

Position Statement

Complementary Feeding

Background

The aim of this position statement is to provide guidance for dietitians working with parents and caregivers on appropriate complementary feeding in the healthy term infant.

For the purposes of this statement, complementary food refers to solid foods as a nutritional source, other than breastmilk or infant formula. Solid foods are needed to complement milk when it is no longer sufficient to meet the energy and nutrient requirements of the growing infant¹. The timing of the introduction of solid foods to an infant's diet is important for nutritional and developmental reasons^{1, 2}.

In 2003, the UK Department of Health (DH), adopted the World Health Organization (WHO) Global Infant Feeding Recommendation which advised exclusive breastfeeding for the first six months of life as optimal for most infants. WHO recommended that "to meet their evolving nutritional requirements, infants should receive nutritionally adequate and safe complementary foods whilst breastfeeding continues up to two years of age or beyond"³.

Advice given to parents and caregivers should be based on accurate information that will help them make informed choices about feeding their infant. However, infant feeding choices are influenced by multiple factors, including cultural, socio-economic and lifestyle. Healthcare Professionals (HCPs) must take these factors into account when advising about infant feeding. HCPs consistently report that parents experience difficulties adhering to DH guidelines regarding the appropriate age for the introduction of solid foods.

Surveys conducted in the UK have found that many infants receive solid foods before the age of six months. The Diet and Nutrition Survey of Infants and Young Children (2011) reported that 42% of infants had received solid foods by four months of age. More recently, the Scottish Maternal and Infant Survey (2017) reported that while only 3% of infants began complementary feeding before four months, more than half (54%) had received solid foods before six months of age^{4, 5}. These surveys suggest that some parents and caregivers perceive their baby is ready for solid foods before six months or provide solid foods for other reasons. Therefore, HCPs must balance the needs of individuals against population-based recommendations.

In the UK and other middle- to high-income countries there is much debate regarding the applicability of the WHO Global Infant Feeding Recommendation. Evidence to support the benefits of exclusive breastfeeding to six months versus four months of age is not strong, and it is recognised that parents and caregivers introduce solid foods for various reasons and follow advice from many sources⁶. In view of this the European Society for Paediatric Gastroenterology, Hepatology and Nutrition (ESPGHAN) and the UK Scientific Advisory Committee on Nutrition (SACN) recently reviewed evidence informing the appropriate age for the introduction of complementary foods to the healthy term infant^{1, 6}. ESPGHAN found

no evidence of harm associated with the introduction of solid foods between four and six months of age. However, there was also no evidence of benefit associated with the introduction of solid foods before six months of age⁶.

Responsive feeding is needed to support good complementary feeding practices⁷. In this type of feeding parents and caregivers recognise and respond appropriately to infant cues that signal hunger or satiety. This allows the infant to self-regulate how much milk they drink or how much solid food they eat.

The introduction of allergenic foods is another important consideration. Previously, advice has been to delay introducing these foods to children at high risk of food allergy. However, recent research suggests that high-risk children may benefit from earlier introduction of peanut-containing foods. The Learning Early About Peanut Allergy (LEAP) study found that introduction of peanuts, at four compared with six months of age, decreased the frequency of the development of peanut allergy among children at high risk for this allergy⁸. A substantial body of evidence, including the Eating and Tolerance (EAT) study, found that earlier introduction of potentially allergenic foods was protective against the development of allergy in the general population⁹. Based on available evidence, the SACN statement concluded that there were insufficient data to support a recommendation for the introduction of potentially allergenic foods before six months. The committee recommended the introduction of foods containing peanut and hen's egg from the start of feeding solids, at around six months of age, alongside other complementary foods¹. Hen's egg and foods containing egg should be given cooked.

The BDA Paediatric Specialist Group makes the following recommendations for the introduction of complementary foods based on the available evidence.

The BDA recommends that:

1. Most infants should be offered complementary foods from around six months of age when they are developmentally ready. However, each infant should be managed individually, as they develop at different rates. Identifying signs of developmental readiness can be challenging; parents and caregivers should be encouraged to follow responsive feeding guidance by UNICEF⁷. Some infants may begin complementary feeding after four months of age (but not before seventeen weeks). This should only commence when developmental readiness has been achieved. Parents and caregivers should consult a HCP when deciding to do this.
2. Advice on responsive or cue-based feeding should be provided to parents and caregivers.
3. Exclusive breastfeeding from birth, until the introduction of complementary foods, is the optimal way to feed infants. Ideally, breastfeeding should continue alongside the introduction of complementary foods until at least one year of age. WHO recommends continuing breastfeeding until two years of age or beyond³. The BDA acknowledges that mothers wishing to continue breastfeeding during the second year of life should be supported to do so and all breastfeeding mothers should receive adequate support and encouragement to continue with breastfeeding¹⁰.
4. Irrespective of the mode of milk feeding and timing of introduction of solid foods, parents and caregivers should be supported and given appropriate advice to ensure

that all infants are fed safely and are receiving a nutritionally adequate diet. Parents and caregivers should be advised on the progression of feeding and recognition of developmental milestones.

5. A wide range of foods, including iron-containing foods, should be introduced from the beginning of complementary feeding. Food texture and content should progress according to the infant's cues, developmental attainments and nutritional needs. A variety of tastes, including bitter tastes, should be offered. It is important to recognise that infants often require repeated exposure on many occasions before they accept a food, especially as they become older. All parents and caregivers should check if they qualify for free Healthy Start vouchers to purchase milk, fruit and vegetables.
6. The deliberate exclusion or delayed introduction (beyond six months) of potentially allergenic foods may increase the risk of developing food allergy to these same foods. Potential food allergens which are part of the family's diet (e.g. egg, foods containing peanuts and other tree nuts, pasteurised dairy foods, fish/seafood and wheat) can be included, one new food at time, when complementary feeding begins. These foods should be given regularly in the infant's diet, unless they cause a reaction. This may reduce the chances of developing a food allergy later in life.
7. Potentially allergenic foods are recommended from the start of feeding solids, but after four months of age, alongside other complementary foods and continued breastfeeding where possible^{8, 9}. Parents and caregivers should not continue to give a food to their baby if they react to it, and they should seek medical advice. For infants with a higher risk of food allergy, e.g. those with eczema or who have an existing food allergy, medical advice should be sought before introducing potentially allergenic foods. For further information refer to British Society for Allergy and Clinical Immunology and BDA Food Allergy Specialist Group.
8. The timing of the introduction of gluten into the diet is not associated with coeliac disease and can be introduced from the beginning of complementary feeding.
9. Breastmilk, infant formula and water should be the only drinks offered throughout infancy. Fruit juices and baby juices, undiluted or diluted, are not recommended under one year of age. Unmodified cow's milk should not be given as a main source of milk before the age of one year as its consumption in infancy is associated with low iron status. Plant based milks are not nutritionally adequate for infants in the first year and should not be given as a main source of milk until the age of two years unless advised by a dietitian^{11, 12}.
10. For preterm infants, complementary feeding should begin according to the baby's cues, but not before four months after the expected date of delivery. Once started it can progress as for term infants. Preterm infants with chronic health issues require special consideration and advice should be sought from the dietitian and medical team caring for them. For further information refer to Bliss, a charity for babies born premature or sick.

11. All infants from birth to one year of age being exclusively breastfed or partially breastfed require a daily supplement containing 8.5-10mcg of vitamin D. Infants who are fed infant formula fortified with vitamin D do not require supplementation unless they are taking less than 500mL per day¹³. All young children should continue to be given a vitamin D supplement of 10 mcg/day until they are five years old. A supplement with a wider range of vitamins may be necessary for infants who become very fussy eaters. All parents and caregivers should check if they qualify for free Healthy Start vitamin drops.
12. Foods high in free sugars and salt are contraindicated in infants. Their avoidance from an early age will help to establish healthy eating habits in later life. Free sugars are a risk factor for dental caries and the high energy density of foods containing free sugars may risk development of obesity. A high salt intake is associated with later hypertension.
13. Commercial baby foods often contain added sugar, salt or ingredients that are high in sugar and salt, which do not support attainment of a healthy, balanced diet. Home-prepared foods, without added sugar and salt, are recommended to introduce appropriate flavours, textures and variety¹⁴.

References

1. Scientific Advisory Committee Nutrition. Feeding in the First Year of Life. 2018.
2. World Healthy Organization. Complementary feeding of young children in developing countries: a review of current scientific knowledge. 1998.
3. World Healthy Organization. The optimal duration of exclusive breastfeeding: report on an expert consultation. 2001.
4. Lennox A SJ, Ong K et al. Diet and Nutrition Survey of Infants and Young Children (2011). 2013.
5. Scottish maternal and infant nutrition survey. Scottish Government. 2018.
6. Fewtrell M BJ, Campoy C, Domellöf M, Embleton N, Fidler Mis N, Hojsak I, Hulst JM, Indrio F, Lapillonne A, Molgaard C. Complementary Feeding: A Position Paper by the European Society for Paediatric Gastroenterology, Hepatology, and Nutrition (ESPGHAN) Committee. *Journal of Paediatric Gastroenterology and Nutrition*. 2017;64(1):119-32.
7. Responsive Feeding Info Sheet. UNICEF. Accessed 1st May 2020: <https://www.unicef.org.uk/babyfriendly/wp-content/uploads/sites/2/2017/12/Responsive-Feeding-Infosheet-Unicef-UK-Baby-Friendly-Initiative.pdf>.
8. Du Toit G, Sayre PH, Roberts G, et al. Effect of Avoidance on Peanut Allergy after Early Peanut Consumption. *New England Journal of Medicine*. 2016;374(15):1435-43.
9. Perkin MR, Logan K, Tseng A, et al. Randomized Trial of Introduction of Allergenic Foods in Breast-Fed Infants. *New England Journal of Medicine*. 2016;374(18):1733-43.
10. BDA. Breastfeeding Policy Statement. 2018.
11. Carlo Agostoni RBC, Susan Fairweather-Tait, Marina Heinonen, Hannu Korhonen, Sébastien La Vieille, Rosangela Marchelli, Ambroise Martin, Androniki Naska, Monika Neuhäuser-Berthold, Grażyna Nowicka, Yolanda Sanz, Alfonso Siani, Anders

- Sjödin, Martin Stern, Sean Strain, Inge Tetens, Daniel Tomé, Dominique Turck and Hans Verhagen. Scientific Opinion on the essential composition of infant and follow-on formulae. EFSA Panel on Dietetic Products. 2014.
12. Luyt D, Ball H, Makwana N, et al. The British Society for Allergy and Clinical Immunology Guideline for the Diagnosis and Management of Cow's Milk Allergy. The British Society for Allergy and Clinical Immunology. 2014.
 13. Scientific Advisory Committee on Nutrition, Vitamin D and Health. 2016.
 14. Foods and drinks aimed at infants and young children: evidence and opportunities for action. Public Health England. 2019.

Published April 2020
Revised May 2020
Due Review April 2022

©2020 The British Dietetic Association
Tel: 0121 200 8080 Fax: 0121 200 8081 email: info@bda.uk.com

Commercial copying, hiring or lending without the written permission of the BDA is prohibited.

bda.uk.com