

Infant Feeding Recommendation

1 Introduction

- 1.1 Appropriate feeding practices are of fundamental importance for the survival, growth, development and nutrition of infants and children everywhere. The optimal duration of exclusive breastfeeding is one of the crucial public health issues that the World Health Organization (WHO) has been keeping under continued review.
- 1.2 Early in 2000, WHO commissioned a systematic review of the published scientific literature on the Optimal duration of exclusive breastfeeding^{1,2}; more than 3000 references were identified for independent review and evaluation. The outcome of this process was subject to a global peer review, after which all findings were submitted for technical scrutiny during an expert consultation.
- 1.3 The WHO revised its guidance in 2001, to recommend exclusive breastfeeding for the first six months of an infants' life. At the World Health Assembly, the UK represented by the Chief Medical Officer supported this resolution and since its adoption, 159 Member States have demonstrated their determination to act by preparing to strengthen their national nutritional policies and plans. In 2001, the UK's Scientific Advisory Committee on Nutrition (SACN) stated that there was sufficient evidence that exclusive breastfeeding for six months is nutritionally adequate.
- 1.4 Following WHO's revised guidance, Hazel Blears (then Minister for Public Health) announced the Department of Health's recommendation on breastfeeding in May

2003. A wide range of professional and voluntary bodies has supported this recommendation, including the Royal College of Midwives, the Community Practitioners and Health Visitors' Association, voluntary and non-government organisations.

- 1.5 In light of this recommendation, the Department of Health has reviewed its guidance on the introduction of solid food and this paper summarises the latest advice. We hope this will inform and assist health professionals supporting parents in optimising their infants' nutrition.

2 What are the Department of Health's recommendations on feeding infants?

- Breastmilk is the best form of nutrition for infants
- Exclusive breastfeeding is recommended for the first six months (26 weeks) of an infant's life
- Six months is the recommended age for the introduction of solid foods for infants
- Breastfeeding (and/or breastmilk substitutes, if used) should continue beyond the first six months, along with appropriate types and amounts of solid foods

All infants should be managed individually so that insufficient growth or other adverse outcomes are not ignored and appropriate interventions are provided.

3 Is there any risk associated with the recommendations?

- 3.1 There is extensive scientific evidence to support the consensus that breastfeeding is the best way to feed an infant. WHO undertook a systematic review on the Optimal duration of exclusive breastfeeding³. The main objective of the review was to assess the effects on child health, growth and development and on maternal health of exclusive breastfeeding for six months compared with exclusive breastfeeding for three to four months with mixed feeding (introduction of complementary liquid or solid foods with continued breastfeeding) thereafter through six months.
- 3.2 Sixteen independent studies were reviewed (seven from developing countries and nine from developed countries). The conclusions were:
- infants who are exclusively breastfed for six months experience less gastrointestinal and or respiratory infection
 - no deficits were demonstrated in growth among infants who were exclusively breastfed for six months
 - no benefits of introducing complementary foods between four and six months have been demonstrated
 - exclusively breastfeeding for six months is associated with delayed resumption of the menstrual cycle and greater postpartum weight loss in the mother.
- 3.3 Naylor and Morrow⁴ conducted a review, which concluded that exposure of the infant to pathogens that are commonly present in food, could result in frequent infection. The human gut is functionally immature at birth in the full-term infant. Immaturities in digestion, absorption and protective function exist that may predispose the infant to age-related gastrointestinal disease during the first six months of life. They suggested that exclusive breastfeeding supports the infant's gut function during the first six months of life. The review supported the recommendation that infants should be exclusively breastfed up to six months.

4 What is the scientific evidence for exclusively breastfeeding for six months?

- 4.1 The systematic review conducted by the WHO concluded that 'while infants must be managed individually, the evidence demonstrated that there are NO apparent risks in recommending, as a public health policy, exclusive breastfeeding for the first six months of life in both developing and developed countries'.
- 4.2 Although there is no evidence to suggest that giving a baby solid food before six months has any health advantage, it is important to manage infants individually so that any deficit in growth and development is identified and managed appropriately.
- 4.3 All infants are individuals and will require a flexible approach to optimise their nutritional needs. Mothers should be supported in their choice of infant feeding.

5 What are the health benefits of breastfeeding?

- 5.1 Breastmilk provides all the nutrients a baby needs for healthy growth and development for the first six months of life and should continue to be an important part of babies' diet for the first year of life.
- 5.2 Breastfed babies are less likely to develop:
- gastric, respiratory and urinary tract infections (Howie, 1990⁵, Kramer, 2002¹, Wilson, 1998⁶, Cesar, 1999⁷, Pisacane, 1992⁸, Marild, 1990⁹.)
 - obesity in later childhood (Fewtrell, 2004¹⁰, Gilman, 2001¹¹, Koletzko, 2004¹².)
 - juvenile-onset insulin-dependent diabetes mellitus (Sadauskaite-Kuenhne, 2004¹³, Mayer, 1988¹⁴, Virtanen, 1991¹⁵)
 - atopic disease (Fewtrell, 2004¹⁰, Lucas, 1990¹⁶, Saarinen and Kajosaari, 1995¹⁷).
- 5.3 Breastfeeding mothers have:
- reduced risk of developing pre-menopausal breast cancer (Newcombe, 1994¹⁸, Beral 2002¹⁹)
 - increased likelihood of returning to their pre-pregnancy weight (Dewey, 1993²⁰)

- delayed resumption of the menstrual cycle (Kennedy, 1989²¹).

6 Does the new recommendation apply to babies fed infant formula milk?

- 6.1 Yes. The Sub-group on Maternal and Child Nutrition of the Scientific Advisory Committee on Nutrition (SACN) concluded that there are unlikely to be any risks associated with delaying weaning to six months in infants who are mixed fed (on breast and infant formula milk) or solely fed on infant formula milk.
- 6.2 Six months is the recommended age to introduce solid foods for all normal healthy infants. Health professionals should consider infants' individual development and nutritional needs before giving advice to introduce solid foods any earlier.

7 Why introduce solid foods at six?

- 7.1 Exclusive breastfeeding to six months provides the best nutrition for babies. There are nutritional and developmental reasons why infants need solid food from six months. Infant's need more iron and other nutrients than milk alone can provide.
- 7.2 Infants are usually able to take soft pureed foods from a spoon, form a bolus and swallow it at about five months. However, it is not until about six months that infants actively spoon-feed with the upper lip moving down to clean the spoon, chew,²² use the tongue to move the food from the front to the back of the mouth, are curious about other tastes and textures and develop their eye-hand co-ordination. By six months, an infant can also have finger foods. The older the baby, the more readily they will accept a varied diet of texture, taste and amount (COMA 1994²³).

8 Will waiting until six months affect a baby's ability to chew?

- 8.1 No. This misconception appears to have arisen from an old scientific/research paper presenting case studies of children who remained on

a liquid diet for 6-10 months, most of whom had developmental delays or disabilities. A hypothesis was suggested that 'if children are not given solid foods to chew at a time when they are first able to chew, troublesome feeding problems may occur'. This has since been quoted and inappropriately extended to younger babies with normal development²⁴.

9 Is waiting to introduce solids until six months likely to produce a 'fussy eater'?

- 9.1 No. There is no evidence to support the idea that starting solids at six months is more likely to be associated with the baby being a fussy eater. Indeed, a randomised trial comparing breastfed babies started on solids at either four months or six months in Honduras found no difference in appetite or food acceptance as reported by the mothers²⁵.

10 What about parents who choose not to follow the new recommendations?

- 10.1 Parents should be advised of the risks associated with weaning before the neuro-muscular co-ordination has developed sufficiently to allow the infant to eat solids. Solid foods should not be offered before four months (COMA 1994²³). However, if an infant is showing signs of being ready to start solid foods before six months, for example, sitting up, taking an interest in what the rest of the family is eating, picking up, and tasting finger foods then they should be encouraged.

11 What are the risks associated with starting solids early?

- 11.1 Introducing solids before sufficient development of the neuro-muscular co-ordination (to allow the infant to eat solid foods) or before the gut and kidneys have matured (to cope with a more diverse diet), can increase the risk of infections and development of allergies such as eczema and asthma.
- 11.2 Certain foods are more likely to upset a baby or cause an allergic reaction than other foods. These foods should not be introduced before six months (COMA 1994²³).

12 Will baby food manufacturers be persuaded to alter their labelling from four months to six months?

- 12.1 Weaning foods are currently labelled in accordance with the European Union Directive. The European Commission has indicated that it intends to review the labelling of these foods but has not given a timeframe for this work. When this review takes place the Department of Health and Food Standards Agency will work closely to ensure that the labelling of weaning foods supports the Department's advice.

13 Will all weaning information for parents be updated so the advice they are receiving is consistent?

- 13.1 The Department wishes to give a clear and consistent message to mothers, health professionals and the public. Leaflets and books such as *The pregnancy book*, *Birth to five* and *Weaning your baby* are being amended to reflect the current recommendations.

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