

Infant Feeding and Allergy Prevention Clinical Update

Background

ASCIA Guidelines for infant feeding and allergy prevention were developed in 2016 to outline practices that may help reduce the risk of infants developing allergies, particularly early onset allergic diseases such as eczema and food allergy¹.

The reasons for the continued rise in allergic diseases such as food allergy and eczema are complex and not well understood. Although infants with a family history of allergic disease are at increased risk of developing allergies, infants with no family history can also develop allergies.

Therefore, ASCIA guidelines are relevant for all families, including those in which siblings or parents already have food allergies or other allergic conditions.

Risk factors for food allergy development

An infant with severe eczema or immediate family history (first degree relative) of allergies, is considered at increased risk of developing food allergy.

Severe eczema is defined as persistent or frequently recurring eczema with typical morphology and distribution, assessed as severe by a healthcare professional and requiring frequent prescription-strength topical corticosteroids, calcineurin inhibitors or other anti-inflammatory agents, despite appropriate use of emollients².

Infants with severe eczema and/or egg allergy are at increased risk of developing peanut allergy. Introduction of peanut before 12 months of age in these infants significantly reduces the risk of developing peanut allergy^{3,4}.

Implementing ASCIA Guidelines in clinical practice

1. Breastfeeding and infant formula

- Breastfeeding is recommended for at least 6 months and for as long as mother and infant wish to continue, for the many benefits it provides to the mother and infant.
- If breastfeeding is not possible, a standard cow's milk based formula can be given.
- 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.

2. Key recommendations for infant feeding and allergy prevention

- When the infant is ready, at around 6 months, but not before 4 months, start to introduce a variety of solid foods, starting with iron rich foods, preferably whilst continuing to breastfeed.
- All infants should be given the common food allergens (peanut, tree nuts, cow's milk, egg, wheat, soy, sesame, fish and shellfish), including smooth peanut butter/paste, cooked egg, dairy and wheat products before 12 months of age, unless they are already allergic to the food. This includes infants at with severe eczema and/or egg allergy, who have an increased risk of developing food allergy.
- Hydrolysed (partially and extensively) infant formula is not recommended for the prevention of allergic disease.

3. Maternal diet during pregnancy and breastfeeding

- A healthy balanced diet, rich in fibre, vegetables and fruit is recommended.
- Exclusion of any particular foods (including common food allergens) from the maternal diet during pregnancy or breastfeeding is not recommended.
- Up to 3 serves of oily fish per week may help prevent eczema in early life.

4. Introducing solid foods

- Solid foods should not be introduced before 4 months.
- Introduce solid foods around 6 months, but not before 4 months, and preferably whilst breastfeeding. Infants differ in the age that they are developmentally ready for solid foods.
- When 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.
- Common food allergens (including peanut) should be introduced in an age appropriate form (e.g. smooth peanut butter/paste, cooked egg) before 12 months of age. This includes infants considered to have an increased risk of developing food allergy.
- Infants who are already allergic to a particular food must not be given that food.
- Introduce one new food at a time so that if a reaction occurs, the problem food can be more easily identified. If a food is tolerated, continue to give this regularly as a part of a varied diet.
- 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.
- When introducing foods that other family members are allergic to, it is important to do so in a manner that does not put the family member with food allergy at risk.
- Smearing food on the skin will not help to identify possible food allergies as an infant's skin is very sensitive and skin irritation and redness on contact does not equate to food allergy. Smearing food on the skin of a child with eczema may increase the risk of the child developing an allergy to that food.

Practice point

- Do not remove baked egg or baked milk from the infant's diet if it is already tolerated – egg and/or milk in baked products can be continued if the infant has reacted to straight egg and/or milk but previously tolerated egg and/or milk in baked products.
- An allergic reaction that progresses rapidly and causes respiratory or circulatory symptoms is anaphylaxis.

4. Optimise eczema management

- It is important to optimise eczema management to prevent food allergy sensitisation through the skin.

5. Other measures

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

Further information

Health professional resources

ASCIA Guidelines for infant feeding and allergy prevention, ASCIA Guide for introduction of peanut to infants with severe eczema and/or food allergy and reference list:

<https://www.allergy.org.au/health-professionals/papers/infant-feeding-allergy-prevention>

ASCIA Action Plans, Anaphylaxis Guidelines, Travel Plan, Checklists and adrenaline (epinephrine) autoinjector instructions: <https://www.allergy.org.au/anaphylaxis>

Dietary avoidance: <https://www.allergy.org.au/patients/food-allergy/ascia-dietary-avoidance-for-food-allergy>

Food Allergy Clinical Update: <https://www.allergy.org.au/health-professionals/papers/food-allergy>

Influenza Vaccination of the Egg Allergic Individual:

<https://www.allergy.org.au/health-professionals/papers/vaccination-of-the-egg-allergic-individual>

Free online training:

- Food allergy prevention e-training <https://etraininghp.ascia.org.au/food-allergy-prevention>
- Paediatric atopic dermatitis (eczema) e-training <https://etraininghp.ascia.org.au/atopic-dermatitis>
- Allergy and Anaphylaxis e-training <https://alm.ascia.org.au/>

Patient resources

- National Allergy Strategy Food Allergy Prevention Project – www.preventallergies.org.au
 - Information about infant feeding for allergy prevention
 - Practical infant feeding information
 - How to optimise eczema for allergy prevention
 - The website includes practical information, videos and FAQs.
- Australasian Society of Clinical Immunology and Allergy (ASCIA) – www.allergy.org.au
- [Allergy & Anaphylaxis Australia](http://www.allergyfacts.org.au) – national patient support organisation – www.allergyfacts.org.au
- [SelectWisely](http://www.selectwisely.com/) (translation cards) - www.selectwisely.com/

References

1. ASCIA Guidelines for infant feeding and allergy prevention. Australasian Society of Clinical Immunology and Allergy (ASCIA). 2016. <https://www.allergy.org.au/patients/allergy-prevention>
2. NIAID, www.niaid.nih.gov/diseases-conditions/eczema-atopic-dermatitis
3. Du Toit G et al. Effect of avoidance on peanut allergy after early peanut consumption. N Engl J Med. 2016. DOI: 10.1056/NEJMoa1514209
4. Du Toit G et al. Randomized trial of peanut consumption in infants at risk for peanut allergy. N Engl J Med. 2015 Feb 26;372(9):803-13

Additional references

5. Perkin MR et al. Randomised trial of introduction of allergenic foods in breast-fed infants. N Engl J Med. 2016. DOI: 10.1056/NEJMoa1514210
6. Togias A et al Addendum guidelines for the prevention of peanut allergy in the United States: Report of the National Institute of Allergy and Infectious Diseases (NIAID) sponsored expert panel. WAO J 2017 10(1):1 www.ncbi.nlm.nih.gov/pmc/articles/PMC5217343/
7. Turner PJ, Campbell DE. Implementing primary prevention for peanut allergy at a population level. JAMA 2017 Feb 13. www.jamanetwork.com/journals/jama/fullarticle/2603418

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