

Anaphylaxis Management

Anaphylaxis, a severe allergic reaction, is a growing public health issue. The most common causes are foods and insect stings. The most common food allergens are peanut, tree nuts (e.g. almonds, hazelnuts, pine nuts, etc.), milk, egg, fish and shellfish and to a lesser extent, sesame, soy, and wheat.

More than 600,000 Canadians (1 – 2% of the population) are thought to be at risk of anaphylaxis and the incidence of food allergy in children is believed to be rising. While anaphylaxis has the potential to cause death, fatalities are rare and usually avoidable. The key to remaining safe is to completely avoid food allergens. Education and awareness go a long way toward reducing the risk of accidental exposure.

Epinephrine is the medication of choice to treat anaphylaxis and persons at risk must carry it with them at all times. Most deaths are associated with the delay, underutilization or lack of epinephrine. Poor asthma control is also a factor. The age groups most at risk include older children, teens, and young adults.

The primary responsibility for allergen avoidance lies with the food-allergic person (or parent or caregiver in the case of younger children). As actual ingestion of the allergen poses the greatest risk, basic avoidance measures should include:

- Carrying an epinephrine auto-injector (e.g. EpiPen® or Twinject®) and wearing a medical identification bracelet (e.g. MedicAlert®)
- Always reading ingredient labels carefully
- No sharing of foods, utensils, or containers
- Washing hands before and after eating
- Ensuring adult supervision of young allergic children when they are eating

Managing a food allergy does not necessarily imply that others cannot eat or have access to the allergenic food when they are around the allergic person.

The important thing is that the allergic person does not ingest the food. Education, awareness, hygiene and emergency preparedness are the most important risk-reduction strategies in managing the risks associated with anaphylaxis.

The recently published national anaphylaxis guidelines, *Anaphylaxis in Schools & Other Settings*, by the Canadian Society of Allergy and Clinical Immunology (2005) encourages schools and other childcare facilities to have regular staff training and emergency protocols in place. (Sabrina's Law requires this in all Ontario public schools.)

Many daycares have policies that restrict certain foods since the children are too young to understand avoidance measures. Careful consideration should be given to the use of food allergens in activities, such as crafts, and in meal preparation. As very young children are often socialized to share with others and have a tendency to put their hands in their mouths, the risk factor for this age group could be high. Avoidance measures, often restricting the presence of allergenic foods such as peanut and nut products, would be appropriate in early childcare settings where there are peanut/nut-allergic children. Special accommodations should also be made to protect children with other food allergies as well.

Some airlines restrict peanut snacks because of the concern that the closed environment on the airplane will be contaminated by airborne peanut particles if all passengers are served these snacks and also because it is a difficult environment in which to treat a reaction.

Many elementary schools also have policies in place to reduce risk of accidental ingestion. Some schools choose to restrict an allergenic food, particularly in situations where children eat in their classrooms or without adult supervision. Others establish allergen-free eating zones, for example, peanut-free areas where peanut allergic children can eat. Some restrict all foods in an allergic child's classroom.

Such policies need to be individualized on the basis of the particular school setting and particular food allergies and should be part of an overall anaphylaxis education and emergency plan.

It is important to note that "allergy-safe" does not equal "allergen-free" as it is impossible to ensure complete compliance with food restrictions or to guarantee an allergen-free environment. "Allergy-safe" refers to a process of continually striving to attain a level of risk management and ongoing training and communication. The allergic person and any caregivers must always assume that the allergen could be present in the environment and behave accordingly, taking on the primary responsibility for allergen avoidance and being prepared to quickly treat an allergic reaction with epinephrine.

The over-riding goal is to teach children with life-threatening allergies to effectively assess and manage the risk of accidental exposure and to be prepared to react quickly if they have a reaction. With parental guidance and community support, allergic children must learn how to take on more responsibility as they mature. They should recognize that it is not possible or tenable to try to control all environments and that ongoing vigilance is required.

Allergens in Public Places

A commonly held belief is that efforts should be made to eliminate or restrict allergenic foods, such as peanut and nut products, from public venues including community and recreation centres and arenas, and entertainment facilities such as theatres. The argument is often made that these measures have been adopted by many daycares and elementary schools, so why not public areas?

It is important to recognize that in school and daycare settings the community is fairly stable, which facilitates the implementation and monitoring of food policies. However, in public venues the “community” is constantly changing, which makes it difficult (if not impossible) to ensure compliance with policies. As food restrictions in public venues may not be viewed as a practical or achievable option, key stakeholders should work together to develop policies which are both reasonable and practical, taking into consideration the following:

- What are the risks of accidental exposure?
- What is the ability of the allergic individual to self-protect?
- What can be done to educate the general public?
- What measures can be realistically put into place - what can and cannot be done?
- Are emergency protocols and staff training in place?

Policies in public places should reflect evidence-based risk analysis and should clearly define the roles and responsibilities of all parties involved. Many foods other than peanuts and nuts can cause allergic reactions and consideration must be given to ensure that measures safeguard all individuals at risk, while not unduly restricting the consumption of certain foods by the greater population.

It is important to recognize that even if accommodations for food-allergic individuals can be made in a particular setting, the risk of accidental exposure to an allergen may still exist. This underscores the need for ongoing self-management strategies and emergency preparedness, which are the most important safeguards.

Education of staff, coaches, security personnel and the general public is also key.

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This position statement has been prepared by the following national non-profit organizations with an interest in anaphylaxis (May 2006):

- Canadian Society of Allergy and Clinical Immunology
- Canadian Allergy, Asthma and Immunology Foundation
- Allergy/Asthma Information Association
- Anaphylaxis Canada
- Association québécoise des allergies alimentaires

For more information:

www.allergysafecommunities.ca

Anaphylaxis in Schools and Other Settings (2005)
Canadian Society of Allergy and Clinical Immunology
Aussi disponible en français.