



# NATIONAL FOOD ALLERGY ACTION PLAN

## CHARTING THE PATH FORWARD

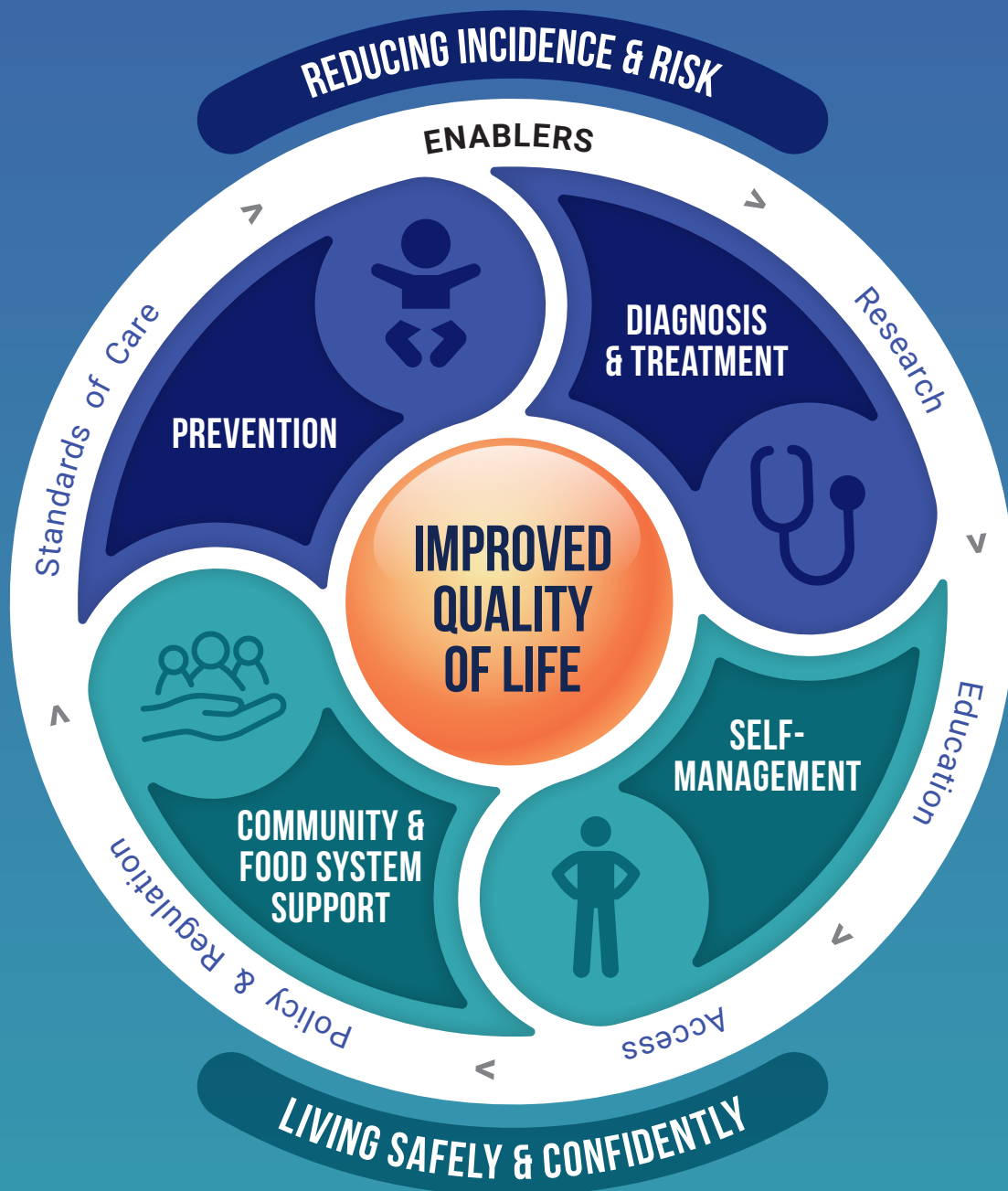
*It's time to act.*

*Now is the time to **reduce the impact** of food allergy and **improve the quality of life** for the more than 2.6M Canadians living with this medical condition.*

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# FRAMEWORK FOR THE NATIONAL FOOD ALLERGY ACTION PLAN



# WHY IS A NATIONAL FOOD ALLERGY ACTION PLAN IMPORTANT FOR CANADIANS?

*Food allergy directly affects 7.5% of the population, representing over 2.6M Canadians;<sup>1</sup> however, its impact is far greater with an estimated 50% of Canadian households being affected.<sup>2</sup> The impact is particularly significant for families who have children with food allergy as there are increased economic and psychosocial burdens.*

While recent research efforts have improved our knowledge of food allergy and provided some insights on prevention, significant gaps still exist in our understanding of the causes, mechanisms underlying life-long persistence, and possible treatments. There is no cure for food allergy or easy solution for its ongoing management.

The demand for allergy care is growing. Access to appropriate and timely healthcare and patient education and support is a challenge for many, particularly in rural and remote areas. The combination of increased patient demand and the shortage of physicians able to accurately diagnose and manage food allergy has led to the growth of unproven and unconventional diagnostic techniques and treatments, putting patients at even greater risk.

Canadians with food allergy are reliant on accurate ingredient information from commercial food providers in order to avoid what they are allergic to (their allergens) and minimize having an allergic reaction. However, there are many gaps in our current food ecosystem that make this difficult. Compounding this is the inconsistent understanding by the general public that food allergy is a serious medical condition which requires those affected to strictly avoid their allergens to prevent a potentially life-threatening reaction.

To address these issues, Food Allergy Canada and the Canadian Society of Allergy and Clinical Immunology (CSACI) have joined together to develop a clear national action plan that effectively communicates key priorities to stakeholders.



## NATIONAL FOOD ALLERGY ACTION PLAN FOR CANADIANS

The development and implementation of a national action plan is the most efficient way to address the significant public health issues outlined as it engages stakeholders in a collaborative way toward a shared vision. The plan will deliver an effective and coordinated framework to guide future actions to improve the quality of life of those impacted and deliver significant health and economic benefits.

The recommended priorities are the result of ongoing consultations amongst healthcare professionals, patients, and industry. We have also consulted with our counterparts in Australia who have seen significant progress behind a National Allergy Strategy that enjoys strong government support.

Research is recognized as a critical enabler of the National Food Allergy Action Plan. The contributions of research generated through the AllerGen NCE have been instrumental in forming the recommendations included in the plan. While the 15-year funding of AllerGen has come to an end, the National Food Allergy Action Plan is well positioned to capitalize on the research network created by AllerGen and support the continued contributions of the research community in an effort to advance the prevention, diagnosis, and treatment of food allergy. Continued engagement with the research community is an integral part of this plan.

We would like to formally recognize and thank Dr. Judah Denburg, the AllerGen team, and network of investigators for creating this platform to be built on. For more details on the AllerGen contribution to food allergy see page 15.

This effort also integrates with the Government of Canada's focus on the healthy eating strategy and modernization of regulations, with the additional lens of safe eating and interventions required to prevent disease development.

The National Food Allergy Action Plan seeks to reduce the impact of food allergy and improve the quality of life of Canadians living with food allergy by focusing on three broad priorities:

- 1 *Reducing allergy incidence by supporting measures shown to be effective in preventing the development of food allergy.*
- 2 *Improving access to accurate and evidence-based diagnosis, as well as treatments.*
- 3 *Helping Canadians with food allergy live safely and confidently through education, policy, and tools that facilitate self-management and build community awareness and food system support.*

These priorities are empowered by expanded research and education efforts, improved access to care, more consistent standards of care, and supportive policy and regulation.

## ADOPTION OF THE NATIONAL FOOD ALLERGY ACTION PLAN WILL:

- Build awareness of food allergy as both a common and serious medical condition and an important public health concern with multiple stakeholders, including all levels of government, the education sector, food manufacturing, and foodservice industries.
- Drive consistency in education, training, and standards of care.
- Provide direction for policy and regulation.
- Focus attention and research efforts on key food allergy issues.

Supporting this national plan, Food Allergy Canada and the CSACI will be engaging multi-stakeholder groups to define specific elements of the plan and timelines for implementation.

We look forward to working with all stakeholders to discuss this action plan and engaging their support and advocacy to improve the quality of life for millions of Canadians affected by food allergy.

Sincerely,



Jennifer Gerdt, Executive Director  
Food Allergy Canada



Dr. Harold Kim, President  
CSACI



To join our efforts, contact  
[nationalplan@foodallergycanada.ca](mailto:nationalplan@foodallergycanada.ca)

# THE CASE FOR CHANGE

*The World Health Organization defines health as “a state of complete physical, mental and social well-being and not merely the absence of disease”.<sup>3</sup>*

## SO, IMAGINE:



You are a parent and your child with milk allergy is attending their first day of school. You have been told that the school has practices in place to prevent allergic reactions, but you are unsure how consistently they are applied.



You have a fish allergy and when you eat out, you always ask the wait staff about ingredients and how the food is prepared, but your waiter tonight seems confused by your questions.



The label on the product you are looking at in the grocery store states “may contain egg”. What does that really mean? What is the level of risk?



You think you may have had an allergic reaction to something you ate, but there is no allergist in your city and your family doctor will only perform a blood test. You have to travel to another city to meet with an allergist in 9-12 months to confirm if you actually have a food allergy.

*These are examples of the kinds of questions and stresses that impact 2.6M Canadians and their families daily as the consequences of an unintended exposure to their allergen can be severe and potentially life-threatening.*

Challenges in accurately diagnosing allergy, accessing appropriate support and care, and the inability to predict the severity of a reaction, all translate to potentially heightened levels of anxiety. This is supported by Food Allergy Canada research, where almost half of the respondents described their anxiety level as 8 out of 10 or higher.<sup>4</sup>

*“It requires **continuous** parental **vigilance** to manage a serious condition that is invisible to the outside world; it has an **unpredictable**, relenting and remitting course; and it is **life-threatening** with no known cure. These factors are compounded by the **ubiquitous nature of food**. Moreover, the **under-recognized** nature of food allergy often means such stressors often take place in the face of **public and professional insensitivity**.”<sup>5</sup>*

## MISSION

**TO HELP CANADIANS WITH  
FOOD ALLERGY LIVE SAFELY &  
CONFIDENTLY, & ADVANCE THE  
PREVENTION, DIAGNOSIS &  
TREATMENT OF FOOD ALLERGY.**

## GUIDING PRINCIPLES

### PATIENT-CENTRED

Any plan element, measure or program concerning food allergy needs to be grounded in the patients' perspectives.

### EQUITY OF ACCESS

Every Canadian with a food allergy no matter where he/she lives, or what their income is, should have access to high quality care and services.

### EVIDENCE-BASED

Recommendations and standards of care are based in science and research.

### COLLABORATION AND COORDINATION

Collaboration and coordination of efforts are essential given the many stakeholders that impact the quality of life of people living with food allergy.

Governments, patients, healthcare professionals, researchers, the educational sector, food-related industries, and the pharmaceutical industry must work together to exchange information, experiences and expertise with the goal of reducing the impact of food allergy on individuals at-risk and the broader community.



# PREVENTION

## REDUCING INCIDENCE & RISK OF FOOD ALLERGY



*Evidence-based interventions to prevent the development of food allergy & the subsequent negative impact on quality of life*



### WHY IS THIS IMPORTANT?

*Prevention is the most effective way to reduce the incidence of food allergy.*

Historically, parents have been given the advice of delaying the introduction of allergenic foods to the age of three. However, recent (2019) guidance from the Canadian Paediatric Society, supported by Canadian and American Allergy Societies, recommends a different approach; the early introduction of some allergenic foods around six months, based on evidence that this can prevent the development of allergy in most high-risk children.

More research across a broader range of allergenic foods is still required to further substantiate and reinforce this guidance as current research results focused primarily on peanut and cooked egg. However, such a fundamental shift in the approach to prevention requires significant efforts to educate parents to avoid confusion/anxiety and develop new standards of care among the many healthcare professionals involved in early infant care. This communication challenge is complicated by the number of healthcare professionals that may interact with the parents of infants; primary care, obstetricians, midwives, pediatricians, lactation consultants, hospital staff, public health nurses, for example.



### WHAT IS OUR VISION OF SUCCESS?

- New and expectant parents receive consistent, evidence-based, and easy to understand advice on food allergy prevention from their healthcare professionals and from easily accessible education materials.
- Sustainable funding support to identify additional research into food allergy prevention approaches.



### KEY AREAS OF FOCUS:

- Developing and disseminating evidence-based, early infant feeding educational tools.
- Educating healthcare professionals to ensure all Canadians receive consistent, evidence-based infant feeding advice for the prevention of food allergy.
- Securing agreement from government and public health agencies to support guidance for early introduction of allergenic foods, and to integrate them into other infant health focused programs and policies.
- Ensuring funding support by government agencies for ongoing research into effective food allergy prevention approaches.



*"I am anaphylactic to multiple foods. I am terrified to feed my five-month-old any allergens – yet, my doctors dismissed my concerns. I never wanted to feed him anything before six months, let alone top allergens, as I'm exclusively breastfeeding. **I'm pretty frustrated by the lack of support provided.** I think my son will or won't be allergic whether or not I feed him these foods at specific times. I just don't want to feed him without proper support in place."*





# DIAGNOSIS & TREATMENT

## REDUCING INCIDENCE & RISK OF FOOD ALLERGY



*Access to accurate, evidence-based & timely diagnosis & treatment*



### WHY IS THIS IMPORTANT?

*Receiving an accurate food allergy diagnosis can be challenging.*

There is public confusion on what constitutes a true food allergy versus other food intolerances/sensitivities, contributing to misdiagnoses and public insensitivity to this medical condition. Current diagnostic tests can be misleading to those who lack expertise. Patients seeking an accurate diagnosis may struggle to get timely access to an allergist due to shortages in many areas (see map of allergists/province in the appendices), and long wait times. Faced with these challenges, some Canadians are turning to unscientific and unvalidated diagnostic techniques that are commercially available outside the public health system. These are not only costly but result in misdiagnosis, leading to risk, unnecessary anxiety, and quality of life burdens.

There is no cure for food allergy and until now there have been no treatment options that lessen the impact of food allergy. More recently, oral immunotherapy (OIT) has emerged as a treatment, carried out predominantly in research settings. In its current form, this treatment focuses on helping to desensitize individuals so they can tolerate a small amount of their allergen. OIT entails feeding them progressively increasing amounts of their allergen under supervision until they reach a determined maximum, their maintenance dose. However, more effort is required to define the best candidates for this therapy, address adverse effects, shorten the treatment time and improve its long-term safety and efficacy. There is significant patient interest in immunotherapy reflecting the hope the community has for a possible treatment option.

Importantly, much more research is required to identify additional therapeutic targets beyond immunotherapy, while also continuing research towards a cure.



### WHAT IS OUR VISION OF SUCCESS?

- Timely access to evidence-based diagnosis and treatment of food allergy, while research for a cure continues.



### KEY AREAS OF FOCUS:

- Providing healthcare education and guidance on proper diagnosis so that those with a possible allergy are referred to specialists.
- Increasing access to specialists, addressing barriers to proper diagnosis and management, and enabling access to appropriate information in advance of patient appointments.
- Developing web-based or tele-health delivery of patient education and support to help Canadians assess the likelihood of true allergy, and education on how to live with a suspected food allergy while waiting to see an allergist.
- Government support for research into improved diagnostics, treatment approaches, and finding a cure.



*"I was diagnosed via skin prick tests at the age of three with multiple food allergies and have been avoiding eggs, sesame, seafood, tree nuts and peanuts. It's a lot to manage. At 16, my allergist thought I might not be allergic to tree nuts and referred me to the hospital for an oral food challenge. **While it took almost a year to finally get in (and I had to overcome my fear of reacting), I discovered that I'm no longer (or perhaps never was) allergic to tree nuts!** You can't imagine the relief to have a few things taken off my list and open a whole new set of food options."*



# SELF-MANAGEMENT

HELPING CANADIANS LIVE SAFELY & CONFIDENTLY WITH FOOD ALLERGY



*Effectively managing food allergy while engaging in a full & active life*



## WHY IS THIS IMPORTANT?

*Once diagnosed, living with a food allergy requires daily vigilance in avoiding the allergen in order to prevent reactions, and having the knowledge, tools and confidence to recognize and properly treat a reaction if one occurs.*

The approach to navigate food allergy continually changes as individuals living with food allergy age and pass through different life stages and events, e.g. going to school, living independently, travelling. For young people, this also means a shift in responsibility and increasingly taking on managing their allergy themselves. The challenges relate not only to the medical elements of living with a food allergy, but also the efforts to remain included in the broader community and to live a full and active life.

Research highlights many gaps in effective self-management. Examples include inconsistency in avoiding allergens, including not reading or understanding food labelling and making assumptions on ingredient information, risk-taking behaviours of teens/young adults, and failure or inhibition to disclose food allergy to foodservice when making food choices. The treatment of anaphylaxis is sub-optimal with epinephrine being underutilized and confusion on the role of antihistamines. Consistent access to epinephrine auto-injectors (EAs), the first-line treatment for anaphylaxis, is a current vulnerability. In order to ensure patients always have access to epinephrine, there needs to be a minimum of two suppliers of this life-saving medication in Canada.

Current support programs are also fragmented and do not fully address the psychosocial challenges of living with a food allergy, like how to deal with food allergy bullying, or the emotional impact of having a reaction.



## WHAT IS OUR VISION OF SUCCESS?

- Individuals and their families confidently and effectively live with food allergy, avoiding adverse reactions. Reactions, if they occur, are optimally treated.
- Individuals have access to a broad range of support at every stage of life, allowing full engagement in the community and a full and active life.



## KEY AREAS OF FOCUS:

- Creating and executing a branded, uniform approach that becomes the standard of care for supporting individuals living with food allergy from diagnosis through all life stages.
- Engaging government to ensure consistent and affordable supply of EAs in Canada.
- Increasing awareness and understanding of food allergy amongst healthcare professionals engaged in psychosocial support and developing programs to support impacted individuals and families.
- Ensuring funding support by government agencies for research into the issues in self-management, as well as understanding and addressing the psychosocial impacts of food allergy.

“

*“First, we worry about **teaching others** (because the child can’t self-advocate or self-moderate), then the worries are about **transitions** as the child starts to gain independence, then we worry about **food labelling** as the child is fully independent and must make careful choices.”*

*“I was the only kid with a food allergy, everybody knew who I was, what my allergies were and that **I was the reason they couldn’t have peanut butter cups or Reese’s Pieces** in class.”*

”

# COMMUNITY & FOOD SYSTEM SUPPORT

## HELPING CANADIANS LIVE SAFELY & CONFIDENTLY WITH FOOD ALLERGY



### Well informed communities & broad-based food system support



#### WHY IS THIS IMPORTANT?

*Effective self-management of food allergy is critical but not sufficient to minimize the quality of life burdens.*

Food choices occur in many different situations; in grocery stores, schools, restaurants, the homes of friends and others, for example.

There is a lack of understanding of food allergy issues among the general public including the potential for life-threatening reactions. A food allergy is a medical diagnosis, not a choice, and those living with food allergy should not be judged nor stigmatized. One-fifth of children with food allergy report having experienced bullying.<sup>6</sup> Additionally, the increasing portrayal of food allergy in film and television in a humorous and inaccurate context is problematic. Research concludes that this can reduce perceptions of the seriousness of food allergy and impact support for associated public health policies to manage the risk.<sup>7</sup>

Those with food allergy rely on accurate and relevant ingredient information from commercial providers of food, and on community support to mitigate risks of unintended exposure. While there have been significant improvements over the past 10 years in the labelling of pre-packaged foods in Canada, there are still gaps in our current food ecosystem.

For example, food allergen labelling regulations do not extend to non pre-packaged foods (e.g. restaurants, bulk foods). Additionally, precautionary allergen labelling (PAL) in the form of "may contain" statements is not delivering against its intended purpose to advise consumers of potential risk. While limited guidance is provided on how and when PAL should be considered for pre-packaged foods, research shows both overuse and misuse by manufacturers thereby unnecessarily limiting food choice or exposing risk when allergens are detected at a high enough level that they should be listed as an ingredient. Furthermore, PAL statements are now being widely adopted outside their intended scope, specifically in retail operations, prepared bulk foods and foodservice, with continued lack of clarity on their meaning and lack of regulation/enforcement on their use. Compounding this is behaviour by some consumers who question the validity of PAL and choose to ignore them.

Additionally, food trends should be assessed on their potential unintended consequences for those with food allergy and plans to mitigate risk need to be proactively developed. Plant-based diets, online ordering and other trends focused on convenient food options are growing despite unregulated labelling. Also, with trends toward a reduction in packaging, and the possibility of reusable and/or biodegradable containers, there may be potential risks for the food allergy community.

Beyond access to accurate ingredient information, the fragmented nature of the foodservice industry, along with the very high turnover rates of foodservice employees leads to inconsistent approaches to risk management and challenges in educating employees.



#### WHAT IS OUR VISION OF SUCCESS?

- Accessible and accurate ingredient information to enable safe food choices for individuals with food allergy and their families.
- Recognition of food allergy as an important safety issue by stakeholders throughout all food-related industries and consistent application of proven practices to prevent allergic reactions.
- Empathy and understanding by the community at large that an individual with a food allergy can potentially have a life-threatening reaction if they ingest the food to which they are allergic.



#### KEY AREAS OF FOCUS:

- Partnering with government and industry to develop policies and guidelines that enable broad-based access to accurate ingredient information and safe food options reflective of emerging consumer trends in food and food industries.
- Improved training and risk management practices in the foodservice sector.
- Educational campaigns to build community knowledge, acceptance and support for the prevention and treatment of reactions.
- Improved community management of reactions and access to epinephrine, e.g. through stock epinephrine in public places (stock epinephrine is an EAI, such as EpiPen®, that is not prescribed to a specific person and can be used in an emergency).



*"Lack of understanding. **Feeling like an inconvenience.** Intolerant people, especially parents of school mates. Made to feel like an overreacting, overprotective parent."*

*"Restaurant chains should have an obligation to know what ingredients are in the food they serve. Eating out is one of my biggest frustrations mainly because **when I ask if it's safe to eat something, I'm told 'I don't know.'** That is not acceptable."*

# ENABLERS OF THE NATIONAL FOOD ALLERGY ACTION PLAN

## CONSISTENT STANDARDS OF CARE

- For prevention, diagnosis, treatment and appropriate referral
- For allergists and other healthcare professionals

## IMPROVED ACCESS TO CARE

- Increased number of allergists
- Timely access to allergists
- Potential for tele-health and new technologies
- Multi-disciplinary/shared-care models

## FOCUSED INVESTMENT IN EDUCATION & RESEARCH

- Accessible, consistent and evidence-based education tools for all stakeholders, with a focus on branded, uniform programs that represent the standard of care
- Research to improve our understanding of food allergy and explore new and emerging therapies, while researching for a cure

## POLICY & REGULATION

- Engagement and support from all levels of government



# SUPPORT WE ARE LOOKING FOR FROM OUR GOVERNMENT PARTNERS

## FUNDING & RECOGNITION SUPPORT

- Recognition of food allergy as a public health priority
- Recognition of quality of life burdens as well as economic burdens in decisions on reimbursement for diagnostics, approved treatments, and therapies
- Funding for a branded program to support self-management
- Funding for education and communication efforts to support prevention approaches
- Funding to support research into improved understanding of food allergy and potential therapies
- Funding to ensure EALs are affordable to individuals who need them

## POLICY SUPPORT

- Policy change to ensure consistent access to EALs
- Policy changes to drive safer labelling and address current exemptions
- Policy change to integrate food allergy prevention into well baby visits
- Policy change to address food allergen management in the foodservice sector



## NEXT STEPS

We will continue our ongoing focus in finalizing and implementing the National Food Allergy Action Plan.

Our next steps include:

- Continuing to consult with key stakeholders in government, education, food manufacturing and foodservice
- Developing detailed actions for implementation via multi-stakeholder workshops

We look forward to working with key stakeholders to eliminate the impact of food allergy and improve the quality of life of all Canadians affected by this medical condition.

To join our efforts, contact  
**[nationalplan@foodallergyca.ca](mailto:nationalplan@foodallergyca.ca)**

## FOOD ALLERGY DEFINED

*What is the medical condition and how is it managed?*

- Food allergy is an abnormal immune response to food. It occurs when the body's immune system mistakenly treats a particular food protein as if it's harmful and causes an allergic reaction.
- Anaphylaxis is a "serious allergic reaction that is rapid in onset and may cause death."<sup>8</sup> While fatalities are rare, anaphylaxis must always be considered a medical emergency requiring immediate treatment. Since it is unpredictable and potentially fatal, prompt recognition and treatment are vital to maximize a positive outcome.
- Epinephrine is universally recommended as the first-line treatment for anaphylaxis.
- There is no cure for food allergy. Avoiding the allergenic food is required to prevent a reaction.



## WHAT CAUSES FOOD ALLERGY?

*The causes of food allergy are not known, but research suggests that a mix of genetic and environmental influences are responsible.*

## WHAT IS REQUIRED FOR CANADIANS WITH FOOD ALLERGY TO LIVE SAFELY & CONFIDENTLY?

- An accurate diagnosis
- Knowledge on how to prevent reactions and being diligent about avoiding them
- Access to epinephrine auto-injectors for the treatment of anaphylaxis
- Understanding of signs and symptoms and able to confidently treat a reaction
- Given the ubiquity of food in our daily lives, informed communities who support those with food allergy to prevent and possibly treat reactions

## FOOD ALLERGY FACTS

There is no cure for food allergy. Avoiding the allergenic food is required to prevent a reaction.

More than 2.6 million Canadians are affected by food allergy.<sup>1</sup>

Almost 500,000 Canadian children under 18 years of age have food allergy.<sup>1</sup>

1-in-2 Canadian households are impacted either directly or indirectly by food allergy.<sup>2</sup>

Food allergy is recognized as a disability from a human rights perspective.

A person can become allergic to almost any food; and some people are allergic to multiple foods.

A food allergy can develop in an individual at any age.

The severity of an allergic reaction to a food is unpredictable. Reactions can vary from mild to severe, and the severity of reactions in the same individual may be different each time.

One common element in food allergy is that it can result in a potentially serious allergic reaction.

While fatalities are rare, anaphylaxis must always be considered a medical emergency requiring immediate treatment.

## BREAKDOWN OF ALLERGISTS ACROSS CANADA



The number of allergists and allergists/100K population provided by the Canadian Medical Association's Clinical Immunology/Allergy Profile, 2018.





# FOOD ALLERGY RESEARCH IN CANADA: WHAT HAVE WE LEARNED?

*Over the past 15 years, Canadian researchers linked to the AllerGen Networks of Centres of Excellence have made significant contributions to what is known about the causes and consequences of food allergy. These insights have important implications for national food allergy management policy and practice.*



## FOOD ALLERGY RISK & DEVELOPMENT

- Genetic studies identified several genes associated with peanut allergy, including HLA (immune recognition)<sup>1</sup>, EMSY (gene modifications)<sup>2</sup>, and filaggrin (skin function)<sup>3</sup>
- Studies in mice revealed mechanisms of the immune system that are involved in the development of sensitization<sup>4-6</sup> or tolerance to food<sup>7</sup>, and the persistence of lifelong allergies<sup>8</sup>
- Risk factors that make children more likely or less likely to develop a food allergy: More likely – asthma or hay fever, eczema, family members with allergy; Less likely – pets or siblings in the home<sup>9</sup>, early introduction of allergenic foods<sup>10</sup>, mothers who consume allergenic foods while breastfeeding<sup>11</sup>

## PREVALENCE OF FOOD ALLERGIES IN CANADA

- 7.5% of Canadians report having one or more food allergy<sup>12</sup>, although Canadians estimate this number to be as great as 20%<sup>13</sup>
- 50% of Canadian households are affected, directly or indirectly, by food allergies<sup>13</sup>
- Some of the most common self-reported food allergies are peanut (1%), tree nut (1.2%), fish (0.5%), shellfish (1.6%) and sesame (0.1%)<sup>14</sup>
- Allergies to peanut, tree nut, and sesame are more common in children while allergies to fish and shellfish are more common in adults<sup>15</sup>
- Children born in Canada have more food allergies than children born elsewhere<sup>15</sup>
- Food allergies are less common in Canadian Indigenous populations, but these groups also experience more barriers in accessing health care related to food allergies<sup>16</sup>

## EXPERIENCES OF FOOD ALLERGY IN CANADA

- Students with food allergies experience social exclusion and stigma in schools<sup>17</sup>
- Food allergy policies and procedures vary significantly among school boards<sup>18</sup>
- Post-secondary students face unique challenges as they transition into school environments where they are less supported, and social pressure results in risk-taking behaviours<sup>19</sup>
- Low-income families face financial barriers to obtaining allergy medications, as well as allergen-free food in grocery stores and food banks<sup>20</sup>
- Newcomers to Canada are often not familiar with food allergies, and those who have food allergies may be met with skepticism and disbelief about their condition<sup>21-22</sup>

## ANAPHYLAXIS MANAGEMENT IN CANADA

- Anaphylaxis due to food allergy accounts for a substantial amount of emergency room visits<sup>23</sup>
- Anaphylactic reactions in children occur even in the presence of adult supervision, and many of these instances are due to issues reading food labels<sup>24</sup>
- Risk of death due to anaphylaxis is increased for teenagers, those allergic to peanut, if epinephrine administration is delayed, or food is consumed outside the home<sup>25</sup>
- Despite guidelines that epinephrine should be given at the first signs of an allergic reaction, epinephrine is underused by caregivers<sup>26</sup>, paramedics<sup>27</sup>, and other health care professionals<sup>26</sup>
- Reasons for not administering epinephrine include fear of hurting the person, or fear of using the auto-injector incorrectly<sup>28</sup>
- Less than half of individuals with a probable food allergy have access to an epinephrine auto-injector<sup>29</sup>, and Canadians with low education are even less likely to be prescribed one<sup>30</sup>
- Anaphylaxis guidelines require updating to ensure that appropriate treatments such as epinephrine are delivered promptly, rather than other medications<sup>31</sup>

## EMERGING TREATMENTS FOR FOOD ALLERGY

- Preliminary studies suggest that oral immunotherapy for multiple allergens (rush OIT) may be a feasible, effective, and safe way to treat individuals with multiple food allergies<sup>32-33</sup>
- In addition to benefits for food allergic patients, oral immunotherapy may also improve quality of life for caregivers dealing with the daily stresses of living with food allergies<sup>34-35</sup>

## FOOD ALLERGEN LABELLING IN CANADA

- Food allergen labelling impacts food purchasing decisions by Canadian households both directly and indirectly affected by food allergy<sup>36</sup>
- Canadian consumers recommend improving food allergen labelling by standardizing precautionary labels and improving public education around these practices<sup>37</sup>

## APPENDICES

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## FOOD ALLERGY FAQS

### 1 HOW DOES A FOOD ALLERGY DIFFER FROM A FOOD INTOLERANCE?

A food allergy involves the immune system and symptoms can be life-threatening. Food intolerance is a nonspecific term that may refer to any number of adverse symptoms an individual may have in response to the ingestion of that food. It does not involve the immune system. For example, lactose intolerance is the inability to digest and absorb lactose in dairy products due to a deficiency in the lactase enzyme. The symptoms of food intolerance affect the gastrointestinal tract and can cause discomfort but are generally not life-threatening.

### 2 WHAT ARE THE PRIORITY FOOD ALLERGENS IN CANADA?

Health Canada defines the priority food allergens as: peanut, tree nuts, sesame, milk, egg, fish, crustaceans (e.g. lobster, shrimp) and molluscs (e.g. scallops, clams), soy, wheat and triticale, and mustard. A person can become allergic to almost any food, but these are the most common. Health Canada's food labelling regulations require the inclusion of the common name of these priority allergens as well as gluten sources and added sulphites on a food label. [Read more about priority food allergens.](#)

### 3 WHAT IS ANAPHYLAXIS?

Anaphylaxis (pronounced anna-fill-axis) is a "serious allergic reaction that is rapid in onset and may cause death".<sup>8</sup> Individuals who have IgE-mediated food allergy and are at risk of anaphylaxis should carry an epinephrine auto-injector (such as EpiPen®) which contains life-saving medication to treat an allergic reaction.

### 4 WHAT ARE THE SYMPTOMS OF ANAPHYLAXIS?

Symptoms of anaphylaxis generally include two or more of these body systems:

- **Skin:** hives, swelling (face, lips, tongue), itching, warmth, redness
- **Respiratory (breathing):** coughing, wheezing, shortness of breath, chest pain/tightness, throat tightness, hoarse voice, nasal congestion or hay fever-like symptoms (runny itchy nose and watery eyes, sneezing), trouble swallowing
- **Gastrointestinal (stomach):** nausea, pain/cramps, vomiting, diarrhea
- **Cardiovascular (heart):** paler than normal skin colour/blue colour, weak pulse, passing out, dizziness or lightheadedness, shock
- **Other:** anxiety, sense of doom (the feeling that something bad is about to happen), headache, uterine cramps, metallic taste

However, **a drop in blood pressure** without other symptoms may also indicate anaphylaxis. It is important to know that anaphylaxis can occur without hives.

### 5 WHAT CAUSES ANAPHYLAXIS?

Food is one of the most common causes of anaphylaxis, but insect stings, medications, latex, and exercise can also cause reactions.

[Learn more about non-food allergens.](#)

## 6 HOW MUCH OF A FOOD ALLERGEN DOES IT TAKE TO CAUSE A REACTION?

Even a very small amount 'hidden' in a food transferred to a serving utensil has the potential to cause a severe allergic reaction. It's important to know how to avoid cross-contamination.

[Learn more.](#)

## 7 CAN SOMEONE HAVE A REACTION WITHOUT INGESTING THEIR ALLERGEN?

For most people, accidentally eating a food containing their allergen poses the greatest risk. Allergic reactions to foods are caused by specific food proteins. Since food odours do not contain protein, they cannot cause reactions. People can have reactions when they inhale food proteins to which they are allergic, such as in the steam produced while cooking certain foods, like fish.

## 8 CAN SOMEONE WHO IS ALLERGIC TO A FOOD HAVE AN ALLERGIC REACTION AFTER KISSING SOMEONE WHO HAS EATEN THAT FOOD?

Yes. People at risk need to tell their friends and partners about their food allergy to avoid accidental exposure, as small amounts of food can be transferred from one person to another through kissing.

## 9 HOW ARE ALLERGIC REACTIONS AVOIDED?

Reading ingredient labels on foods, taking special precautions in food preparation and ensuring proper hand washing and cleaning go a long way toward reducing the risk of an accidental exposure.

[Learn more about how to avoid reactions.](#)

## 10 WHY DO SO MANY PEOPLE SEEM TO HAVE FOOD ALLERGY THESE DAYS?

There is no easy explanation for the prevalence of food allergy. One theory, known as the "hygiene hypothesis", suggests that people in Western countries are living in cleaner and more sanitized environments, and their immune systems are shifting toward developing allergic responses to certain foods and away from fighting germs or infections. The risk factors for food allergy include:

**Age:** Food allergy is more common in young children than in older children or adults.

**Family history:** You're more likely to have a food allergy if your parent or sibling has one.

**Another food allergy:** If you have a food allergy, you're at greater risk for developing another.

**Related medical conditions:** Your risk is increased if you have an allergic disease such as asthma, eczema or hay fever.

## 11 HOW IS ANAPHYLAXIS TREATED?

Epinephrine is the first-line treatment for anaphylaxis, and epinephrine auto-injectors (e.g. EpiPen®) contain a pre-measured dose of the medication. Antihistamines and asthma medications shouldn't be used instead of epinephrine for treating anaphylaxis, but can be given as secondary medications. After receiving epinephrine, a person should go to hospital, ideally by ambulance, for observation and/or further treatment.

[Learn more about emergency treatment.](#)

## 12 CAN FOOD ALLERGY BE PREVENTED?

In 2017, guidelines were released by the U.S. National Institute of Allergy and Infectious Diseases (NIAID) on prevention of peanut allergy. These guidelines recommend introducing peanut to high-risk infants around 4-6 months of age to help prevent the development of peanut allergy.

In 2019, the Canadian Paediatric Society released updated recommendations on the specific timing of early introduction of allergenic foods for high-risk infants. The new guidance is to actively offer non-choking forms of foods containing common allergens (e.g. peanut, egg) around 6 months of age, but not before 4 months, as this can be effective in preventing food allergy in some high-risk infants.

## 13 CAN A FOOD ALLERGY BE OUTGROWN?

Allergies to peanut, tree nuts, and shellfish (crustaceans and molluscs) tend to be life-long. Some allergies, such as milk and egg, are often outgrown by school age.

## 14 HOW IS FOOD ALLERGY TREATED?

Currently, there is no cure for food allergy, though there are newly emerging therapies that show promise. The best studied treatments involve immunotherapy or desensitization to a food allergen using different methods of delivery and include oral immunotherapy (OIT) and epicutaneous immunotherapy (EPIT). These therapies are potential treatments for some patients with food allergy.

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*Food Allergy Canada is a national non-profit charity and Canada's leading patient organization committed to educating, supporting, and advocating for the more than 2.6 million Canadians living with food allergy.*

We focus on improving the daily quality of life of individuals and families by providing education and support needed to effectively navigate food allergy, building informed and supportive communities, and acting as the national voice on key advocacy issues.

Visit **[foodallergycanada.ca](http://foodallergycanada.ca)** to learn more.



**Canadian Society of Allergy  
and Clinical Immunology**

*The CSACI is the premier Canadian organization for health professionals in the field of Allergy, Asthma, and Clinical Immunology.*

The society provides leadership and expertise in this specialty. It also provides a place for members to interact, network, and learn from each other. The CSACI is a member society of the World Allergy Organization (WAO), as well as the Canadian Medical Association (CMA). It also works closely with patient information organizations to improve the lives of Canadians with allergic and immunologic disease. The CSACI's mission is to advance allergy, asthma, and immunology knowledge to optimize patient care across Canada.

Visit **[csaci.ca](http://csaci.ca)** to learn more.

## JOIN OUR EFFORTS

The National Food Allergy Action Plan will help to reduce the impact of food allergy and improve the quality of life for Canadians living with food allergy.

Contact us at [nationalplan@foodallergycanada.ca](mailto:nationalplan@foodallergycanada.ca)

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