



**Submission to
Food Standards Australia New Zealand
In relation to
Proposal P274 - Minimum Age Labelling of Foods for Infants**

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The Allergen Bureau Ltd

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The Allergen Bureau Ltd

The Allergen Bureau Ltd was established in 2005 as an initiative of the Australian Food & Grocery Council Allergen Forum, and currently operates independently on a membership basis. The overall objective of the Allergen Bureau is to share information and experience within the food industry on the management of food allergens to ensure manufacturers and consumers receive relevant, consistent and easy to understand information on food allergens.

Almost 20% of visitors to the Allergen Bureau website come from North America (Canada and USA) and over 10% from Europe with the majority from the UK. These visitors include representatives from food industries in these countries as well as research groups and consumers.

The growth in the incidence of food allergens is an international phenomenon. The Allergen Bureau draws on and disseminates information from all over the world on food regulations and the latest scientific research on food allergens including emerging food allergens. The Allergen Bureau provides rapid responses to questions concerning the management of food allergen risks in food ingredients and manufactured foods in Australia and New Zealand.

The Allergen Bureau is the product of cooperation amongst competitors in the food industry, with national and multi-national food manufacturing and marketing companies, suppliers, importers, exporters, retailers and consumer groups cooperating and sharing information on managing the risks of food allergens in industry in the interests of consumers.

Allergen Bureau Full Members:



Allergen Bureau Associate Members (Categories A, B & C):

- Advancing Food Safety
- All Systems Go
- Australasian Medical & Scientific Ltd
- Bellamys Organic Pty Ltd
- Domray Pty Ltd
- FJ Fleming Food Consulting Pty Ltd
- Hamilton Grant
- Ingredion
- Kadac Pty Ltd
- Orange & Green Pty Ltd
- Sci Qual International Pty Ltd
- Vatmi Industries

Submission by the Allergen Bureau in respect of proposal P274: Minimum Age Labelling of Foods for Infants

The Allergen Bureau was established in 2005 as an initiative of the Australian Food & Grocery Council Allergen Forum, and currently operates independently as a 'not for profit' organisation on a membership basis. The overall objective of the Allergen Bureau is to share information and experience within the food industry on the management of food allergens to ensure manufacturers and consumers receive relevant, consistent and easy to understand information on food allergens.

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The Allergen Bureau welcomes the opportunity to make this submission to Food Standards Australia New Zealand (FSANZ) in response to the call for submissions – *P274 - Minimum Age Labelling of Foods for Infants*.

The Allergen Bureau would like to draw attention to the growing consensus amongst the health professionals that whilst breast milk is the best nutrition for infants and that continued breast feeding during the introduction of complementary foods is very important from a public health perspective, there is increasing evidence that delaying the introduction of complimentary foods does not prevent and may instead increase the risk of infants and children developing food allergies. The Allergen Bureau supports the principle that the development of regulatory requirements should be based on risk using the best available scientific evidence to assess the potential health and safety risks to achieve the best possible health outcome.

The Allergen Bureau acknowledges that the age of introduction of first solid foods is a highly debateable topic amongst health professionals, with no clear and unified position. The Allergen Bureau also notes that until relatively recently, this has been an area of limited research and hence limited evidence-based recommendations have existed. As such, at this point in time, for lower risk countries, there is no conclusive scientific rationale as a driver for Regulatory change, rather – the evolving and emerging science is indicating potential benefits for earlier introduction of solids.

The Allergen Bureau supports the Regulatory Option to **maintain the STATUS QUO**, with “From 4 months” as the youngest minimum age labelling permitted on infant foods from the perspective that:

- **Potential allergy risk with delayed introduction of infant foods:** An accumulating body of scientific evidence suggests a potential window of opportunity to reduce allergic responses in infants by the introduction, not avoidance, of solid foods, between 4 and 6 months of age. This is recognized by national and regional competent authorities and scientific bodies such as EFSA (2009), ESPGHAN, American Academy of Paediatrics, and confirmed in recent Australian studies, and
- **Consistency with ANZSC 2.9.2 regulation** as well as consistency with EU regulation.

The Australasian Society of Clinical Immunology and Allergy

The Australasian Society of Clinical Immunology and Allergy (ASCI) in its advice on Infant feeding¹ makes the following points relevant to food allergies and the introduction of solid foods:

- *It is considered that breastfeeding during the period that foods are first introduced may help prevent the development of allergy to those foods.*
- *Breastfeeding is recommended for at least 6 months for many reasons and is encouraged for as long as the mother and infant wish to continue.*
- *Exclusion of allergenic foods from the maternal diet has not been shown to prevent allergies.*

On the introduction of Solid Foods ASCI advises:

- *More research is needed to determine the optimal time to start complementary solid foods. Based on the currently available evidence, many experts across Europe, Australia and North America recommend introducing complementary solid foods from around 4-6 months.*
- *There is little evidence that delaying the introduction of complementary solid foods beyond 6 months reduces the risk of allergy.*
- *There have been some suggestions that delaying introduction of foods may actually increase (rather than decrease) allergy, however at this stage this is not proven.*
- *There is insufficient evidence to support previous advice to specifically delay or avoid potentially allergenic foods (such as egg, peanuts, nuts, wheat, cow’s milk and fish) for the prevention of food allergy or eczema. This also applies to infants with siblings who already have allergies to these foods.*

¹ http://www.allergy.org.au/images/stories/aer/infobulletins/2010pdf/ASCI_Infant_Feeding_Advice_2010.pdf

ASCIA also cites the following recent review papers in relation to this advice:

Agostoni C, et al. Complementary feeding: a commentary by the ESPGHAN Committee on Nutrition J Pediatr Gastroenterol Nutr 2008; 46:99-110.

Allen CW, Campbell DE, Kemp AS. Food allergy: Is strict avoidance the only answer? Pediatr Allergy Immunol. 2008 Sep 15.

Greer FR, et al.. Effects of early nutritional interventions on the development of atopic disease in infants and children: the role of maternal dietary restriction, breastfeeding, timing of introduction of complementary foods, and hydrolyzed formulas. Pediatrics 2008; 121:183-91

Høst A et al. Dietary prevention of allergic diseases in infants and small children. Pediatr Allergy Immunol. 2008 Feb;19(1):1-4.

Prescott SL, Pediatr Allergy Immunol 2008 Feb 9; [Epub ahead of print]

Sicherer SH, Burks AW. Maternal and infant diets for prevention of allergic diseases; Understanding menu changes in 2008. J Allergy Clin Immunol 2008; 122:29-33

Snijders BE et al Age at first introduction of cow milk products and other food products in relation to infant atopic manifestations in the first 2 years of life: The KOALA Birth Cohort Study. Pediatrics 2008;122:e115–e122

The American Academy of Allergy, Asthma & Immunology

The Adverse Reactions to Foods Committee of the American Academy of Allergy, Asthma & Immunology has provided similar advice and reported that “Data are now emerging in the literature that suggest the delayed introduction of solid foods may increase the risk of food allergy or eczema, and the early introduction of allergenic foods may prevent food allergy in infants/children”.

INTRODUCTION OF COMPLEMENTARY FOODS FOR PRIMARY PREVENTION OF ALLERGIC DISEASE IN THE CHILDREN

Timing of introduction

- *Between 4 and 6 months of age, complementary foods are necessary to support growth and to supplement nutritional needs. The introduction of complementary foods should be delayed, however, until the infant is able to sit with support and has sufficient head and neck control.*
- *The AAP recommends the introduction of complementary foods be delayed until the infant is at least 4 months old, but exclusive breast-feeding is preferred until 6 months of age.*
- *The expert panel from the European Academy of Allergology and Clinical Immunology recommends introduction of complementary foods between 4 and 6 months of age in breast-fed or formula-fed infants. The World Health Organization recommends exclusive breast-feeding for the first 6 months of life.*
- *In an unselected population of children, feeding solids before 4 months of age was associated with a higher incidence of atopic dermatitis, with an effect detected 10*

years later. No current evidence suggests that the delay of introduction of solid foods beyond 4 to 6 months of age will prevent allergic disease.

- *Delayed introduction of solid foods, especially the highly allergenic foods, may increase the risk of food allergy or eczema.*

[Fleischer DM, Spergel JM, Assa'ad AH, Pongratic JA. Primary prevention of allergic disease through nutritional interventions. *J Allergy Clin Immunol: In Practice* 2013;1:29-36.]

European Union EuroPrevall Program

Similar consensus is also evident through a recent European Union EuroPrevall state of the art paper which concludes that “there is little evidence supporting current recommendations on infant feeding with the objective of reducing the prevalence of allergic disease. Breastfeeding is widely regarded as the ideal food for infants, although its effect in the prevention of allergic diseases has not been conclusively demonstrated” and “The evidence supporting the delay of introduction of allergenic foods is contradictory. The evolution in our understanding of the development of oral mucosal tolerance in the first 12 months of life raises the possibility that early complementary food introduction may hasten and/or maintain tolerance rather than increase the risk of food allergy.”

[Grimshaw K. E. C. , Allen K., Edwards C.A., Beyer K., Boulay A., van der Aa L. B., Sprickelman A., Belohlavkova S., Clausen M., Dubakiene R., Duggan E., Reche M., Marino L. V., Nørhede P., Ogorodova L., Schoemaker A., Stanczyk-Przyłuska A., Szepfalusi Z., Vassilopoulou E., Veehof S. H. E., Vlieg-Boerstra B. J., Wjst M., Dubois A. E.. Infant feeding and allergy prevention: a review of current knowledge and recommendations. *A EuroPrevall state of the art paper. Allergy* 2009; 64: 1407–1416]

Recent clinical studies

A number of other more recent publications have also supported these conclusions, including the following:

- Nwaru BI, Takkinen HM, Niemelä O, Kaila M, Erkkola M, Ahonen S, Tuomi H, Haapala AM, Kenward MG, Pekkanen J, Lahesmaa R, Kere J, Simell O, Veijola R, Ilonen J, Hyöty H, Knip M, Virtanen SM. *Introduction of complementary foods in infancy and atopic sensitization at the age of 5 years: timing and food diversity in a Finnish birth cohort. Allergy.* 2013 Apr;68(4):507-16.

In a cohort of 3781 Finnish children data on the timing of infant feeding were collected up to the age of 2 years and serum IgE antibodies toward four food and four inhalant allergens were measured at the age of 5 years. Introduction of oats <5.1 months and barley <5.5 months decreased the risk of sensitization to wheat and egg allergens, and oats additionally associated with milk, timothy grass, and birch allergens. Introduction of rye <7.0 months decreased the risk of sensitization to birch allergen. Introduction of fish <6 months and egg ≤11 months decreased the risk of sensitization to all the specific allergens studied. The introduction of <3 food items at 3 months was associated with sensitization to wheat, timothy grass, and birch allergens; the introduction of 1-2 food items

at 4 months and ≤ 4 food items at 6 months was associated with all endpoints, but house dust mite. These results were particularly evident among high-risk children.

- Nwaru BI, Takkinen HM, Niemelä O, Kaila M, Erkkola M, Ahonen S, Haapala AM, Kenward MG, Pekkanen J, Laheesmaa R, Kere J, Simell O, Veijola R, Ilonen J, Hyöty H, Knip M, Virtanen SM. *Timing of infant feeding in relation to childhood asthma and allergic diseases*. J Allergy Clin Immunol. 2013 Jan;131(1):78-86.

For a cohort of 3781 consecutively born Finnish children, early introduction of wheat, rye, oats, and barley cereals; fish; and egg (relative to the timing of introduction of each food) seems to decrease the risk of asthma, allergic rhinitis, and atopic sensitization in childhood. Longer duration of total breast-feeding, rather than its exclusivity, was protective against the development of nonatopic but not atopic asthma, suggesting a potential differing effect of breast-feeding on different asthma phenotypes.

- Grimshaw KE, Maskell J, Oliver EM, Morris RC, Foote KD, Mills EN, Margetts BM, Roberts G. *Diet and food allergy development during infancy: Birth cohort study findings using prospective food diary data*. J Allergy Clin Immunol 2013, In Press.

In a study undertaken as a part of the EuroPreval program, in which principal component analysis was undertaken of diet diary data from 41 infants given a diagnosis of food allergy based on results of double-blind, placebo-controlled food challenges in the first 2 years of life and 82 age-matched control subjects, the control group was found to have a significantly different ongoing dietary pattern characterized by higher intake of fruits, vegetables, and home-prepared foods.

- Roduit C, Frei R, Loss G, Büchele G, Weber J, Depner M, Loeliger S, Dalphin ML, Roponen M, Hyvärinen A, Riedler J, Dalphin JC, Pekkanen J, von Mutius E, Braun-Fahrlander C, Lauener R; *Development of atopic dermatitis according to age of onset and association with early-life exposures*. J Allergy Clin Immunol. 2012 Jul;130(1):130-6.

In a study of 1041 children from Swiss rural environments the diversity of introduction of complementary food or yoghurt in the first year of life was associated with a reduction in the risk of having subsequent atopic dermatitis.

- Joseph CL, Ownby DR, Havstad SL, Woodcroft KJ, Wegienka G, MacKechnie H, Zoratti E, Peterson EL, Johnson CC. *Early complementary feeding and risk of food sensitization in a birth cohort*. J Allergy Clin Immunol. 2011 May; 127(5):1203-10.

For 594 US maternal-infant pairs analysed, complementary food introduced < 4 months was associated with a reduced risk of peanut (and perhaps egg) sensitization by age 2 to 3 years, for children with a parental history of asthma or allergy.

Alignment to NH&MRC and NZ MoH Guidelines

The Allergen Bureau understands that one of the drivers for regulatory change is to advocate consistency to local national infant feeding guidelines – NHMRC (for Australia) and NZ MoH (for New Zealand). The Allergen Bureau considers however that it is not relevant at this time to pursue this argument due to the fact there is a significant amount of research emerging with regard to the timing of the introduction of complimentary foods in the diet of infants.

Conclusion

The Allergen Bureau considers that the only valid regulatory option at this point in time is to maintain the status quo ‘From 4 months’ as the youngest minimum age labelling permitted on infant foods. An accumulating body of scientific evidence suggests a potential window of opportunity to reduce allergic responses in infants by the introduction, not avoidance, of solid foods, between 4 and 6 months of age.

References:

- Agostoni C, et al. Complementary feeding: a commentary by the ESPGHAN Committee on Nutrition *J Pediatr Gastroenterol Nutr* 2008; 46:99-110.
- Allen CW, Campbell DE, Kemp AS. Food allergy: Is strict avoidance the only answer? *Pediatr Allergy Immunol*. 2008 Sep 15.
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- Roduit C, Frei R, Loss G, Büchele G, Weber J, Depner M, Loeliger S, Dalphin ML, Roponen M, Hyvärinen A, Riedler J, Dalphin JC, Pekkanen J, von Mutius E, Braun-Fahrländer C, Lauener R; Development of atopic dermatitis according to age of onset and association with early-life exposures. *J Allergy Clin Immunol*. 2012 Jul;130(1):130-6.
- Sicherer SH, Burks AW. Maternal and infant diets for prevention of allergic diseases; Understanding menu changes in 2008. *J Allergy Clin Immunol* 2008; 122:29-33
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