Prevention and management of allergic reactions to food in child care centers and schools: Practice guidelines [1]

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Excerpt from Executive summary

Children with food allergy are at risk of allergic reactions that range from mild to potentially life-threatening. The condition can contribute to reduced quality of life and barriers to participation in day-to-day activities. These guidelines provide evidence-informed recommendations to help policymakers determine optimal strategies for managing food allergy in child care centers, primary/elementary schools, middle/junior high schools, and secondary/high schools. The guidelines are intended to be international in scope. However, they are most likely to be applicable in settings where food allergy is a recognized public health concern and local child care, school, and health care systems have the capacity to manage allergic reactions.

Use and adaptation

All of the recommendations in these guidelines are labeled "conditional." This implies that based on the limited evidence available, the majority of panel members think but are not certain that in most situations the benefits of following a recommendation would outweigh the harms and burdens of doing so. In some cases, policymakers might need to adapt the recommendations to fit local circumstances. Any adaptations should take into account the available evidence and anticipated effects of implementing an intervention in a specific context.

Methods

These guidelines were developed by an international panel of key stakeholders, including health professionals, school personnel, and parents, with support from a methodology team. The authors followed the Grading of Recommendations Assessment, Development, and Evaluation approach to review the risk of allergic events in child care centers and schools and develop evidence-informed recommendations related to the following interventions: food allergy training for personnel; allergy action plans and protocols for managing allergic reactions; using epinephrine to treat allergic reactions; stocking unassigned epinephrine (ie, not prescribed to specific students); site-wide food prohibitions (eg, nut-free schools); allergen-restricted zones (eg, milk-free classrooms or tables).

Policymakers might also consider other interventions to manage food allergy. However, those interventions fall outside the scope of these guidelines.

Key findings

Based on current median reported rates of allergic events in child care centers and schools, we found that if the average school had 350 students: 1.3 allergic reactions of any severity would occur on average at each school per year; anaphylaxis would occur in approximately 1 in 15 schools per year; epinephrine would be administered in about 1 in 24 schools per year. On average, researchers report that roughly 1 in 10 allergic reactions and cases of anaphylaxis among children occur at child care centers or schools. Most reactions (90%) occur elsewhere.

We found no studies that estimated the risk of death from anaphylaxis in child care centers or schools. However, based on registries and death certificates, death from food-induced anaphylaxis is rare in any setting.

Very little evidence is available on the effects of selected interventions on the risk of allergic events. Studies suggest that allergy training may help improve knowledge and skills among child care and school personnel. However, more research is needed to learn how long these improvements last, how they affect outcomes in students, and whether allergy action plans provide additional benefits beyond training alone. When anaphylaxis occurs, epinephrine is the first-line recommended treatment. We found no evidence to support the preemptive use of epinephrine when signs or symptoms of anaphylaxis have not yet developed. Stock epinephrine may provide a treatment option when someone experiences anaphylaxis and does not have personal epinephrine available to treat it. However, the cost-effectiveness and feasibility of stocking epinephrine varies depending on the specific jurisdiction and approach taken. Studies have not consistently found that site-wide food prohibitions or allergen-restricted zones reduce the risk of allergic reactions.

Top-level recommendations

1. We suggest that child care centers and schools implement training for teachers and other personnel in the prevention, recognition, and treatment of allergic reactions to food. (Conditional recommendation; very low certainty of evidence.)

2. We suggest that child care centers and schools require all parents of students with diagnosed food allergy to provide an up-to-date allergy action plan. (Conditional recommendation; very low certainty of evidence.)

3. We suggest that child care centers and schools implement site-wide protocols for the management of suspected allergic reactions to food in individuals with no allergy action plans on file. (Conditional recommendation; very low certainty of evidence.)

4. We suggest that child care and school personnel use epinephrine only when they suspect that someone is experiencing anaphylaxis, rather than use epinephrine as the first universal treatment for all suspected allergic reactions. (Conditional recommendation; very low certainty of evidence.) For special circumstances, see the full guidelines.

5. We suggest that child care and school personnel do not preemptively administer epinephrine in cases when no signs or symptoms of an allergic reaction have developed, even if a student has eaten a food to which they have a known allergy or history of anaphylaxis. (Conditional recommendation; very low certainty of evidence.) For special circumstances, see the full guidelines.

6. When laws permit, we suggest that child care centers and schools stock unassigned epinephrine autoinjectors on site, instead of requiring students with allergy to submit personal autoinjectors to be stored on site for designated at-school use. (Conditional recommendation; very low certainty of evidence.) For special circumstances, see the full guidelines.

7. We suggest that child care centers and schools do not prohibit specific foods site-wide. (Conditional recommendation; very low certainty of evidence.)

8. We suggest that child care centers and schools do not establish allergen-restricted zones, except in the special circumstances identified in the full guidelines. (Conditional recommendation; very low certainty of evidence.)

Related link: Food allergy training, action plans suggested for schools, day care [4]
Region: International [5]
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Links
[1] https://childcarecanada.org/documents/research-policy-practice/21/06/prevention-and-management-allergic-reactions-food-child [2] https://www.jacionline.org/article/S0091-6749(21)00223-2/fulltext [3] https://www.jacionline.org/action/showPdf?pii=S0091-6749%2821%2900223-2 [4] https://childcarecanada.org/documents/child-care-news/21/06/food-allergy-training-action-plans-suggested-schools-day-care [5] https://childcarecanada.org/category/region/international [6] https://childcarecanada.org/category/tags/health-and-safety [7] https://childcarecanada.org/category/tags/policy [8] https://childcarecanada.org/category/tags/school-system