

Food allergy and intolerance

Some people are sensitive to particular foods like nuts, shellfish and cereals. The symptoms of food allergy can include breathing problems, stomach upsets and skin rashes. They are caused by an immune system response or a chemical reaction in the body. Some severe food allergies can be life threatening. Professional diagnosis is important, because other medical conditions may share the same symptoms.

Most reactions to food are actually food intolerance. About one in 20 children and one in 100 adults have food allergies.

Allergy is on the increase

Allergies in general are on the increase worldwide and food allergies have also become more common, particularly peanut allergy in preschool children. About 60 per cent of allergies appear during the first year of life. Cow's milk allergy is one of the most common in early childhood. Most children grow out of it before they start school.

Food allergy can be inherited

Children who have one family member with allergic diseases (including asthma or eczema) have a 20-40 per cent higher risk of developing allergy. If there are two or more family members with allergic diseases, the risk increases to 50-80 per cent.

Allergy is an immune response

Allergies are an overreaction of the body's immune system to a specific part of a food, usually a protein. These proteins may be from foods, pollens, house dust, animal hair or moulds. They are called allergens. The word 'allergy' means that the immune system has responded to a harmless substance as if it were toxic.

Food intolerance is a chemical reaction

Food intolerance is a 'chemical' reaction that some people have after eating or drinking some foods; it is not an immune response. Food intolerance has been associated with asthma, chronic fatigue syndrome and irritable bowel syndrome (IBS). Food intolerance is much more common than food allergy.

Symptoms can be similar

It can be difficult to tell the difference between the symptoms of food allergy and food intolerance. Usually symptoms caused by food allergy develop very soon after consuming the food but, while symptoms caused by food intolerance can be immediate, they may also take 12-24 hours to develop. Food intolerance reactions are usually related to the amount of the food consumed. They may not occur until a certain amount (threshold level) of the food is eaten, but this amount varies for each person.

The symptoms of food allergy and intolerance can also be caused by other conditions, so it's important to see your doctor for a medical diagnosis.

Symptoms of food intolerance

Symptoms of food intolerance can include:

- Nervousness, tremor
- Sweating
- Palpitations
- Rapid breathing
- Headache, migraine
- Diarrhoea
- Burning sensations on the skin
- Tightness across the face and chest
- Breathing problems - asthma-like symptoms
- Allergy-like reactions.

Symptoms of food allergy

The symptoms of food allergy can be life threatening. Common symptoms include:

- Itching, burning and swelling around the mouth
- Runny nose
- Skin rash (eczema)
- Hives (urticaria - skin becomes red and raised)
- Diarrhoea, abdominal cramps
- Breathing difficulties, including wheezing and asthma
- Vomiting, nausea.

Affected body parts

Various sites on the body can be affected by an allergic reaction to food, including:

- **Eyes** - itching, watering
- **Nose** - stuffiness, sneezing
- **Mouth** - itching, swelling
- **Throat** - swelling
- **Digestive system** - stomach pains, vomiting, diarrhoea
- **Skin** - rashes, such as hives (urticaria) or atopic dermatitis
- **Lungs** - asthma, more common in children than adults
- **Central nervous system** - headache, irritability, fatigue, convulsions.

Anaphylactic shock is life threatening

Anaphylaxis, or anaphylactic shock, is a severe allergic reaction that needs urgent medical attention. Peanuts, other nuts, insect stings and some medicines are the most common allergens that cause anaphylaxis. Within minutes of exposure to the allergen, the person can have potentially life-threatening symptoms, which include:

- Difficult or noisy breathing
- Swelling of the tongue
- Swelling or tightness in the throat
- Difficulty talking or a hoarse voice
- Wheeze or persistent cough
- Loss of consciousness or collapse
- Becoming pale and floppy (in young children).

Several factors can influence the severity of anaphylaxis, including exercise, heat, alcohol, the amount of food eaten, and how food is prepared and consumed.

To prevent severe injury or death, a person with anaphylaxis requires an injection of adrenalin. Injections of adrenaline, which can be given by the person themselves or their family or carer, are available on prescription or directly from a pharmacy.

Food allergy - common causes

Nuts, eggs, milk or soy cause about 90 per cent of food allergies. Peanut allergy is one of the most common allergies in older children. These foods commonly cause allergies:

- Eggs
- Peanuts
- Milk
- Other nuts
- Sesame
- Gluten
- Fish
- Grains such as rye, wheat, oats
- Soy
- Molluscs such as oysters, mussels, clam, squid and octopus
- Crustaceans such as lobster, prawn, crab, shrimp
- Fruit, berries, tomato, cucumber, white potato or mustard
- Food additives like benzoates, salicylates, MSG and sulphite derivatives.

Food intolerance - common causes

The foods that tend to cause intolerance reactions in sensitive people include:

- Dairy products, including milk, cheese and yoghurt
- Chocolate
- Eggs, particularly egg white
- Flavour enhancers such as MSG (monosodium glutamate)
- Food additives
- Strawberries, citrus fruits and tomatoes
- Wine, particularly red wine
- Histamine and other amines in some foods.

Finding the allergen

When symptoms appear within a few minutes of eating the particular food, this makes pinpointing the allergen an easy task. However, if the cause is unknown, diagnostic tests may be needed such as:

- Keeping a food and symptoms diary to check for patterns.
- Removing all suspect foods for two weeks, then reintroducing them one at a time to test for reactions (except in cases of anaphylaxis). This must only be done under medical supervision.
- Skin prick tests using food extracts.
- Blood (RAST) tests.

Avoiding the food

The easiest way to treat a food allergy or intolerance is to eliminate it from the diet. Sometimes, the body can tolerate the food if it is avoided for a time, then reintroduced in small doses, particularly in food intolerances. Before you eliminate foods from your diet, seek advice from a doctor and dietitian.

Preventing food allergy in children

Allergy prevention in children is an active area of research. Findings to date indicate that:

- **Prenatal** - there is no conclusive evidence that avoiding allergens in pregnancy will help prevent allergies in your child.
- **Postnatal** - exclusive breastfeeding during the first four to six months appears to protect against the development of allergies in early childhood. Exposure to cigarette smoke and starting solids early can increase the risk of developing allergies in early childhood.
- **Breastfeeding** - if a baby is known to be allergic to a particular food, a breastfeeding mother should avoid eating that food.
- **Soy formula** - studies have shown that using soy milk formula does not prevent the development of allergies in children.
- **Partially hydrolysed formula** - these are cow's milk based and have been processed to break down most of the proteins that cause symptoms in infants who are allergic to cow's milk. They reduce the risk of developing eczema and cow's milk allergy in infancy and early childhood.

Severe food allergy in children

Although anaphylaxis is rare, it does pose a risk for some people, including children. Since 2008, all licensed children's services and schools in Victoria are required to have an anaphylaxis management policy in place.

Banning particular foods is not recommended as it can create a sense of complacency and is difficult to monitor and enforce. A better approach is to educate staff, students and the community about the risks associated with anaphylaxis and put in place strategies to minimise exposure to known allergens.

Tips to avoid foods that may cause allergies

To avoid allergic foods, learn the terms used to describe these foods on food labels, for example:

- **Milk protein** - milk, non-fat milk solids, cheese, yoghurt, caseinates, whey, lactose
- **Lactose** - milk, lactose
- **Egg** - eggs, egg albumen, egg yolk, egg lecithin

- **Gluten** - wheat, barley, rye, triticale, wheat bran, malt, oats, cornflour, oatbran
- **Soy** - soybeans, hydrolysed vegetable protein, soy protein isolate, soy lecithin
- **Salicylates** - strawberries, tomatoes.

Food laws and labels

Since December 2002, the *Australia New Zealand Food Standards Code* requires food labels to declare certain foods and certain substances in foods, including:

- Cereals which contain gluten and gluten products
- Crustacea and their products
- Eggs and egg products
- Fish and fish products
- Milk and milk products
- Nuts and sesame seeds and their products
- Peanuts and soybeans and their products
- Added sulphites in concentrations of 10mg/kg or more
- Royal jelly presented as food or present in food, bee pollen and propolis.

These foods must be declared if they are:

- Used as an ingredient
- Part of a compound ingredient
- A food additive or part of a food additive
- A processing aid or part of a processing aid.

Where to get help

- Your doctor
- An Accredited Practising Dietitian, contact the Dietitians Association of Australia
- Nutrition Australia Tel. (03) 9650 5165
- Better Health Channel has produced a range of recipes for people with special dietary requirements.

Things to remember

- A food allergy occurs when the immune system reacts to a harmless food as if it were toxic.
- Food intolerance occurs when the body has a chemical reaction to eating a particular food or drink.
- The symptoms to a food allergy or intolerance are often similar, but food intolerances do not cause severe reactions such as anaphylaxis.
- Learn to read food labels so you can avoid foods that cause allergies.

This page has been produced in consultation with, and approved by:

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This Better Health Channel fact sheet has passed through a rigorous approval process. The information provided was accurate at the time of publication and is not intended to take the place of medical advice. Please seek advice from a qualified health care professional.

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