Prevention of Food Allergies
What is the current best practice?

Evidence-based best practice has evolved regarding the prevention of food allergies. Delaying the introduction of ‘allergenic’ foods such as peanuts and tree nuts has not been shown to prevent allergies and may increase the risk of developing a food allergy. The previous practice of recommending avoidance of potentially allergenic foods during pregnancy and lactation has also been re-evaluated and revised by the Canadian Pediatric Society (CPS) and the Canadian Society of Allergy and Clinical Immunology (CSACI).

The CPS/CSACI statement indicates that best evidence now suggests that there is no benefit to delaying the introduction of solids, including potential allergenic (‘trigger’) foods, beyond six months of age to prevent food allergies from occurring.

Regardless of the optimal timing for introduction, current understanding of immunological tolerance suggests that regular, frequent oral consumption may be just as important as when a food is first introduced.

The statement advises mothers not to restrict their diets during pregnancy and lactation, it affirms the immunological role of breast milk and it offers formula guidance for non-breastfeeding mothers.

The CPS recommendations do not apply to infants with an established food allergy.


On November 17th, 2015 the Canadian Medical Association Journal released an article “Food Introduction and Allergy Prevention” reviewing past and current guidance including research findings of the British Learning Early About Peanut Allergy (LEAP). Results from the LEAP study indicate that the early introduction of peanut dramatically decreases the risk of developing a peanut allergy in high-risk infants. The American Academy of Pediatrics has developed interim guidance on how to apply the LEAP findings for high-risk infants: http://pediatrics.aappublications.org/content/136/3/600.

The LEAP study team randomly assigned 640 infants (with a mean age of 7.8±1.7 months) with severe eczema, egg allergy, or both, to either consume or avoid peanuts until 60 months of age. Half of the infants were randomized to be fed peanut protein regularly as a peanut snack and the other half avoided peanuts altogether. After five years, they found the children who were exposed to peanuts were 70-80% less likely to develop a peanut allergy.

How common are food allergies?
A food allergy is an adverse immune response that occurs every time a specific food is eaten. Self-reported food allergies affect about 7% of Canadians. The most common food allergens are cow’s milk, egg, peanut, tree nuts, soy, fish, shellfish, wheat, and sesame seeds. Most children tend to outgrow their cow’s milk, egg, soy, and wheat allergies. Peanut, tree nut, shellfish and fish allergies tend to be life-long and are less likely to resolve on their own.
Who is at risk for a food allergy?
Allergies tend to run in families. Infants who have a parent or sibling (first-degree relative) diagnosed with an allergic condition such as hay fever, asthma, eczema, or food allergy have a greater risk of developing a food allergy. However, research does show that infants from the general population could be at risk for the development of food allergies. Children with an allergy to one food are at higher risk of developing other food allergies.

What is the difference between allergic sensitization and tolerance?
Current understanding suggests that inducing immunological tolerance to food allergens is beneficial to allergy prevention.

Allergic sensitization is the priming of the immune system response to an allergen that leads to an allergic reaction. Tolerance exists when the maturing immune system recognizes foods as ‘foreign’ but safe. The introduction of potentially allergenic foods early on in life helps to promote the induction of immunologic tolerance. As the consumption and frequency of ingestion of a specific food increases the level of tolerance grows too. Recent research suggests that regular and frequent oral intake of newly introduced foods is important in maintaining immunologic tolerance.

When is it best to introduce solid food?
Currently the CPS/CSACI recommendations support introducing solids at about six months when an infant is physiologically and developmentally ready.

Signs of readiness for solid food include:
- Infant can sit up without support, has good control of neck muscles and can lean forward;
- Holds food in mouth without pushing it out on to tongue right away;
- Can let caregiver know when food is not wanted by leaning back or turning head away; and
- Opens mouth when sees food coming.

Although allergy prevention research suggests there is a likely a window of opportunity between 4 and 6 months for food allergy prevention, more research and guidance is needed before lowering the current recommendations for introduction of solid food at around 6 months of age. During the first year of life, while the immune system is still maturing, the introduction of potentially allergenic foods should occur when it is most optimal for the induction of immunologic tolerance. The benefits of this approach still need to be confirmed in light of the benefits of exclusive breastfeeding and the developmental and physiological readiness of an individual child.

What is recommended during pregnancy and lactation?
Avoiding highly allergenic foods during pregnancy and lactation is contraindicated unless the mother or baby is allergic to those foods. A Cochrane review found limited evidence that avoiding milk, egg, or other potential allergens during pregnancy reduced the risk of atopic eczema or asthma in infants.

All current recommendations favour breastfeeding over formula feeding for its overall health benefits. A single study suggesting exposure to cow’s milk proteins through formula feeding requires more research and is currently not recommended as a way of educating the immune system and preventing allergies.

What is the recommendation for non-breastfed infants?
The 2013 CPS/CSACI position statement concludes that no infant formula recommendation can be made for the prevention of food allergies due to the lack of evidence. For high risk non-breastfed infants, there may be some benefit with use of an extensively hydrolyzed casein formula in preventing atopic dermatitis. Extensively hydrolyzed casein formulas have been through a process of hydrolysis that denatures the peptide bonds in the milk protein which may aid digestion.
This summary of the revised evidence-based recommendations is intended to support the health of infants and children; it reflects key recommendations shared through Saskatchewan Health Region Child Health Clinics (CHCs) and supporting resources (see the links to resources at the end of this document).

For more information, please contact the FHHR Public Health Nutritionist, Melanie Warken, RD, at (306) 691-1536 or melanie.warken@fhhr.ca.

Links to Resources:

Canadian Medical Association Journal - *Food introduction and allergy prevention in infants*, November 2015  
[http://www.cmaj.ca/content/early/2015/10/19/cmaj.150364.full.pdf](http://www.cmaj.ca/content/early/2015/10/19/cmaj.150364.full.pdf)

The American Academy of Pediatrics - *Consensus Communication on Early Peanut Introduction and the Prevention of Peanut Allergy in High-risk Infants*  
[http://pediatrics.aappublications.org/content/136/3/600](http://pediatrics.aappublications.org/content/136/3/600)

Growing Up Healthy - booklets for parents on child development and care (Saskatchewan Health)  

Feeding Your Baby – brochures for parents (Saskatchewan Health)  

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Edmond S Chan, Carl Cumming, “Dietary exposures and allergy prevention in high-risk infants” A joint statement with the Canadian Society of Allergy and Clinical Immunology Canadian Paediatric Society Community Paediatrics Committee, Allergy Section Paediatric Child Health 2013; 18 (10): 545-9.

National Institute of Allergy and Infectious Diseases. (May 2011). “Guidelines for the Diagnosis and Management of Food Allergy in the United States: Summary for Patients, Families and Caregivers.”


