Food Allergy
Frequently Asked Questions

This document has been developed by ASCIA, the peak professional body of clinical immunology/allergy specialists in Australia and New Zealand. ASCIA information is based on published literature and expert review, is not influenced by commercial organisations and is not intended to replace medical advice.
For patient or carer support contact Allergy & Anaphylaxis Australia or Allergy New Zealand.

Q 1: What is food allergy?

Food allergy occurs when a person's immune system reacts to foods that are harmless to most people. The immune system produces allergy antibodies called Immunoglobulin E (IgE) that can result in symptoms.

A positive food allergy test (skin test or blood test for allergen specific IgE) means that a person's immune system has produced an antibody response to that food. This is known as sensitisation. It is possible to have sensitisation without allergy, which means that the person can eat the food without any symptoms. For this reason, food allergy should be confirmed by a clinical immunology/allergy specialist.

Q 2: How common is food allergy?

Food allergy occurs in around 10% of infants, 4-8% of children, and about 2% of adults in Australia and New Zealand. The most common food allergens are cow's milk (dairy), egg, peanut, tree nuts, sesame, soy, fish, shellfish, and wheat. Almost any substance that is eaten (including herbal medicine) can trigger an allergic reaction.

Mild or moderate food allergic reactions are common in Australia and New Zealand. Severe allergic reactions (anaphylaxis) due to food allergy are less common and deaths from anaphylaxis are rare.

Q 3: What are the signs and symptoms of allergic reactions to foods?

Signs and symptoms of **mild to moderate allergic reactions** to foods include:

- Swelling of the lips, face, eyes
- Hives or welts on the skin
- Abdominal pain, vomiting

Signs of **anaphylaxis** to foods include any one of the following:

- Difficult or noisy breathing
- Swelling of the tongue
- Swelling or tightness in the throat
- Wheeze or persistent cough
- Difficulty talking or hoarse voice
- Persistent dizziness or collapse
- Pale and floppy (in young children)

Anaphylaxis is the most severe type of allergic reaction and should always be treated as a medical emergency. Anaphylaxis requires immediate treatment with adrenaline (epinephrine), which is injected into the outer mid-thigh muscle. Delayed treatment can result in fatal anaphylaxis.

Most deaths from anaphylaxis can be prevented by:

- Careful food allergen avoidance.
- Positioning of the person having an allergic reaction (lay person flat, in recovery position, or sitting with legs outstretched).
- Adrenaline given without delay.

Q 4: What factors can make allergic reactions to foods more severe?

Some factors can make allergic reactions to foods worse, and these include:

- Amount of food eaten.
- Form of the food - liquid may be absorbed faster, and cooked food is sometimes better tolerated.
- Whether it is eaten on its own or mixed in with other foods.
- Intake of alcohol.
- Exercise around the same time as the allergen is eaten.
- Asthma.
- Being unwell.
- Menstruation.

Q 5: How is food allergy diagnosed?

Reliable diagnosis of food allergy is important. A doctor will ask a series of questions that may help to narrow down the list of likely causes of allergy, such as foods or medicines consumed that day, or exposure to stinging insects. This approach will help to exclude conditions that can sometimes be confused with food allergy.

Skin tests or blood tests for allergen specific IgE help confirm or exclude potential triggers. While the results of allergy tests are a useful guide in determining whether a person is allergic, they are not a reliable guide to how severe a reaction will be.

Q 6: What does a positive allergy test mean?

It is important to know that a positive skin or blood allergy test means that your body's immune system has produced a response to a food, but sometimes these are false positives. In other words, the test may be positive, yet you can eat the food without a problem.

Sometimes it is important to confirm the significance of a positive allergy test with a supervised food challenge. In a child with a positive test of uncertain meaning, this is often done around school age under medical supervision. A clinical immunology/allergy specialist is the best person to interpret allergy test results and help you decide whether a food challenge is needed.

Q 7: Are there ‘allergy testing’ methods which are unproven and not recommended?

Some unorthodox/alternative practitioners offer unproven, non-evidence-based allergy ‘tests’ and ‘treatments’ that are not recommended by ASCIA.

These include cytotoxic food testing, kinesiology, hair analysis, vega testing, electrodermal testing, pulse testing, reflexology, bioresonance, Bryan’s or Alcat tests, VoiceBio, allergy elimination techniques and immunoglobulin G (IgG) to foods. These tests can result in misdiagnosis, ineffective treatments, costly and often dangerous dietary restrictions.

Q 8: How can people with food allergy manage their condition?

People can learn to manage their food allergy with the guidance of their clinical immunology/allergy specialist. People who are at risk of anaphylaxis should have adrenaline injectors and an ASCIA Action Plan for Anaphylaxis. Strict avoidance of confirmed food allergens is also essential in the management of food allergy.

It is important for people with food allergy to:

- Know the signs and symptoms of allergic reactions and know what to do when a reaction occurs.
- Read and understand food labels for food allergy.
- Tell wait staff that they have a food allergy when eating out.
- Be aware of cross contamination of food allergens when preparing food.
- Carry their adrenaline injector (if prescribed) and ASCIA Action Plan at all times.

Q 9: Who needs an ASCIA Action Plan?

People with food allergy should have an ASCIA Action Plan for Anaphylaxis if they have adrenaline injectors prescribed. Many people with food allergies will have an exposure every few years, even when they are very careful to avoid their confirmed food allergens.

Q 10: Why has food allergy become more common?

Research into why food allergy has become more common and prevention strategies is ongoing. It is not fully understood why food allergies have increased in recent years. Possible explanations include:

- **Hygiene hypothesis** which proposes that less exposure to infections in early life is associated with an increased chance of developing allergies.
- **Delayed introduction of common allergy causing foods** (beyond 12 months of age) such as egg, peanut, or tree nuts.
- **Methods of food processing** such as roasted versus boiled peanuts.
- **Development of allergy to food by skin exposure** such as the use of food-based skin products.

Research into food allergy treatments is ongoing.

Q 11: When does food allergy develop, and can it be outgrown?

Food allergy can develop at any age, but it is most common in children less than five years old.

Most children allergic to cow's milk, soy, wheat or egg will outgrow their food allergy. Allergic reactions to peanuts, tree nuts, sesame seeds and seafood persist in approximately 75% of children affected.

When food allergy develops for the first time in adults, it usually persists.

Q 12: Does cooking food remove the allergen?

Cooked or baked foods, such as cow’s milk and/or egg in muffins, cakes, or biscuits, may be tolerated by some people with allergy to cow’s milk and/or egg. Unless tolerance to cooked or baked foods is confirmed, this should be discussed with your clinical immunology/allergy specialist before introducing these foods.

Q 13: Can hand sanitiser remove food allergen from hands?

No. Liquid sanitiser that is not rinsed off does not remove food allergens.

The aim of hand washing is to remove allergens rather than disinfect. Soap and water are ideal, but if they are unavailable, hand sanitiser wipes may be used.

Q 14: Are allergic reactions to inhaled foods common?

No. Allergic reactions to food in the form of fine dust are uncommon. Most food proteins do not easily disperse as aerosols. Food handlers may have reactions to inhaled foods, including soybeans in processing plants, seafood allergens in some factories, and wheat dust in bakeries.

Foods which are more likely to cause an allergic reaction in the home environment in highly sensitised people include steam from cooking, which can carry particles of the food, and dried egg powder.

Most reactions that seem to occur without the food being eaten, especially in young children, are due to behaviours common in this age group, such as messy eating and mouthing objects. Volatile esters are carbohydrates, not proteins, and can convey the smell of a food but cannot trigger symptoms.

Q 15: What does cross reactivity mean?

Cross reactivity means that a similar protein is present in several foods, then a person may have allergic reactions to any food containing that protein. Some people may be allergic to more than one protein in more than one food, so they may be allergic to several foods. An example of cross reactivity includes similar proteins present in cashew and pistachio nut.

It may be difficult to predict whether a person will be allergic to one unique protein allergen present in one food only, or several similar cross reactive proteins present in multiple foods. It is not possible to reliably predict the likelihood of allergy to seed or nut like foods without allergy testing to that food.

Q 16: Are all adverse reactions to foods due to allergy?

No. Adverse reactions to foods are sometimes confused with, or mislabelled, as food allergies.

Adverse reactions to foods that are not food allergy:

- Include food intolerances, toxic reactions, food poisoning, enzyme deficiencies, food aversion, or irritation from skin contact with certain foods.
- Can result in symptoms such as headaches after having chocolate or red wine, and bloating after drinking milk or eating pasta.
- Do not result in life-threatening anaphylaxis.

For more information go to www.allergy.org.au/patients/food-other-adverse-reactions

Content updated March 2024

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