

## How effective is the 'low fat' message?

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Public health nutrition strategies have emphasised fat reduction. Attitudinal research indicates that fat consumption is associated with weight gain and heart disease and hence fat restriction is perceived as beneficial (1). Knowledge of low fat strategies for food selection and preparation suggest that the 'low fat' message has been successfully communicated. However, there is confusion and hence little consideration of type of fat.

The Heart Foundation (HF) policy on dietary fat and cardiovascular disease (CVD), based on a rigorous review of the scientific evidence, places greater emphasis on type of fat. In particular, reducing saturated fatty acid (SAFA) and increasing polyunsaturated fatty acid (PUFA) (2). Little evidence was found to support a recommendation for total fat and CVD. A subsequent HF review on the relationship between dietary fat and body weight found that energy density, rather than fat, is a major dietary determinant of energy intake. Since energy density is affected by several factors, fat reduction alone may not reduce energy intake.

Analysis of the 1995 National Nutrition Survey (NNS) data showed that on the day surveyed, only 1% of diets complied with both SAFA and PUFA recommendations, 15% with the SAFA recommendation and 10% with the PUFA recommendation (3). High intakes of whole milk, cheese, pastries, butter and cereal-based mixed dishes prevented compliance with the SAFA recommendation and low intakes of polyunsaturated margarine and oil, the PUFA recommendation. Fat modification strategies were more effective than fat reduction strategies in shifting the diets of adults towards SAFA and PUFA recommendations (3).

Dietary modelling was conducted to ensure that public health dietary strategies and food-based recommendations reflect the scientific evidence. Manipulations of a model, based on the eating patterns of adults in the NNS, showed that butter, cheese and takeaway foods (for dinner) had the most negative effect on the ratio of PUFA to SAFA. Conversely, soybean and sunflower oils, low SAFA commercial deep-frying oil and fortified soy beverage had the most positive effect on the PUFA to SAFA ratio in the model diet. It also showed that 25 g of spreads and oils can be included in an energy restricted diet and still meet SAFA, PUFA and ALA recommendations.

The evidence suggests that the emphasis of dietary messages for CVD prevention must evolve from 'low fat' to 'type of fat' with due consideration to energy density. In addition, several foods must be targeted and specific recommendations on the type and amount of foods are required to more effectively reduce CVD.

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