Infant Feeding and Allergy Prevention

Key recommendations

- When your infant is ready, at around six months, but not before four months, start to introduce a variety of solid foods, starting with iron rich foods, while continuing breastfeeding.
- All infants should be given allergenic solid foods including peanut butter, cooked egg, dairy and wheat products in the first year of life. This includes infants at high risk of allergy.
- Hydrolysed (partially and extensively) infant formula are not recommended for prevention of allergic disease.

Introduction

ASCIA has developed these guidelines to outline practices that may help reduce the risk of infants developing allergies, particularly early onset allergic diseases such as eczema and food allergy.

These guidelines are based on current published evidence, including information published after 2010. The revised recommendations listed above are based on a consensus agreement by participants in the Infant Feeding Summit hosted by the Centre for Food & Allergy Research (CFAR) in May 2016. Minor updates have been made in 2020 to link to relevant websites and to be consistent with statements in other ASCIA documents.

The reasons for the continued rise in allergic diseases, such as food allergy, eczema, asthma and allergic rhinitis (hay fever) are complex and not well understood. Although infants with a family history of allergic disease are at higher risk of allergies, infants with no family history can also develop allergies. Therefore, these guidelines are relevant for all families, including those in which siblings or parents already have food allergies or other allergic conditions.

If your infant already has an allergic disease (such as severe eczema or food allergy), you should discuss what specific measures might be useful with your doctor.

Maternal diet during pregnancy and breastfeeding

- ASCIA recommends a healthy balanced diet, rich in fibre, vegetables and fruit. This provides many health benefits to the mother and infant during pregnancy and breastfeeding.
- Exclusion of any particular foods (including foods considered to be highly allergenic) from the maternal diet during pregnancy or breastfeeding is not recommended, as this has not been shown to prevent allergies.
- Up to 3 serves of oily fish per week may be beneficial, as there is some evidence that omega-3 fatty acids (found in oily fish) during pregnancy and breastfeeding may help prevent eczema in early life.
- Whilst there is moderate evidence that probiotics during pregnancy and breastfeeding may help prevent eczema in early life, recommendations about probiotic supplements cannot currently be made because the optimal species and dose of probiotics that might have an effect is unclear. More research is required in this area before clear and specific recommendations can be made.

Breastfeeding and infant formula

- Breastfeeding is recommended for at least six months and for as long as mother and infant wish to continue. There is no consistent evidence that breastfeeding is effective for the prevention of allergic disease. However, breastfeeding is recommended for the many benefits it provides to mother and infant.

- Breastfeeding during the period that solid foods are first introduced to infants from around six months may help reduce the risk of the infant developing allergies, although evidence for this is low.
- If breastfeeding is not possible, a standard cow's milk based formula can be given. There is no evidence that soy or goat's milk formula reduce the risk of allergic disease when used in preference to standard cow's milk based formula.
- Based on a recently published review of studies, there is no consistent convincing evidence to support a protective role for partially hydrolysed formulas (usually labelled 'HA' or Hypoallergenic) or extensively hydrolysed formulas for the **prevention** of eczema, food allergy, asthma or allergic rhinitis in infants or children.
- Regular cow's, goat's milk (or other mammal derived milks), soy milk, nut and cereal beverages are *not recommended* for infants as the main source of milk before 12 months of age.

When your infant is ready, at around six months, but not before four months, start to introduce a variety of solid foods, starting with iron rich foods, while continuing breastfeeding.

- Foods should not be introduced before four months.
- Infants differ in the age that they are developmentally ready for solid foods.
- Signs that your infant may be developmentally ready to start solids include being able to sit relatively unaided, loss of the tongue-thrust reflex that pushes food back out, and trying to reach out and grab food.
- ASCIA recommends the introduction of solid foods around six months, but not before four months, and preferably whilst breastfeeding. There is some evidence this is protective against the development of allergic disease.
- When your infant is ready, introduce foods according to what the family usually eats, regardless of whether the food is considered to be a common food allergen. There is some evidence that the introduction of common allergenic foods (including cooked eggs as raw egg is not recommended, peanuts, nuts, wheat, fish) should not be delayed. However further evidence is required to clarify optimal timing for each food.
- Only introduce one new common food allergen at each meal, so that the problem food can be identified if there is an allergic reaction.
- If your infant has an allergic reaction, stop giving that food and seek medical advice.
- Unless there is an allergic reaction to the food, continue to give the food to your baby regularly (twice weekly), as part of a varied diet. Trying a food and then not giving it regularly may result in a food allergy developing.
- If possible, continue to breastfeed whilst you introduce foods to your infant. There is some limited evidence that this may reduce the risk of allergies developing, and there are many other health benefits of continued breast feeding.
- Cow's milk or soy milk (or their products, such as cheese and yoghurt) can be used in cooking or with other foods if dairy products/soy are tolerated.
- There is good evidence that for infants with severe eczema and/or egg allergy, that regular peanut intake before 12 months of age can reduce the risk of developing peanut allergy. If your child already has an egg allergy or other food allergies or severe eczema, you should discuss how to do this with your doctor.
- There is moderate evidence that introducing cooked egg (raw egg is not recommended) into an infant's diet before 8 months of age, where there is a family history of allergy, can reduce the risk of developing egg allergy.
- When introducing foods that other family members are allergic to, it is important to follow risk minimisation strategies to prevent cross contamination of allergens, for those who are allergic to the foods.

- It is important to understand that the facial skin in infants is very sensitive and that many foods (including citrus, tomatoes, berries, other fruit and vegemite) can irritate the skin and cause redness on contact – this is not food allergy. Smearing food on the skin will not help to identify possible food allergies.

Some infants will develop food allergies. If there is any allergic reaction to any food, stop giving that food and seek medical advice from a doctor with experience in food allergy.

Other measures

- Do not smoke during pregnancy, or in the presence of the infant, or in enclosed spaces where the infant sleeps or plays.

Levels of evidence - What does low, moderate and high evidence mean?

Researchers usually grade evidence from research studies to help them understand the importance of the study findings. Generally, this is based upon the study design, size and overall quality of the study:

- "Low/poor/some"- means evidence from poorly conducted or observational studies only
- "Moderate"- means evidence from reasonably well conducted studies or well conducted single studies
- "High/good/strong"- means convincing evidence from well conducted studies, or many well conducted studies results pooled into a large analysis (meta-analysis)

Acknowledgements

These guidelines have been developed by the ASCIA Paediatric and Dietitian Committees, and reviewed by the ASCIA membership, with significant input from the Centre for Food & Allergy Research (CFAR), a National Health and Medical Research Council (NHMRC) Centre of Research Excellence (CRE) in 2016. Minor updates have been made in 2020 to link to relevant websites and to be consistent with statements in other ASCIA documents.

The reference list for this document is available at www.allergy.org.au/hp/papers/references-for-infant-feeding

Further information

ASCIA infant feeding and allergy prevention information: www.allergy.org.au/patients/allergy-prevention

Nip allergies in the Bub program for food allergy prevention: https://preventallergies.org.au/

Support for patients, consumers and carers:

Allergy & Anaphylaxis Australia www.allergyfacts.org.au or call 1300 728 000

Allergy New Zealand www.allergy.org.nz