

TOP Nutrition Newsletter

Volume 11 Number 2 February 2008

[The intake of saturated fat and dietary fibre: a possible indicator of diet quality.](#)

[Br J Nutr.](#) 2008 Jan 21::1-9

The aim of the present study was to assess if a simple dietary quality index (SDQI) is a useful indicator for nutritional quality in the Danish diet. Data from the Danish National Dietary Survey 2000-2 for adults (n 3151; age 18-75 years) were used to construct an SDQI based on the intake of dietary fibre and saturated fat. The SDQI was used to rank the individuals into three subgroups: the 25 % closest in meeting the recommended intakes of saturated fat and dietary fibre (compliers), the 25 % furthest away (non-compliers) and the 50 % in between (intermediates). Significant differences in food and nutrient intake between these subgroups were identified by intakes of food groups and intakes of nutrients followed by non-parametric tests. Compared with the Nordic Nutrition Recommendations 2004 and the Danish Dietary Guidelines 2005, compliers had a significantly better nutrient profile than intermediates and non-compliers, as the diet of compliers contained more whole-grain cereals, fruits, vegetables and fish, and more frequently low-fat dairy products, lean meats and boiled potatoes. The diet of all subgroups, especially non-compliers, had a high content of nutrient-poor, energy-dense foods, for example, salty snacks, confectionery, and beverages, for example, soft drinks and alcohol. The SDQI is a simple and useful tool to characterise the diet quality of Danish adults.

[Tea or coffee? A case study on evidence for dietary advice.](#)

[Public Health Nutr.](#) 2008 Jan 16::1-10

The present paper explores the level of evidence required to justify giving dietary advice to the public. There are important practical differences between the development of public health nutrition guidelines and guidelines for clinical practice. While the gold standard for evidence for clinical practice guidelines is a meta-analysis of a number of randomised controlled trials, this is often unrealistic and sometimes unethical for the evaluation of public health nutrition interventions. Hence, epidemiological studies make up the bulk of evidence for nutrition guidelines. Tea and coffee are an interesting case study in relation to this issue. They are two of the most commonly consumed beverages worldwide, yet there is little dietary advice on their use. The evidence for a relationship between coffee or tea consumption and several diseases is discussed. The available studies, predominantly epidemiological, together with animal and in vitro studies, indicate that coffee and tea are both safe beverages. However, tea is the healthier option because it has a possible role in the prevention of several cancers and CVD. While the evidence for such relationships is not strong, the public will continue to drink both tea and coffee, and will continue to ask nutritionists to make recommendations. It is therefore argued that advice should be given on the best available data, as waiting for complete data to become available could have severe consequences for public health.

[The roles of long-chain polyunsaturated fatty acids in pregnancy, lactation and infancy: review of current knowledge and consensus recommendations.](#)

[J Perinat Med.](#) 2008;36(1):5-14.

Abstract This paper reviews current knowledge on the role of the long-chain polyunsaturated fatty acids (LC-PUFA), docosahexaenoic acid (DHA, C22:6n-3) and arachidonic acid (AA, 20:4n-6), in maternal and term infant nutrition as well as infant development. Consensus recommendations and practice guidelines for health-care providers supported by the World Association of Perinatal Medicine, the Early Nutrition Academy, and the Child Health Foundation are provided. The fetus and neonate should receive LC-PUFA in amounts sufficient to support

optimal visual and cognitive development. Moreover, the consumption of oils rich in n-3 LC-PUFA during pregnancy reduces the risk for early premature birth. Pregnant and lactating women should aim to achieve an average daily intake of at least 200 mg DHA. For healthy term infants, we recommend and fully endorse breastfeeding, which supplies preformed LC-PUFA, as the preferred method of feeding. When breastfeeding is not possible, we recommend use of an infant formula providing DHA at levels between 0.2 and 0.5 weight percent of total fat, and with the minimum amount of AA equivalent to the contents of DHA. Dietary LC-PUFA supply should continue after the first six months of life, but currently there is not sufficient information for quantitative recommendations.

Modified MyPyramid for Older Adults.

[J Nutr.](#) 2008 Jan;138(1):5-11.

In 1999 we proposed a Modified Food Guide Pyramid for adults aged 70+ y. It has been extensively used in a variety of settings and formats to highlight the unique dietary challenges of older adults. We now propose a Modified MyPyramid for Older Adults in a format consistent with the MyPyramid graphic. It is not intended to substitute for MyPyramid, which is a multifunctional Internet-based program allowing for the calculation of individualized food-based dietary guidance and providing supplemental information on food choices and preparation. Pedagogic issues related to computer availability, Web access, and Internet literacy of older adults suggests a graphic version of MyPyramid is needed. Emphasized are whole grains and variety within the grains group; variety and nutrient density, with specific emphasis on different forms particularly suited to older adults' needs (e.g. frozen) in the vegetables and fruits groups; low-fat and non-fat forms of dairy products including reduced lactose alternatives in the milk group; low saturated fat and trans fat choices in the oils group; and low saturated fat and vegetable choices in the meat and beans group. Underlying themes stress nutrient- and fiber-rich foods within each group and food sources of nutrients rather than supplements. Fluid and physical activity icons serve as the foundation of MyPyramid for Older Adults. A flag to maintain an awareness of the potential need to consider supplemental forms of calcium, and vitamins D and B-12 is placed at the top of the pyramid. Discussed are newer concerns about potential overnutrition in the current food landscape available to older adults.

Behavior therapy for nonalcoholic fatty liver disease: The need for a multidisciplinary approach.

[Hepatology.](#) 2007 Dec 20

Nonalcoholic fatty liver disease (NAFLD) is systematically associated with insulin resistance and the metabolic syndrome, where behavior therapy remains the primary treatment, simultaneously addressing all the clinical and biochemical defects. However, very few studies have tested the effectiveness of intensive behavior therapy in NAFLD, aimed at lifestyle modifications to produce stable weight loss by reduced calorie intake and increased physical activity. Searching the literature for studies testing weight loss and lifestyle modifications for the treatment of NAFLD, only 14 reports were traced where the entry assessment satisfied well-defined criteria. The final effectiveness was based on hard histological outcomes in 5 cases. All but 1 were pilot, uncontrolled studies or limited case series, and in general the details of treatment were scanty. In only 3 cases treatment was carried out along the guidelines of behavior treatment to reduce excess nutrition and increase exercise; in these cases, a remarkable effect on weight loss and an improvement in liver histology were reported. The principles of behavior therapy are presented in detail, to help physicians change their prescriptive attitude into a more empowerment-based approach. A brief section is also included on the practical aspects and public policies to be implemented at societal level to obtain the maximum effects in lifestyle changes. There is a need for multidisciplinary teams including dietitians, psychologists, and physical activity supervisors caring for patients with NAFLD. Alternatively, general practitioners and physicians working in gastrointestinal units should limit their intervention to engage patients with NAFLD before referral to specialized teams set up for the treatment of diabetes and obesity.

Nutritional characterization and measurement of dietary carbohydrates.

Eur J Clin Nutr. 2007 Dec;61 Suppl 1:S19-39.

Dietary carbohydrate characterization should reflect relevant nutritional and functional attributes, and be measured as chemically identified components. A nutritional classification based on these principles is presented, with a main grouping into 'available carbohydrates', which are digested and absorbed in the small intestine providing carbohydrates for metabolism, and 'resistant carbohydrates', which resist digestion in the small intestine or are poorly absorbed/metabolized. For the available carbohydrates, the chemical division into the starch and total sugars categories does not adequately reflect the physiological or nutritional attributes of foods. Characterizing carbohydrate release from starchy foods provides insight into some of the inherent mechanisms responsible for the varied metabolic effects. Also, a pragmatic approach to product signposting consistent with guidelines to limit free (or added) sugars is proposed. The most prominent of the resistant carbohydrates are the non-starch polysaccharides (NSP) from plant cell walls, which are characteristic of the largely unrefined plant foods that provide the evidence base for the definition and measurement of dietary fibre as 'intrinsic plant cell-wall polysaccharides' as proposed in conjunction with this paper and endorsed by the scientific update. Indigestibility in the small intestine was not considered to be an adequate basis for the definition of dietary fibre, as there is insufficient evidence to establish public health policy by this approach and concerns have been raised about potential detrimental effects of high intakes of rapidly fermentable resistant carbohydrates. Functional ingredients such as resistant starch and resistant oligosaccharides should therefore be researched and managed separately from dietary fibre, using specific health or function claims where appropriate. This structured approach to the characterization of nutritionally relevant features of dietary carbohydrates provides the basis for establishing population reference intakes, nutrition claims and food labelling that will assist the consumer with properly informed dietary choices.

Impact of a new guideline for central venous catheter care on sepsis in total parenteral nutrition: experience in Ramathibodi Hospital.

J Med Assoc Thai. 2007 Oct;90(10):2030-8.

BACKGROUND: Total parenteral nutrition (TPN) is the essential treatment for hospitalized patients in whom normal enteral nutrition is inadequate or not feasible. However, TPN-related sepsis is the most serious and fatal complication of the treatment and the catheter is the most common cause of infection. Therefore, the Nutrition Support team in Ramathibodi Hospital has developed a new guideline for central venous catheter care for TPN patients and has used it for at least a year. **OBJECTIVE:** Survey the current incidence of TPN-related sepsis in the hospital, the predisposing factors of the TPN-related sepsis, and the pathogenic organisms of the sepsis. **MATERIAL AND METHOD:** Between July 1999 and February 2000, 52 TPN treatments (catheter count) in 40 surgical and medical patients were prospectively recruited. Microbiological studies were done in all cases of TPN-related sepsis. **RESULTS:** The incidence of TPN-related sepsis was 15% per catheter or 12.64/1000 catheter-days. Although no statistically significant predisposing factors were found for the sepsis, some factors such as postoperative TPN and short interval (< or = 2 days) for TPN line change (OR = 3.33, 95% CI = 0.33-30.34) showed a higher risk for TPN-related sepsis. The most common pathogenic organisms were Coagulase-negative staphylococci, *Candida albicans*, and gram-negative bacteria. The organisms were found from hemoculture in septic patients and were well correlated with those found in the catheter line. Thus, the significant pathogenic role of Coagulase-negative staphylococci emphasizes the importance of aseptic technique during catheterization. **CONCLUSION:** The Ramathibodi guideline rendered support for a good policy to improve and standardize the TPN treatment. Along with a practical guideline, the well-trained and highly responsible personnel would also be crucial to avoid the infectious complications.

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