The role of fruit consumption in the prevention of obesity

The global obesity epidemic is associated with a sedentary lifestyle and diets rich in high-fat, high-energy foods. The potential role of fruit in preventing overweight and obesity is related to their relatively low energy density, high content of dietary fibre, and associated increasing satiety effect. The physical disruption of fruit is of considerable importance for satiety, as shown in studies in which fruit juices were less satisfying compared to sugar-equivalent intakes of purees and whole fruits. The potential role of fruit in the prevention of overweight and obesity may be connected to the dietary pattern of fruit intake, and with the possibility that fruit intake may substitute for other, more energy-dense foods. The majority of human prospective cohort studies in adults suggest a preventive effect of increased fruit intake on body weight gain; whereas a few studies have suggested the opposite, in the case of fruit juices. Prospective studies of children are few and inconclusive, but suggest associations between fruit intake and body weight that are related to the initial nutritional status. In behavioural intervention studies, subjects are often advised to undergo several changes towards a healthy diet and lifestyle, making it impossible to quantify the specific effect of fruit intake on body weight. In the few available intervention studies in adults, the study period was often too short to allow measures of body weight changes, and studies of overweight or obese subjects may not apply to subjects of normal weight. Intervention studies targeted at school children showed that such schemes can be effective in increasing fruit intake, but a convincing role for increased fruit intake in the prevention of overweight and obesity in children still needs to be established. The present evidence suggests that fruit consumption has a potential role in the prevention of overweight and obesity.

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