



The Association
of UK Dietitians

Policy Statement

Complementary Feeding: Introduction of Solid Foods to an Infants Diet

Background

This BDA Policy Statement provides a framework for the provision of consistent advice on complementary feeding (weaning) within Department of Health (DH) Guidelines¹. It provides a brief overview of emerging evidence and current debate, and includes recommendations for weaning of both the healthy and the preterm infant.

Weaning is the process of expanding the diet to include foods and drinks other than breast milk or infant formula. The timing of the introduction of solid food to an infant's diet is important for nutritional and developmental reasons². The World Health Organisation (WHO) recommends that the terms 'weaning' and 'weaning foods' should be replaced by the term 'complementary feeding' because 'weaning' is traditionally used to describe curtailment of breastfeeding³.

Government policy in the UK has consistently supported breastfeeding as important in the promotion of maternal and infant health. In 2003 the UK Department of Health adopted the 2001 WHO's recommendations⁴ that exclusive breastfeeding for six months confers several benefits on the infant and the mother, and complementary foods should be introduced at 6 months of age (26 weeks) while continuing to breastfeed. The DH Guidelines recommend the introduction of solid food 'at around six months'.

Health Policy has practical implications for those populations it is aimed at. Parents need practical and accurate information so that they can, together with the Health Professionals who are advising them, make the appropriate choice for their infant in the context of their own particular circumstances. However, many Health Professionals themselves have difficulty in interpreting and promoting the DH Guidelines in order to achieve the six-month target, whilst taking into account the wide variation in individual development. Some babies may be ready for solid food before, and some after, the age of 6 months. The need for Health Professionals to balance the requirements of a population-based guideline with the needs of the individual has led to variability in their interpretation by Health Professionals.

Key findings from the 2005 Infant Feeding Survey showed that across the UK, only 2% of mothers followed the advice to delay introduction of solids until around 6 months. In both the 2005⁵ and 2010⁶ Infant Feeding Surveys, the time at which mothers introduced solids, appeared largely to be affected by the professional support and guidance received. It was noted that the inappropriately early introduction of solids was associated with receipt of advice from informal sources. In 2010, a significant move was seen towards the later introduction of solid foods, with only 30% of mothers introducing solid food by four months, in

comparison with 2005 when 51% of mothers had introduced solid foods by then. While this showed that feeding practices are changing, the survey demonstrated that, in 2010, the UK Health Department guidelines were not being followed with three-quarters of mothers (75%) having introduced solids by the time their baby was five months old.

The Scientific Advisory Committee on Nutrition (SACN) Subgroup on Maternal and Child Nutrition, is carrying out a review of the scientific evidence underpinning the UK infant and young child feeding policy⁷. The review will begin by appraising current recommendations for infants and young children in the UK, and will consider the need for updating these. This work will take several years to complete, and it is expected that this will be completed in 2015. This BDA Policy Statement will be reviewed once the SACN Review has been published.

Recommendations

The British Dietetic Association (BDA) recommends that:

1. Exclusive breastfeeding from birth, until the introduction of solid foods, is the optimal way to feed young infants. Breastfeeding mothers need appropriate nutritional advice, including advice on Vitamin D supplementation, to ensure that their breast milk provides good nutrition for their babies. Breastfeeding should continue throughout complementary feeding.
2. The introduction of solid food should commence 'at around six months of age' in line with DH guidance. The DH guidelines acknowledge that babies' individual development varies widely, and that some babies may be ready for solid food before, or after, this time. The introduction of solid food should commence no later than six months (26 weeks) of age, but not before four months (17 weeks).
3. Pre-term infants require special consideration and advice should be sought from the dietitian and medical team that are caring for them. BLISS recommends⁸ that five to eight months after their actual birth date is likely to be the best time to introduce complementary feeding. They state that that few babies are ready to wean at five months, or will need to wait as long as eight months. The majority of pre-term infants may benefit from delaying the introduction of complementary food until after 3 months from their estimated date of delivery (EDD) to allow sufficient motor development to have taken place.
4. Each infant should be managed individually, as they develop at different rates. Developmental signs of readiness for solid food, together with parental opinion, should be taken into consideration when advising on the ideal age to begin complementary feeding. There is little evidence that complementary feeding before 6 months is harmful and there is some emerging evidence to support the introduction of solid food before 6 months whilst breastfeeding, which may be beneficial for some infants.
5. Whatever feeding decisions parents make, (breastfeeding or formula feeding, early or later introduction of complementary feeding) parents need to be supported and given appropriate advice to ensure that all infants are fed safely and are receiving a nutritionally adequate diet. Where mothers choose to introduce solid foods before six months, they should be encouraged to follow existing guidance on appropriate types and amounts of first foods.

6. The DH recommends that all children aged from six months onwards should be given a supplement that contains vitamins A, C and D, such as Healthy Start Vitamins unless they are drinking 500ml of infant formula a day (infant formula has vitamins added to it). Young children may continue to be given vitamin supplements until they are 5 years old. This is especially important when they are learning to eat a variety of foods and if they are fussy eaters. For breastfed babies, whose mothers did not take vitamin D supplements throughout pregnancy, Health Visitors may advise giving vitamin drops containing vitamin D from the age of one month⁹.

Discussion

Government Policy

Government policy in the UK has consistently supported breastfeeding as the best way of ensuring a healthy start for infants. In 1974 a Committee on Medical Aspects of Food and Nutrition Policy (COMA) Working Party¹⁰ recommended that:

'Breastfeeding is the best form of nutrition for infants. Mothers should be supported and encouraged in breastfeeding for at least four months and may choose to continue as the weaning diet becomes increasingly varied. The majority of infants should not be given solid food before the age of 4 months and a mixed diet should be offered by the age of six months'

Infant feeding recommendations in the UK were broadly in line with (WHO) 1990 Innocenti Declaration that all infants should be fed exclusively on breast milk from birth up to 4-6 months of age. From 1994 the age range of 4 to 6 months was considered the ideal age to begin complementary feeding for full term infants.

In 2001, following a commissioned systematic review of the published scientific literature on the optimal duration of exclusive breastfeeding, WHO revised its guidance to recommend exclusive breastfeeding for the first six months of an infant's life. WHO recommended that exclusive breastfeeding should continue until 6 months of age and complementary foods should be introduced at six months of age (26 weeks) while continuing to breastfeed⁴. This would protect infants from the morbidity and mortality which is associated with gastroenteritis. Gastroenteritis is common in developing countries and is associated with the introduction of formula and complementary foods⁴.

The 2001, UK Scientific Advisory Committee on Nutrition (SACN) examined the evidence stating that: 'There is sufficient scientific evidence that exclusive breastfeeding for 6 months is nutritionally adequate'. The Committee also acknowledged the need for flexibility in that mothers may introduce complementary foods earlier than this for personal, social and economic reasons but it stated these should not be given before the end of 4 completed months, or 17 weeks¹¹. From 2003, UK Health Departments adopted the 2001 WHO guidelines⁴

Key findings from the 2005 Infant Feeding Survey showed that across the UK, only 2% of mothers followed the advice to delay introduction of solids until around six months. The time at which mothers introduced solids appeared largely to be affected by professional support and guidance received and it was noted that inappropriately early introduction of solids was associated with receipt of advice from informal sources⁵.

The 2010 Infant Feeding Survey⁶ showed that, whilst mothers were breastfeeding, very few mothers were following the UK health departments' recommendation to exclusively

breastfeed until around the age of six months. In 2010 there was a marked trend towards mothers delaying the introduction of solid foods and whilst feeding practices were seen to be changing, most mothers in 2010 were not following the UK health department guidelines since most (75%), had introduced solids by the time their babies were five months old. The 37% of mothers who introduced solids after 6 months stated that their baby was able to sit up and hold food in their hand; whereas early introduction of solids by mothers by 3 months was more likely to be based on a perception that their baby was not satisfied with milk feeds. Later introduction of solids after 6 months was generally influenced by formal information sources, such as a health professional or written information, or recognition of signs that the baby was ready for solids.

Health visitors were still the principal source of information in 2010, but fewer mothers had received information from them than in 2005. Mothers also relied more on written materials than they did in 2005 using sources such as books/leaflets/magazines and the internet. Only a small proportion of mothers mentioned Sure Start in 2005, in the 2010 survey, 40% of mothers had received information from Sure Start, children's centres or children's healthcare clinics.

A 2012 study suggests that first time mothers have a good understanding of complementary feeding guidelines but are confused by multiple sources of advice, some of which is conflicting. Informal sources of weaning advice appeared to be most influential in younger mothers and those of lower educational attainment, and result in earlier weaning¹².

ESPGHAN

Many European countries have adopted the WHO recommendation for the duration of exclusive breast-feeding for 6 months, whilst other countries recommend the introduction of complementary feeding between 4 and 6 months. After a review of the evidence focusing on healthy infants in Europe, the 2008 European Society for Paediatric Gastroenterology, Hepatology and Nutrition (ESPGHAN) Committee on Nutrition concluded that exclusive or full breast-feeding for about 6 months is a desirable goal and that complementary feeding should not be introduced before 17 weeks and not later than 26 weeks¹³.

European Union (EU) labelling Legislation and European Safety Agency (EFSA)

Under EU labelling regulations, commercially produced complementary foods are labelled as being suitable for infants from 4 months of age. The European Commission recognised the inconsistency between the EU labelling legislation and the relevant Codex Standard, and asked EFSA to deliver a scientific opinion on the appropriate age for the introduction of complementary food for infants in the EU. The focus of the review were the factors which determined the appropriate age for the introduction of complementary food into infants diets. The Panel evaluated predominantly studies in breast-fed healthy infants born at term and focussed its evaluation on data from developed countries.

It concluded that:

'The introduction of complementary food into the diet of healthy term infants in the EU between the age of 4 and 6 months is safe and does not pose a risk for adverse health effects (both in the short-term, including infections and retarded or excessive weight gain, and possible long-term effects such as allergy and obesity¹⁴).

Commercially produced complementary foods are labelled as being suitable for infants from four months of age which, in the UK, has the potential to undermine the advice given by Health Professionals as this is inconsistent with the DH guidelines.

Current Debate

The current debate in the developed countries around the WHO 2001 recommendations reflects the challenge of interpretation of the evidence. The focus for debate is around exclusive breastfeeding, the age of introduction of complementary foods and the subsequent translation of this into public health policy.

A systematic review by Lanigan et al in 2001¹⁵ concluded that whilst exclusive breast feeding for the first 6 months of life can support growth and development in some infants, sub-groups have been identified within certain populations who may require complementary feeding prior to this age. The relevance of the recommendations for developed countries where the risks from episodes of gastroenteritis are perceived to be minimal has been debated^{15, 16, 17}. However, a large scale 2007 UK study of hospital admissions for diarrhoea and lower respiratory tract infections in the first 8 months after birth concluded that breastfeeding, particularly when exclusive and prolonged, protects against severe morbidity in contemporary UK and that population-level increase in exclusive, prolonged breastfeeding would be of considerable potential benefit for public health¹⁶. Further, the risk of micronutrient deficiency in infants who are not weaned until 6 months has been raised^{15, 18}.

The 2003 WHO Global strategy on infant and young child feeding¹⁹, built on their 2001 recommendations to move towards developing a sound global public health strategy that would contribute to a lasting reduction in malnutrition, poverty and deprivation at a population level. This Strategy was developed during a two-year participatory process involving all WHO Member States, international, intergovernmental, health professional and non-governmental organisations and the processed-food industry. It emphasized the need for comprehensive national policies on infant and young child feeding, including guidelines on ensuring appropriate feeding of infants and young children in exceptionally difficult circumstances, and the need to ensure that all health services protect, promote and support exclusive breastfeeding and timely and adequate complementary feeding with continued breastfeeding.

A 2011 BMJ 'Comment' paper²⁰ discussed the evidence and raised questions about current policy recommendations on the duration of exclusive breastfeeding. The authors welcomed the SACN Subgroup on Maternal and Child Nutrition which is carrying out a review of the scientific evidence underpinning UK infant and young child feeding policy. The SACN review will begin by appraising current recommendations for infants and young children in the UK and will consider the need for revising these⁷.

A recent 2012 Swedish study has shown the potential protective effect of introducing gluten-containing foods, gradually and in small amounts whilst still breastfeeding and the potential to increase the opportunity for the child to build up an oral tolerance to coeliac disease²¹.

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Background

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