

UNICEF UK response to media reports questioning the recommendation to introduce solid food to babies at 6 months

An article published in the British Medical Journal (BMJ) is being reported in the media as questioning whether exclusive breastfeeding for 6 months is appropriate for UK babies.¹ This article is not based on new evidence but rather a re-analysis of older evidence, much of which is the same as that used as the basis for weaning recommendations from the World Health Organization (WHO) and the UK's Departments of Health (DH).^{2 3}

There is a wealth of robust evidence that breastfeeding saves lives and protects both the short and long term health of mothers and babies in industrialised countries. Breastfeeding reduces the risk of infections, as well as the risk of diabetes and obesity in children and breast cancer in mothers. It is also associated with improved parenting capability among low-income women, and with reduced incidence of neglect and postnatal depression, thereby improving the life chances of children.^{4 5 6}

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WHO recommended the introduction of solid food at around 6 months alongside continued breastfeeding in 2001. This was based on evidence that the early introduction of solid food to babies increased the risk of infection and disease. In 2003, DH also began to recommend introducing solids at 'around 6 months', changing from its previous position of 'at 4-6 months'. The authors of the BMJ article question this recommendation for UK babies. The basis of their arguments is that delaying introducing solid food may increase the risk of iron deficiency anaemia (IDA), coeliac disease and food allergies, and that introducing new tastes may increase acceptance of green leafy vegetables and so encourage healthy eating later in life.

Iron deficiency anaemia

IDA is strongly influenced by iron stores at birth (which is related to the mother's iron status and length of gestation) and early cord cutting (which is still common and can

¹Frewtrel M, Wilson D, Booth I, Lucas A (2011) Six months of exclusive breastfeeding: how good is the evidence? BMJ 2011; 342:c5955 <http://www.bmj.com/cgi/doi/10.1136/bmj.c5955>

² World Health Organization (2002), 55th World Health Assembly. Infant and young child nutrition. World Health Organization,(WHA55.25). http://apps.who.int/gb/archive/pdf_files/WHA55/ewha5525.pdf.

³ Scientific Advisory Committee on Nutrition (SACN), Subgroup on Maternal and Child Nutrition (SMCN). Paper for discussion: introduction of solid foods, agenda item: 3. 2003. SMCN/03/08. www.sacn.gov.uk/pdfs/smcn_03_08.pdf.

⁴ Ip S, et al (2007) Breastfeeding and Maternal Health Outcomes in Developed Countries. AHRQ Publication No. 07-E007. Rockville, MD: Agency for Healthcare Research and Quality. <http://www.ncbi.nlm.nih.gov/books/NBK38337/>

⁵ Horta B et al (2007) Evidence on the long-term effects of breastfeeding. WHO. http://www.who.int/child_adolescent_health/documents/9241595230/en/index.html

⁶ Gutman LM, Brown J, Akerman R (2009) Nurturing Parenting Capability: The Early Years. Centre for Research on the Wider Benefits of Learning. <http://www.learningbenefits.net/Publications/ResRepIntros/ResRep30intro.htm>

⁷ Strathern L, Mamun AA, Najman JM et al (2009) Does Breastfeeding Protect Against Substantiated Child Abuse and Neglect? A 15-Year Cohort Study. Pediatrics; 123; 483-493. <http://pediatrics.aappublications.org/cgi/content/abstract/123/2/483>

reduce iron stores by up to 33%). IDA is also associated with poverty and deprivation. Ensuring that the mother is not anaemic and that cord cutting is delayed will in turn ensure that the baby's own body stores and breastmilk will provide sufficient iron for over 6 months. ⁸

The majority of the food commonly introduced to babies in the early months such as cereal, fruit and vegetables are low in iron and will therefore not help prevent IDA. However, if they are introduced before a baby needs them, they will displace breastmilk from the baby's diet and may thereby reduce the amount of iron consumed. ⁹

Coeliac disease

Coeliac disease is associated with the early introduction of gluten (from cereals). There have been a number of observational studies which have suggested that the exact timing of the introduction of gluten into the diet may influence the development of this disease. The Government's Scientific Advisory Committee on Nutrition and Committee on Toxicity of Chemicals in Foods, Consumer Products and the Environment have been asked to analyse the evidence on this issue and its draft statement can be found at:

www.sacn.gov.uk/meetings/sub_groups/maternal_child_nutrition/19012011.html

This statement concludes:

Currently available evidence on the timing of introduction of gluten into the infant diet and subsequent risk of coeliac disease and T1DM is insufficient to support recommendations about the appropriate timing of introduction of gluten into the infant diet for either the general population or high-risk sub-populations. However, there is evidence suggesting that not being breastfed at the time when gluten is introduced into the diet is associated with an increased risk of subsequently developing coeliac disease.

Food allergies

The incidence of genuine food allergy (as opposed to food intolerance) is rare. ¹⁰ There is speculation and some observational data that when there is a family history of true allergy then early introduction of certain foods may be beneficial. Random control trials are now being undertaken to test this theory. Should this prove to be the case (which is by no means certain) then high risk families would need to be advised on a case-by-case basis. This would not affect public policy as applied to the majority of children not affected by allergies.

⁸ Dewey K, Chaparro M (2007) Mineral metabolism and body composition Iron status of breast-fed infants. Proceedings of the Nutrition Society (2007), 66, 412–422 <http://www.ncbi.nlm.nih.gov/pubmed/17637094>

⁹ Geissler C, Powers H (2007) Human Nutrition, 11th Ed Elsevier

¹⁰ <http://www.nhs.uk/Livewell/Allergies/Pages/Foodallergy.aspx>

Introducing bitter tastes

The BMJ paper claims that introducing bitter tastes early will increase the acceptance of green leafy vegetables and so prevent obesity later in life. This is purely speculative.

Breastmilk changes flavour depending on the mother's diet and so exposes the baby to various tastes from birth onwards. Food preference is also dependant on a number of factors including what is given, how it is given and parental attitude. Current DH recommendations take account of these factors and encourage parents to introduce a range of healthy foods in an appropriate manner.¹¹

Recommendations

The UNICEF UK Baby Friendly Initiative supports continued research into improving infant health. However, any new research should then be considered as part of the whole body of evidence and any recommendations made should be based on the full evidence rather than on single papers. It is unfortunate that the BMJ press office and the UK media have focused on a single piece of comment which has resulted in sensational headlines and risks misleading parents and damaging infant health. When considering this analysis it should be noted that three of the four authors have declared an association with the baby feeding industry.

The DH recommendation is that solid food be introduced at *around* six months, regardless of whether the baby is breastfed or formula-fed. It is acknowledged that babies' individual development varies widely and that some babies may be ready for solid food before and after this time. Since the introduction of this recommendation the number of babies experiencing the potentially harmful introduction to solid food before 4 months has reduced.¹²

Health professionals should continue to support mothers with accurate information based on DH and WHO guidance, helping them to recognise the signs of when their baby may be ready to try new foods, while continuing to breastfeed.

¹¹ Weaning (Department of Health, 2007) <http://www.babyfriendly.org.uk/page.asp?page=115&category=10>

¹² Bolling K, et al (2007) Infant Feeding Survey 2005, Department of Health, London
<http://www.ic.nhs.uk/pubs/ifs2005>