register⁵ our impression has been that since the changes in social security in April 1988 no one has gained under the new system and many have received reduced benefit. None had used either the independent living fund or the social fund. Disabled people are unaware of value added tax exemption for many goods bought for reasons of disability and cannot take advantage of the

discounts for bulk buying obtained by social services and health authorities. This has become more important with tighter local budgets. Further, inflation for disabled people may be higher than that for the general population.⁶ Thus special regular needs and equipment may be more expensive.

Finally, we draw attention to the concept of satisfaction with present standards of living and services provided. This includes knowledge of what is available in terms of services, aids, and adaptations (statutory, voluntary, and private). If disabled people or their families have no knowledge of what is available they cannot comment on its usefulness; dissemination of information is therefore important.^{7,8}

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Vindaloo and you

SIR,—Dr Ingvar Bjarnason and colleagues do not suggest possible mechanisms for changes in permeability after eating vindaloo dishes.¹ There is some biochemical reasoning behind the study of permeability after curries. Capsaicin is the main irritant ingredient of cayenne pepper and capsicums. Capsaicin releases substance P from nerve endings,² and this undecapeptide has profound effects on contractility of smooth muscle.³ This in itself might be responsible for the irritable bowel-like effects of curries. In addition, substance P causes mast cell degranulation in vitro,⁴ and we have shown that anaphylaxis and mast cell degranulation in animals cause a transient increase in permeability which returns to normal within a few hours afterwards.⁵

We performed a similar experiment in 1986 with the idea of offering a paper for the Christmas edition of the *BMJ* but did not submit it in view of negative results. Eight healthy volunteers had permeability tests before and after a hot Indian meal. Each volunteer swallowed edetic acid labelled with 9.3 MBq chromium-51 at 0800 (having fasted overnight) on two separate occasions on two days before and once the morning after the Indian meal. Urine was collected for 24 hours and the amounts of radiolabelled edetic acid determined and compared with standards as previously described. Mean 24 hour urinary excretion, expressed as a percentage of the dose, was 1.43 before the meal and 1.52 after the meal (mean difference 0.09, 95% confidence interval -0.48 to 0.29).

We found no change in permeability due to eating spicy foods, which supports the findings of Dr Bjarnason and colleagues. In their study

recovery of radiolabelled edetic acid in the urine seemed to be slightly increased, although the lower 95% confidence limit was close to zero at 0.02. In addition, taking only a five hour urine sample may increase any errors due to changes in intestinal transit, although the authors have previously stated that in animal models a change in gut transit does not affect the permeability to this probe.⁶

Both our studies and those of Dr Bjarnason and others may have measured permeability too late after ingestion. Further studies with a hotter curry and the urine sample taken immediately after the meal would be interesting. It would be paradoxical if the simple curry were to throw light, or indeed heat, on the expanding academic subject of gastrointestinal neuroimmunology.⁷

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SIR,—I read the paper by Dr Ingvar Bjarnason and others with scientific interest and gastronomic admiration.¹ My experience of eating Indian food—at least as a medical student—is that curries are often washed down with volumes of beer or lager. In view of previous work in rats showing that ethanol promotes the absorption of small molecules into and through the mucosa of the small intestine² (in that case horseradish peroxidase), I wonder whether the results from Harrow can be explained on the basis of ethanol rather than spices.

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AUTHORS' REPLY,—In the interests of science (as stated in our introduction) and the known effects of even British beer on the small intestine¹ the volunteers deprived themselves of any curry lubricant throughout the study.

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