Sweet truth

Sugar consumption needs to be reduced

SIR: John Yudkin has correctly called attention to epidemiologic studies that relate a high intake of sugar with an increased incidence and severity of dental caries (see TIBS, June 1976, p. N 126). Similarly, he calls attention to the statistical relationship between obesity and the amount of sugar consumed annually by a given population. He hastens to emphasize that this does not prove that sugar causes obesity, although many believe this to be the case. Yudkin also calls attention to experimental evidence that large amounts of dietary sugar can increase the blood pressure, as well as the blood lipids of certain species of animals. He does not claim that sugar per se causes coronary heart disease, although numerous epidemiologic studies do show a significant relationship between the two.

The presentation by Frederick Stare is not worthy of his usual performance. I wonder how many readers can agree with his statement that '15 to 30% of total calories supplied by sucrose represents a 'moderate' intake. And later, when he virtually denies any relationship between dietary sugar and dental caries, he is indeed stretching the credulity of the reader. Similarly, his reference to the recommendations for liberalizing the carbohydrate intake of diabetic patients were distorted by his suggestion that sugar can be included among these carbohydrates. The original work upon which this recommendation was based [1] in part, showed clearly that elimination of as much simple sugar as possible and inclusion of complex carbohydrates did result in a reduction in blood lipids without interfering with the level of diabetic control. The same is not true when a substantial portion of the carbohydrate is provided as sugar. And finally, Stare seems to be exceeding the bounds of reason when he asks the reader to accept his argument that sugar causes foods to be consumed, yet does not contribute to obesity. It seems to me that 'he can't have it both ways'.

ROBERT E. HODGES
Division of Medical Sciences, University of California, Davis, California, U.S.A.

International survey data

SIR: According to Frederick Stare sugar does not cause obesity (see TIBS, June 1976, p. N 126). My mother, totally ignorant of modern nutrition that she is, knows full well that sugar makes her fat. Anyone knows you cannot eat meat in defiance of the appetite but can easily down sweet tea or coffee after the heaviest meal.

Numerous surveys have shown the close relation between the rise in sugar intake of a population and the epidemic of diabetes and heart disease that always follows. In 1963 Campbell demonstrated that sugar was the cause of massive diabetes amongst Indians and rural Zulus in South Africa [1]. Schaeffer demonstrated how sucrose led to diabetes, atherosclerosis and other ills in the Eskimos [2], while Cohen has shown that a massive rise in sugar intake in Yemenite Jews in Palestine (Israel) was followed by an equally massive rise in diabetes and heart disease despite a drop in the polyunsaturated/saturated fats ratio [3].

The problem with interpreting international data is that both sugar and saturated fat correlate not only with heart disease but also with each other. Masironi solved this problem by relating the ratio of dietary intake 1962:1947 with the ratio of deaths from heart disease between 1965 and 1975 for people of all ages in various countries. This broke the link between sucrose and saturated fat. The correlation coefficients were +0.40 for sucrose but −0.27 for saturated fat [4].

Stare finds nothing amiss in a diet containing 15–30% of calories as sugar. Along with refined cereals this will cause a fall of around 30–70% in the intake of a dozen or more nutrients. To ignore this is surely the height of folly.

NORMAN TEMPLE
The Polytechnic, Wolverhampton, Staffordshire, U.K.

References

2. Schaeffer, O. (1971) Nutrition Today 6, 8–16