Helping toddlers to eat well

Young children have a natural fear of new foods (neophobia) and the bitter taste of some vegetables may make them unpopular with this age group. Timing seems to be important in getting toddlers to eat vegetables – earlier may be better. A recent study (Caton et al. 2014), looking at increasing vegetable consumption in children found that the intervention was significantly more effective in young children below 2 years than those over 2 years (when fussy eating often starts). Repeated exposure also seems to be important – studies show that children start to accept the taste of a new vegetable after it is offered about 8-10 times on average. Giving new vegetables alongside foods they already like may also help children to accept them.

To support parents in providing a healthy diet for toddlers, BNF, with the help of experts in the field and focus groups with mums and health visitors, has developed a food-based, healthy eating guide for 1-3 year olds. The guide is based on the number of portions from the four main food groups that are needed for toddlers each day: five portions of fruit and vegetables, five portions of starchy foods, about 3 portions of dairy foods and about two portions of non-dairy protein-rich foods (3 if the child is vegetarian), represented by ‘5532’. The guide also illustrates appropriate portion sizes for different food types.

For more information go to: www.nutrition.org.uk/healthyliving/toddlers

Dairy and heart health

As a source of saturated fat, dairy products are often targeted in health advice. A review exploring the body of evidence on the association of dairy consumption and cardiovascular disease (Markey et al. Nutrition Bulletin June 2014) acknowledges that milk is a complex food and that simply focusing on the link between saturated fat and cardiovascular disease (CVD) risk overlooks other beneficial nutrients it contains. Evidence suggests milk intake may be associated with lower risk, Continued on page 3
Saturated fat confusion

The authors of a recent systematic review and meta-analysis (Chowdury et al. 2014) on the association between fatty acids and risk of coronary heart disease (CHD) suggested their findings did not support current UK nutritional guidelines to reduce intake of saturated fat to promote cardiovascular health. This was widely reported in the news with headlines like ‘Saturated fat ISN’T bad for your heart’ (Daily Mirror) and ‘No link found between saturated fat and heart disease’ (The Telegraph).

The review pooled the results of 49 prospective cohort and 27 intervention studies that looked at the association between dietary fat and CHD. The meta-analysis showed no significant associations between total saturated fat intake and CHD risk. The results were consistent both in the cohort studies that looked at dietary fat intake and those that looked at circulating biomarkers in the blood. These findings were interpreted to suggest that a reduction in saturated fat intake will not have a cardioprotective effect. This review had a number of limitations. For example, the designs of the studies being compared were variable, with likely confounding by other lifestyle and dietary factors and inaccuracies in assessing dietary intakes. Furthermore, levels of fat consumption being compared between groups of subjects differed considerably and some of the studies looked at people who already had CHD, so results may not apply to healthy populations. Whilst this review is interesting, it does not undermine current guidelines, particularly in the context of the large body of evidence that suggests reducing saturated fat and replacing it partially with unsaturated fat does offer a benefit to heart health. The relationship between fat and heart disease may be a complex issue but saturated fat intake is still too high in all age groups. Saturated fat reduction remains a public health priority in the UK and a key pledge in the Department of Health’s Responsibility Deal.

BNF has recently published a Facts Behind the Headlines article in Nutrition Bulletin, titled Questioning current recommendations on fatty acids and their role in heart health.


POLICY REPORT

SACN draft report on carbohydrate and health

In June 2014, the Scientific Advisory Committee on Nutrition (SACN) published its draft report on Carbohydrates and Health for public consultation (available at www.sacn.gov.uk). Systematic reviews of the evidence were performed to understand the role of dietary carbohydrates in cardiometabolic health (including cardiovascular disease, obesity, diabetes and hypertension) and colorectal and oral health. Earlier in the year, dietary surveys showed that compared to the current recommendations of ≤10% of total energy, free sugars intake in children and adults is too high (11.2 – 15.4% energy). Additionally, UK fibre intake is too low, 1.37-1.39g/d compared to the 18g/d (NSP) fibre (equivalent to 24g AOAC) recommendation in adults. SACN has proposed changes to the carbohydrate dietary reference values for all adults and children aged 2 years and upwards for free sugars (to be reduced to a population average of 5% dietary energy) and dietary fibre (to be increased to 30g/d AOAC). The final report is due to be published in early 2015 after which UK Health Departments will consider updating the current recommendations, which in the meantime remain unchanged.

BNF has responded to the consultation on the draft report and summarised its findings.

Find BNF’s summary at http://www.nutrition.org.uk/nutritioninthenews/new-reports/sacn-cho
**BNF INTERVIEW**

**Tom Sanders, Head of Diabetes & Nutritional Sciences Division and Professor of Nutrition & Dietetics, King’s College London.**

We are delighted to have Professor Tom Sanders providing the first in a series of interviews with distinguished professionals who have made major contributions to nutrition science and policy.

**BNF: How did you first become interested in nutrition and its relationship with health?**

**Tom:** At school I became fascinated by the dual challenges of undernutrition in developing countries and overnutrition/unbalanced nutrition in causing cardiovascular disease and cancer in developed countries. I chose to study Nutrition at Queen Elizabeth College having been inspired by Prof John Yudkin. On graduation in 1971, I went on voluntary service overseas with UNICEF in Indonesia for two years to get first-hand experience of working in development. It made me decide I wanted to do research in nutrition.

I was fortunate to get this opportunity under the supervision of Dr Frey Ellis at Kingston Hospital and Prof John Dickerson (University of Surrey). My PhD thesis was on omega-3 fatty acid metabolism and the health of vegans compared with omnivores. I returned to Queen Elizabeth College in 1977 as a Rank Prize Funds Fellow, which Prof Yudkin helped me secure, to work with Prof Don Naismith. I have effectively remained in the same department since and succeeded Prof Naismith on his retirement in 1993. I still retain my links with Indonesia/Malaysia and interest in omega-3 fatty acids.

**BNF: What aspect of your research or nutrition work has been the most personally memorable?**

**Tom:** In 1978-79, we showed that bleeding time was increased and triglycerides lowered by high intakes of cod liver oil. I also took part in later studies on omega-3 fatty acids and stank of fish oil!

**BNF: What do you think lies for nutrition in the future?**

**Tom:** As I get older I get more cynical. First and foremost, BNF does an excellent job of making nutrition science accessible to a wide audience.

**BNF: How do you feel organisations like BNF contribute in making nutrition science accessible to a wide audience?**

**Tom:** Like BNF contribute in making nutrition science accessible to younger audiences in schools and universities, which helps inspire an interest in food and nutrition.

**EDUCATION**

**Cooking and nutrition in schools**

In September 2014, cooking and nutrition became compulsory for all schools following the National Curriculum in England, for children aged 5-14. Pupils now learn about where food comes from, how to cook simple dishes and the importance of healthy eating. To support this important curriculum change, BNF has been working to support schools by:

- producing exemplar schemes of work, lesson plans and resources for Years 1 to 9;
- running teacher training sessions and eSeminars on the new curriculum for primary and secondary schools.

In addition, BNF has worked with Public Health England, FSA Northern Ireland, FSA Scotland and the Welsh Government to update the Core Competences for 5 to 16 year olds. The competences are a framework of essential skills and knowledge around diet, consumer awareness, cooking, food safety and active lifestyles. The Core Competences help teachers ‘unpack’ the curriculum. They also support future curriculum and qualification development and guide those creating resources for schools.

Access resources and training materials from Food – a fact of life, BNF’s education website: www.foodafactoflife.org.uk

To download the competences, go to: www.nutrition.org.uk/foodinschools/competences/competences

**CONTINUED FROM PAGE 1**

or show no association with heart disease but the evidence is less clear for cheese and butter. Further research is needed to investigate the impact of different dairy products on CVD development. The review also highlights the need for more well-controlled human trials that provide a more holistic evaluation of the consumption of fat-reduced and fat-modified dairy products on CVD risk factors, including vascular function, arterial stiffness, and markers of inflammation. It also discusses manipulating the fatty acid profile of milk as a potential dietary strategy for lowering saturated fat intake at a population level.


**BNF: If you were in charge of reducing obesity in the UK, what would be the 3 most important measures you would put in place?**

**Tom:**

1. Encourage the consumption of water over alcoholic and sugar containing beverages.
2. Discourage/outlaw marketing practices that entice people to overconsume (especially for confectionary, biscuits, cakes and crisps but also large portions of food consumed outside the home).
3. Improve the built environment, making it easier and more pleasant to walk and cycle and not use the car.

**BNF: What do you think lies for nutrition in the future?**

**Tom:** As I get older I get more cynical. Instead, much effort is wasted searching for magic remedies and on personalised nutrition.

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**NUTRITION REVIEWS**

Did you know that Department of Health’s dietary advice has recently changed to include potatoes with skins along with wholegrains as a source of fibre?

This advice now states “Starchy foods such as potatoes, bread, cereals, rice and pasta should make up about a third of the food you eat. Where you can, choose wholegrain varieties, or eat potatoes with their skins on for more fibre.”

POTATOES New nutritional insights

Potatoes can be described as having low energy density (amount of energy per gram of food). Most vegetables, fruits, roots and tubers like potatoes have low energy density.

On the other hand, potatoes can also be described as nutrient dense. Most commonly, nutrient density is defined as a ratio of the nutrient content to the total energy content (nutrients per calorie). But it is also important to consider the nutrient density per penny. This helps to identify foods that give the best nutritional value for money.

A recent US study combined measures of affordability, nutrient density and acceptability of frequently consumed vegetables and found potatoes, beans and carrots to have the highest scores (Drewnowski et al. 2013).

Energy and nutrient density

Nutrient composition of potatoes, vegetables and starchy foods (DH 2013, FSA 2002) *ADAC obtained using NSP x conversion factor 1.33