

Patient information from BMJ

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Food allergy: what is it?

A food allergy happens when someone's immune system reacts badly to a specific food. Reactions can vary from mild, such as itching or sneezing, to severe reactions, such as serious heart and breathing problems, which can cause death.

You can use our information to talk to your doctor about dealing with problems caused by a food allergy.

What is a food allergy?

If you have a food allergy your immune system reacts badly to a protein found in a certain food. This over-reaction by the immune system can lead to problems, which can vary from mild to life threatening.

If you are having a severe allergic reaction, or if you are with someone who is, **get medical help straight away**.

For more information on how to prevent and treat allergic reactions to food, see our leaflet: *Food allergy: what treatments are available?*

The foods that most commonly cause allergic reactions are:

- peanuts
- tree nuts (examples include almonds, cashews, Brazil nuts, hazelnuts, pecans, pistachios, and walnuts)
- milk
- eggs
- fish
- shellfish
- wheat, and
- soya.

Food allergy is more common among people who are generally more sensitive to other substances. For example, people are more likely to have a food allergy if they have:

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- a skin condition called atopic dermatitis
- sensitivity to certain types of pollen, or
- sensitivity to latex (a type of rubber).

Food allergy is more common in children than in adults. This is because many children grow out of their allergy as they get older. For example:

- about 7 in 100 children have a food allergy
- and about 3 or 4 in 100 adults have a food allergy.

What causes food allergy?

We don't really know what causes food allergy, but in some people it's likely to be genetic. This means that some food allergies seem to run in families.

There are other things that are thought to increase the chance of food allergies, although we don't know enough to say for sure. These include:

- young children not being exposed to bacteria and infections as much as they were many years ago. The theory is that children's immune systems don't become as strong as they once did, which makes allergies more likely. This is called the **hygiene hypothesis**
- changes in people's diets. For example, eating omega-3 (found in fish oil) is thought to have some health benefits, but it may also make allergies more likely
- getting too little or too much vitamin D.

What are the symptoms?

The symptoms of a food allergy usually appear between 20 minutes and two hours after eating the food that you are allergic to. They can vary from mild to extremely severe.

Rarely, the most severe allergic reactions can cause cardiac arrest (when the heart stops beating) and death.

Food allergy symptoms can affect many different parts of the body. For example:

Skin symptoms (also called dermatological symptoms) can include:

- itching
- flushing (reddening)
- rash (also called **urticaria**), and
- swelling of the skin. This is called **angio-oedema**.

Breathing symptoms (also called respiratory symptoms) can include:

- sneezing
- a runny or blocked nose
- a metallic taste in the mouth

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- a hoarse voice
- high-pitched breathing sounds (called **stridor**)
- a feeling of choking
- swelling in the throat
- fast or difficult breathing
- wheezing
- coughing, or
- the skin looking blue (called **cyanosis**).

Symptoms affecting the stomach and digestive system (also called gastrointestinal symptoms) can include:

- nausea
- vomiting
- stomach
- cramps
- bloating, and
- diarrhoea.

Symptoms affecting the eyes (also called ophthalmic symptoms) can include:

- red eyes
- watery eyes, and
- swelling around the eyes.

Diagnosing allergies

There are several things your doctor can do to find out if you are allergic to a specific food, including tests, and simply asking you about your symptoms.

One of the first things your doctor might do is to try to find out if you are **atopic**. This means that you are more sensitive than most people to things that cause allergies.

To do this, your doctor will ask you about other medical conditions that you may have. For example, people who have atopic conditions such as asthma, hay fever, or atopic dermatitis are more likely than others to have a food allergy.

If you think you know which food has caused your symptoms, your doctor will ask you about what happened when you ate it. For example, they might ask:

- how much of the food did you eat or drink?
- how soon after eating, drinking, touching, or inhaling (breathing in) the food did your symptoms start?
- if your symptoms got better, how long did it take for that to happen?

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- did your symptoms start after you exercised (some allergic reactions happen this way)?
- did you drink any alcohol or take any medicines around the time that you ate the suspect food? Medicines and alcohol are believed to make an allergic reaction more likely.

Your doctor might also suggest testing for a food allergy. Tests for allergies include:

- an **IgE blood test**. IgE stands for Immunoglobulin E. This can test if you are allergic to specific substances, and
- a **skin prick test**. This test involves putting a drop of liquid onto your skin. The liquid contains a small amount of the substance you are thought to be allergic to. The skin is then gently pricked. If your skin reacts - for example, if you get a slight rash or swelling - it suggests that you may be allergic to the substance.

What to expect in the future

What happens in the future largely depends on how careful you are about **preventing** repeated problems, and how **prepared** you are to deal with them.

Of course, with allergies sometimes you can just have bad luck. But there are some important things you can do, such as:

- wear **medical identification jewellery**, such as bracelets, which carry information about you and your allergy. Depending on where you live, you may be able to get this for free. Ask your doctor or local hospital for more information
- if you need adrenaline **auto-injectors**, make sure you carry them with you at all times, and replace them when you need to
- pay careful attention to **food labels and restaurant menus**
- make sure your family is aware of any **emergency plans** that you have, including using auto-injectors.

Certain groups of people seem to be more likely to have serious and fatal allergic reactions. These include young people and those with asthma. If you or your child is in one of these groups, you should be especially careful.

Allergies and nutrition

Making sure you don't eat food that you are allergic to can cause problems. For example, by cutting anything that contains your problem food from your diet, you may also be cutting out important nutrients.

It might help to talk to a **nutritionist** about how to make sure you can eat healthily while avoiding allergic reactions. Ask your doctor about how to get help from a nutritionist.

Allergies into adulthood

While it's not possible to say what will happen to any one person, many children grow out of their allergies. For example, about 60 in 100 children who are allergic to milk, eggs, soya, and wheat will not be allergic to these things as adults.

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But some allergies, such as those to nuts and seafood, are likely to last throughout adulthood.

More help

There are many charities and support groups that offer support to people with allergies of all kinds. For example, in the UK, Allergy UK (allergyuk.org) offers help and information to people with allergies and their families.

Your doctor might be able to help you find a group where you live, or you could easily search online

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