

Allergic and anaphylactic reactions



Allergic reactions are common in children. They happen when the immune system reacts to something in the environment that is normally harmless, such as food proteins, pollens or dust mites. Allergic reactions can be triggered by an allergen (the substance the person is allergic to) coming into contact with the skin, eyes, nose, lungs, stomach or bowel.

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The most common causes of allergy in children are eggs, peanuts, tree nuts, cow's milk, soy, wheat, fish and shellfish. Other causes are bee or other insect bites (e.g. wasp or jack jumper ant), some medications (e.g. antibiotics or anesthetics) and latex (rubber).

Many allergic reactions are mild, but some can be extremely severe. Anaphylaxis is the most severe form of an allergic reaction and is life threatening. It is estimated that one in every 100 school-age children have anaphylaxis. With planning and training, anaphylaxis can be treated effectively.

Signs and symptoms of allergic reactions

Mild to moderate allergic reaction

An allergic reaction will include one or more of these symptoms, and it is possible that a number of them will happen at the same time:

- hives, welts or wheals (a red, lumpy rash, like mosquito bites)
- a tingling feeling in or around the mouth
- stomach pain, vomiting and/or diarrhoea (loose or runny poo)
- facial swelling.

The first time your child has any allergic reaction, take them to the GP. The doctor will confirm whether your child had an allergic reaction and advise you how to treat the reaction next time it happens. If the reaction was moderate or severe, you may be referred to an allergy specialist. Be aware that occasionally a more severe reaction may occur when your child is exposed to the allergen for the second time.

Severe allergic reaction (anaphylaxis)

A severe allergic reaction involves a person's breathing and/or circulation (heart and blood). In addition to one or more of the above symptoms of a mild to moderate allergic reaction, at least one of the following symptoms indicates your child is having an anaphylactic reaction:

- difficulty with breathing and/or noisy breathing
- wheeze or persistent cough
- swelling of the tongue
- swelling and/or tightness in the throat
- difficulty talking or hoarse voice
- persistent dizziness or collapse
- becoming pale and floppy (infants/young children).

Call an ambulance immediately if your child has symptoms of anaphylaxis.

Is my child's food reaction an allergy or intolerance?

Sometimes a food intolerance can be confused with a food allergy because many of the symptoms are similar. However, intolerance and allergy are not the same thing – allergy involves the immune system but intolerance does not. Food intolerance will not lead to anaphylaxis.

An allergic reaction to food can be triggered by even very small amounts. Intolerance is when a person can tolerate a certain amount of the trigger, but when they have had too much, they become unwell (e.g. with diarrhoea, bloating, headaches, rash and mouth ulcers).

Treatment for allergic reactions

Mild to moderate allergic reaction

Most mild episodes of food allergy will respond well to an oral antihistamine medication. If your child has a known allergy, you should carry an antihistamine medicine with you at all times. Talk to your pharmacist or GP.

Anaphylactic reaction

The first-line treatment for anaphylaxis is adrenaline, which may be given as an injection. Your doctor will also prepare an Anaphylaxis Action Plan for your child. If your child has an anaphylactic reaction, follow the plan or do the following:

- Have your child lie down, but if breathing is difficult allow them to sit.
- Inject your child with the autoinjector, **and call an ambulance immediately**.
- A second autoinjector is sometimes needed while waiting for an ambulance.

If there is no auto-injector available, call an ambulance immediately.

An allergist will work with your child to find out what they are allergic to. Your child could also wear a medical alert pendant or bracelet to let other people know what may cause them to have an allergic reaction. Talk to your doctor about this.

About autoinjectors

If your child has had a history of anaphylaxis, an adrenaline autoinjector will be prescribed for the use in any future episodes. The most common autoinjectors in Australia are EpiPen/EpiPen Jr and Anapen/Anapen Jr.

You and your child (if they are old enough) will need to learn how to use the autoinjector. Keep a copy of your child's Anaphylaxis Action Plan with the autoinjector. Make sure the autoinjector is stored:

- in an insulated container clearly labelled with your child's name
- at room temperature
- in a safe, easily accessible central location.

When out of the house, your child's autoinjector and action plan should be carried with them at all times.

Regularly check the expiry date and ensure the window is clear on the autoinjector.

Preventing allergic and anaphylactic reactions

An important aspect of allergy and anaphylaxis management is prevention by avoiding the trigger.

If your child is allergic to food, teach them not to share or swap food with others, and to always wash their hands before eating. Teach your child to be very careful when eating take-away food or eating at restaurants and cafes. For parties and play dates, always notify the host of your child's allergies and ensure they have access to your child's autoinjector and know how to use it. Consider providing separate food for your child.

Schools, kindergartens and childcare centres will have policies in place to prevent reactions in children at risk of anaphylaxis, and staff will be trained in how to manage reactions if they occur. The policies will cover the following issues:

- food sharing and treats
- banning products
- food preparation and serving
- art/craft
- excursions and camps.

Talk to your school or childcare centre about your child's allergies, and what allergy policies they have in place.

Asthma and anaphylactic reactions

For children with both asthma and anaphylaxis, it is very important to maintain good asthma symptom control. This will reduce the severity of each allergic reaction.

Key points to remember

- Allergic reactions are common in children. Most reactions are mild.
- A severe allergic reaction involves a person's breathing and/or circulation.
- Anaphylaxis is the most severe form of an allergic reaction and is life threatening.
- An important aspect of allergy and anaphylaxis management is prevention by avoiding the cause.
- Treatment for anaphylaxis involves lying the child flat (or seated), giving an autoinjector and calling an ambulance.

For more information

- Kids Health Info fact sheet: [Hives \(https://www.rch.org.au/kidsinfo/fact_sheets/Hives/\)](https://www.rch.org.au/kidsinfo/fact_sheets/Hives/).
- Kids Health Info fact sheet: [Hay fever \(https://www.rch.org.au/kidsinfo/fact_sheets/Hay_fever/\)](https://www.rch.org.au/kidsinfo/fact_sheets/Hay_fever/).
- Kids Health Info fact sheet: [Peanut and tree nut allergy \(https://www.rch.org.au/kidsinfo/fact_sheets/Peanut_and_tree_nut_allergy/\)](https://www.rch.org.au/kidsinfo/fact_sheets/Peanut_and_tree_nut_allergy/).
- The Royal Children's Hospital Allergy and Immunology department: [Parent information sheets \(https://www.rch.org.au/allergy/parent_information_sheets/Parent_Information_Sheets/\)](https://www.rch.org.au/allergy/parent_information_sheets/Parent_Information_Sheets/).
- [Australasian Society of Clinical Immunology and Allergy \(ASCIA\) \(https://www.allergy.org.au/patients/information\)](https://www.allergy.org.au/patients/information) (<https://www.allergy.org.au/patients>).
- ASCIA: [How to give EpiPen \(https://www.allergy.org.au/health-professionals/anaphylaxis-resources/how-to-give-epipen\)](https://www.allergy.org.au/health-professionals/anaphylaxis-resources/how-to-give-epipen).
- Allergy and Anaphylaxis Australia: [Schooling and Childcare \(https://allergyfacts.org.au/allergy-management/schooling-childcare/\)](https://allergyfacts.org.au/allergy-management/schooling-childcare/).

Common questions our doctors are asked

Will my child grow out of her allergies?

Most allergies reduce as your child gets older and some children outgrow their allergies altogether. Children who are allergic to milk, egg and soy are more likely to outgrow their allergies than those allergic to peanuts, tree nuts, fish and shellfish.

Should schools ban food products that children are allergic to?

Banning of products that contain an allergen is not recommended. Banning will not succeed in creating an allergy-free zone. It is difficult to achieve a perfect ban for a variety of reasons, e.g. parents of non-allergic children may not comply with the ban, staff and students can become complacent. Instead, it is recommended that the people associated with the child with the allergy become aware of allergy-causing foods, and the child knows they must only eat their own food.

Why do so many children have allergies and anaphylaxis now?

Food allergy and anaphylaxis seem to have increased significantly in recent decades; however, the reason for this increase is not known. Researchers are investigating why more children have allergies these days, and they are looking into issues such as methods of food processing or the fact that babies are now exposed to fewer infections in early childhood. What is known is that allergies do tend to run in families.

My child has had a mild allergic reaction to some foods. Should I buy an EpiPen just in case she has an anaphylactic reaction one day?

No. It is best to have your child assessed by an allergy specialist, to determine whether they have anaphylaxis and what they are specifically allergic to. If the specialist believes your child has anaphylaxis, they will organise an EpiPen for you.

Developed by The Royal Children's Hospital Allergy and Immunology department. We acknowledge the input of RCH consumers and carers.

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