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## The diet of the child – the health of the grown-up? Summary of discussions

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The reports by Berthold Koletzko, Lars Åke Hanson, Agnes Wold and Olle Hernell in this issue are based on presentations at a conference entitled "The diet of the child – the health of the grownup?", arranged by the Swedish National Committee of Nutrition Research of the Royal Swedish Academy of Sciences, the Swedish Society of Clinical Nutrition of the Swedish Society of Medicine and Swedish Nutrition Foundation SNF, on 16 November 2005. The importance of early feeding for obesity, infections and allergy was in focus. The final discussions, chaired by Olle Hernell, between a panel of speakers and with participation from the audience had a focus on recommendations regarding early feeding, especially the importance of breast-feeding. The scientific evidence base, ethical aspects and practical implications were debated.

Feeding of the young child and its implications for future health have been in focus since the World Health Organization (WHO) launched its "Global strategy on infant and young child feeding" in 2001. The WHO recommendation on infant feeding can be summarized as exclusive breast-feeding for 6 months and thereafter breast-feeding and adequate complementary feeding up to 2 years or beyond.

In 2003 the Swedish authorities adapted the WHO recommendation in 2003 as follows: "During the first period of life breast milk is the best nutrition. For most infants exclusive breastfeeding during the first six months is sufficient. For nutritional reasons breastfeeding should be complemented by other food items from six months, but it is an advantage if breast milk could continue to be the base of the diet during the first year or longer." This is recommended providing it is possible for the mother and her infant. The earlier recommendation proposed introduction of other food at 4–6 months. So, the slight change in relation to the earlier recommendations is 6 months' exclusive breastfeeding, in line with the WHO recommendations.

Wulf Becker (National Food Administration, Uppsala, Sweden) summarized why we have our nutrition recommendations and the criteria of the recommendations. Criteria are based on different types of studies: intervention studies, including randomized controlled trials, epidemiological studies and population studies. Most studies have been carried out on adults and then extrapolated to infants and children, as it is often not possible to conduct studies on children. For the young infant, breast milk is regarded as having the ideal nutrient content.

Bengt Björkstén [National Institute of Environmental Medicine (IMM), Karolinska Institutet, Stockholm, Sweden] summarized the reasons why we give advice at all, and the principles behind this. Prevention of illness and promotion of health are the main reasons. The aims of prevention should be to reduce the prevalence of illness, reduce injuries, reduce suffering, increase quality of life, and increase possibilities to make individual informed choices and to reduce costs for the community. Advice should have the intended effect, be reasonable, be possible to accomplish, be cost-effective and have well-defined groups to be informed. Ethical considerations should include that the advice must not cause any damage, the right to make your own decisions, efficiency of measures and justice, not to discriminate and to distribute the resources in a fair way. WHO has defined principles of prevention as follows: (i) the problem should be common and have serious consequences; (ii) the causes must be known; (ii) measures taken must be effective, safe and acceptable; (ii) there must exist economic resources to accomplish the recommendations; and (ii) health-economic consequences must be evaluated.

Mainly from the perspective of earlier advice and recommendations aiming at preventing allergy, it was questioned whether advice should be given unless it has a very solid scientific background and a thorough analysis of positive and possible negative effects. Apparently "risk-free" advice is not always harmless, owing to possible psychological effects on the mother. One reason for recommending exclusive breast-feeding has been the perception that breastfeeding would protect against allergy, but the panel agreed that there is no solid evidence for such an effect of breast-feeding.

Another related issue regards advice to prevent coeliac disease. The previous recommendation to postpone the introduction of gluten from 4 to 6 months had good intentions and was based on the knowledge at that time, as were the adjustments of the milk to cereal ratio in "välling" (milk cereal drink, MCD) to decrease the protein content which, however, increased the amount of gluten. Sweden played an active role in WHO when the recommendation of 6 months' exclusive breast-feeding was launched. The adjustment to the present advice, implying successive gluten introduction during breast-feeding, is based on new research. Ongoing further research will reveal whether such advice is optimal not only to postpone, but also to prevent coeliac disease later in life.

We must be aware of the temporary quality of advice. When the recommendations have to be changed, sometimes radically, the information and debate often go wrong. Do we as scientists act wrongly? When are things going wrong? Whose fault is it? Who owns the question? What is the role of the mass media? The media are often blamed for giving disproportionate advice on subjects regarding food and diet, but scientists and authorities have the primary responsibility to provide well-founded and balanced information.

An ongoing prospective European Union project is looking into the importance of early nutrition and growth. There will be a follow-up at the age of 18 years. The family diet will soon be involved in this project. There is increasing evidence for a strong relationship between early nutrition and disease risks later in life. Early metabolic programming during pregnancy as well as in early life is an important field for research and new studies are required. There is increasing evidence that the nutritional status of the pregnant woman has an impact on the lifelong health of the offspring.

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