Towards sensible eating, how far do we have to go?

Every day we are bombarded with media headlines and news stories about obesity, physical inactivity, faddy diets and 'miracle' foods. But how far do we need to go before we adopt a balanced approach to eating? And what is our current nutritional status: is it possible to be overweight yet still have suboptimal nutritional status, particularly with respect to vitamins and minerals?

Information about our current dietary intakes and nutritional status can be obtained from government-funded surveys such as the *National Diet and Nutrition Survey* (NDNS).[1] The NDNS, last conducted in 2000–2001, gathers accurate nutrition information about the dietary habits and nutritional status of a representative sample of the UK population (in this instance adults aged 19–64 years). Surveys such as the NDNS reveal that despite the fact that 24% of women and 10% of men are currently dieting to lose weight, 42% of men and 32% of women are classified as overweight (body mass index [BMI] 25–30 kg/m^2) and a further 25% of men and 20% of women are obese (BMI >30).[1,2] Not only do these trends apply to adults, but they also apply to children: according to the Chief Medical Officer's Annual Report for 2002, 8.5% of six-year-olds and 15% of 15-year-olds are obese.[3] In short, as a nation we are becoming heavier.

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The modern paradox

To many this seems difficult to reconcile. Dietary intake data from the NDNS[1] indicate that average energy intakes (including alcohol) for adult men and women are 2,312 kcal/day and 1,632 kcal/day respectively. This is much lower than the estimated average energy requirements of 2,550 kcal/day and 1,940 kcal/day respectively. Under-reporting (a failure of respondents to report all of the food they consume) is a problem encountered with all dietary surveys but it is unlikely to account for all of the discrepancies observed between self-reported dietary intakes and measured body weight. This paradox is most likely attributable to increasingly sedentary lifestyles,[4] although questions are also being raised about the suitability of the existing recommendations for population energy intakes. Do these figures (first published in 1991) still reflect the energy requirements of the general population, and our current levels of physical activity?

We are all encouraged to eat a balanced diet, to eat plenty of foods rich in starch and fibre and fruit and vegetables, and to try and cut down on the foods with a high fat content (particularly saturates), salt and sugar. The NDNS revealed a decrease in the consumption of some starchy foods (e.g. potatoes), while intakes of fruit and vegetables increased to just under three portions/day, but this is still two portions less than the recommended 'five-a-day' we should be eating. Intakes of oily fish also remained low, with average intakes at a third of a serving per week (current guidance by the UK Food Standards Agency recommends that girls and women of child-bearing age, and pregnant women, consume up to two portions of oily fish per week, while other women, boys and men eat up to four portions per week).[5]

Population fat intake

On a positive note, population intakes of both total fat and saturates have decreased over the last few years: average energy intakes from fat are approximately 35% of food energy (population target is to reduce this to 35%) while intakes from saturates are approximately 13% of food energy (population target is to reduce this to 11%). However, intakes of added sugars (at 12.6% of food energy) and salt (at 9.5 g/day) still exceed recommended intakes of 11% food energy and 6 g/day respectively, while fibre intakes are still below the population target of 18 g/day. Therefore, some positive steps have been made towards achieving population dietary targets

(particularly for total fat and saturates); however, a closer analysis of the NDNS dataset provides us with a more complete view of current nutritional intakes.

Micronutrient deficiency

For most micronutrients, Lower Reference Nutrient Intake (LRNI) thresholds have been set. Intakes below this level are unlikely to be meeting the needs of most of the population. From the NDNS dataset, low intakes (i.e. intakes below the LRNI), particularly for the youngest age groups, were reported for vitamin A, riboflavin (vitamin B2), iron, calcium, magnesium and zinc. Some micronutrients were of particular concern: for example, approximately 40% of women aged 19–34 years had iron intakes below the LRNI and unlikely to meet their needs.[1] In addition, although most women had folate intakes above the LRNI, the diet (food plus supplements) of most women of child-bearing age failed to reach even 400 µg/day (the additional amount on top of normal dietary intakes recommended to reduce the risk of neural tube defects). But inadequate intakes were also observed in men: nearly 20% of those aged 19–24 years had intakes of vitamin A (16%), magnesium (17%) and potassium (18%) below the LRNI. These three micronutrients are necessary for normal body function. Potassium, in particular, has been shown to have a beneficial effect against high blood pressure. Finally, status of vitamin D (which is vital for healthy teeth and bones and which aids calcium absorption) was low, particularly among those aged 19–24 years (24% of men and 28% of women). Therefore, as health professionals we need not only to focus on the quantity of foods eaten but also the quality.

Strategies are needed to boost micronutrient status (particularly among younger age groups). Increasing fruit and vegetable intake will improve intakes of folate, carotenoids, potassium and fibre, but other dietary changes are needed too, as a number of the problem nutrients are not found in large amounts in these foods (e.g. iron, calcium and zinc). An increased intake of cereals and cereal products (e.g. fortified breakfast cereals consumed with low-fat milk) would further help low micronutrient intakes, while the milk would provide extra calcium, riboflavin, vitamin B12 and vitamin D. Women in particular, would also benefit from increased intakes of lean meat to boost iron and zinc status.

The future

Unified strategies are needed to help individuals make necessary dietary improvements: the government, health professionals, educators, the food industry and the media need to work together to ensure that healthy eating messages are clear, consistent and tailored to suit the needs of different age groups. These messages also need to take account of alcohol intake and encourage an increase in physical activity levels. Although current initiatives by the food industry to lower the sodium (salt) and sugar content of foods (particularly processed foods) is likely to help reduce population dietary intakes of these nutrients, clearer nutritional labelling (by retailers, caterers and the food industry) is also needed to help consumers make the right choice. Finally, the importance of economic and physical access to a varied and healthy diet must also be stressed.

Conflict of interest

None declared.

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