

Onion and garlic

Some people have symptoms brought on by onion or garlic, which belong to a group of plants called alliums. Having an allergy to onion or garlic is rare. It's much more common to have symptoms caused by a food intolerance. If you have questions about allergy to onion, garlic or other alliums, this factsheet is for you.

What are alliums?

Onion and garlic are types of alliums. 'Allium' is the name of a genus (or group) of plants that grow from bulbs. Others include leeks, shallots, chives and some types of flowers.

Onion and garlic intolerance

Unlike an allergy, a food intolerance does not involve the immune system, and the tests and treatments are different.

Food intolerance happens if your gut is sensitive to certain foods. This can cause gut symptoms such as:

- bloating
- stomach pain
- wind.

The symptoms may be delayed and usually come on from about half an hour after eating the food, although they can sometimes start much later. They often only happen if you eat a large amount of the food.

If you think you have an intolerance to onion, garlic or other alliums, speak to your GP to discuss an exclusion diet followed by reintroduction. They can refer you to a dietitian to help you manage the condition, if needed.







Allergy to onion and garlic

Food allergy occurs when the body's immune system wrongly identifies a food as a threat and releases chemicals, such as histamine, in response. It is the release of these chemicals that causes symptoms.

Allergy to onion, garlic or other alliums is rare, but it's not known exactly how many people have it in the UK.

What are the symptoms of allergy to onion or garlic?

The symptoms of a food allergy usually come on quickly, within minutes of eating the food, and can happen after eating very small amounts.

Mild to moderate symptoms may include:

- a red raised rash (known as hives or urticaria) anywhere on the body
- a tingling or itchy feeling in the mouth
- swelling of lips, face or eyes
- stomach pain or vomiting.

Breathing in the vapours of onions or garlic can sometimes cause mild to moderate symptoms of allergic reactions or asthma.

Contact dermatitis can be caused by handling cut onion or garlic. Symptoms can include dry, red, itchy hands and cracking on the fingertips.

More serious symptoms

More serious symptoms are often referred to as the ABC symptoms and can include:

- AIRWAY swelling in the throat, tongue or upper airways (tightening of the throat, hoarse voice, difficulty swallowing).
- BREATHING sudden onset wheezing, breathing difficulty, noisy breathing.
- CIRCULATION dizziness, feeling faint, sudden sleepiness, tiredness, confusion, pale clammy skin, loss of consciousness.

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The term for this more serious reaction is **anaphylaxis** (pronounced anna-fill-axis).

Most healthcare professionals consider an allergic reaction to be anaphylaxis when it involves difficulty breathing or affects the heart rhythm or blood pressure. Any one or more of the ABC symptoms above may be present.

In extreme cases there could be a dramatic fall in blood pressure. The person may become weak and floppy and may have a sense of something terrible happening. Any of the ABC symptoms may lead to collapse and loss of consciousness and, on rare occasions, can be fatal.

Anaphylaxis to onion or garlic is thought to be very rare. Only a few cases have been reported in the research.

Getting a diagnosis

If you think you may be allergic to onions, garlic or other alliums, see your GP who can refer you to a specialist allergy clinic if needed. They can find a clinic in your area from the <u>British Society for Allergy and Clinical Immunology (BSACI)</u>.

Once you get a referral, the consultant will discuss your medical history and symptoms with you. They might suggest skin prick tests, blood tests, and food challenge tests to help diagnose the allergy and work out how serious it may be.

Read more about allergy testing.

What can mean you're at higher risk?

Some clues that you might be at higher risk of more serious reactions are:

- you have already had a serious reaction, with any of the ABC symptoms
- you have asthma, especially if it is not well controlled
- you have reacted to a tiny amount of onion, garlic or other alliums.

If you have asthma and it is not well controlled, this could make an allergic reaction worse. Make sure you discuss this with your GP or allergy specialist and take any prescribed medicines.

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Treating symptoms

If you have mild allergic symptoms, you may be prescribed antihistamine medicine that you take by mouth. If you are at higher risk of anaphylaxis, you may be prescribed adrenaline to use in an emergency.

Adrenaline comes in pre-loaded adrenaline auto-injectors (AAIs) that are designed to be easy to use. Make sure you know how and when to use them. Ask your healthcare professional to show you how to use your specific brand of AAI. You can also find help and training videos on the manufacturer's website and get a free trainer device to practise with.

The adrenaline auto-injectors prescribed in the UK are:

- <u>Emerade</u>
- EpiPen
- Jext

You must carry two AAIs with you at all times, as you may need to use a second one if your symptoms don't improve after five minutes or get worse.

Read more about what to do in an emergency.

Avoiding onion and garlic

Once you have been diagnosed with an allergy to onion, garlic or other alliums, you will need to avoid them and foods that contain them.

Onion and garlic are used as ingredients in a wide variety of pre-packed foods and dishes sold in restaurants and takeaways. They are common in many cuisines and are widespread in sauces, chutneys, processed meats and soups.

Read the ingredient lists on food packets carefully every time you shop. Onion and garlic are NOT included in the list of top 14 major food allergens in the UK. This means they will be listed as ingredients on the label but won't be emphasised, in bold for example, the way common allergens such as milk and egg are.

The only exception where onion and garlic might not be named is when products list 'spices' in the ingredients list. Manufacturers are allowed to list 'spices' without stating







what the spices are as long as they make up no more than 2% of the weight of the food, and they don't include a <u>top 14 allergen</u>.

Although onion and garlic are vegetables, powdered forms can be considered spices. If you see 'spices' listed on a label, you will need to avoid the product or ask the manufacturer if it contains onion, garlic or another allium.

Read the ingredient list every time you buy a product as manufacturers change their recipes often.

Does cooking make a difference?

With onions, how much you cook them can change how likely they are to cause a reaction and how serious the reaction may be. Discuss this with your doctor or allergy specialist to find out if this could make a difference for you.

When eating out

Restaurants, cafes, hotels, takeaways and other catering businesses are NOT required by law to provide information about ingredients that are not included in the top 14 major food allergens. You can still ask staff directly if the food you'd like to buy contains onion or garlic and if there is a risk of cross-contamination. Let them know that even small quantities can cause an allergic reaction and don't be afraid to ask staff to check with the chef.

Remember to ask about any added spices. If you can't find out what the dish contains, it may be safer to avoid that dish.

Read about shopping and preparing food.

What else might I react to?

If you are allergic to onion, you might also react to garlic and/or other alliums, and vice versa. This is due to a process known as "cross-reactivity" – where the proteins in one food are similar to the proteins in another, as it's the proteins that cause the reaction.







In some people, allergy to onion and/or garlic can be part of an allergy syndrome called Celery-Spice-Mugwort syndrome, where you may be allergic to a range of different raw fruit and vegetables, as well as spices. Speak to your allergy specialist about how likely you are to react to other foods.

Key messages

- Visit your GP if you think you might have an onion or garlic allergy.
- Having an allergy to onion or garlic is rare. It's much more common to have symptoms caused by food intolerance.
- Anaphylaxis to onion or garlic is thought to be very rare and only a few cases have been reported in research papers.
- If you are prescribed adrenaline auto-injectors (AAIs), carry them with you at all times
- If you are allergic to onion, you might also react to garlic or other alliums, and vice versa.

Feedback

Please help us to improve our information resources by sending us your feedback at: -

https://www.anaphylaxis.org.uk/information-resources-feedback/

Sources

All the information we produce is evidence based or follows expert opinion and is checked by our clinical and research reviewers. If you wish to know the sources we used in producing any of our information products, please contact info@anaphylaxis.org.uk and we will gladly supply details.

Reviewer

The content of this factsheet has been peer-reviewed by Dr Adrian Sie, Consultant in Paediatrics at NHS Lanarkshire.







Disclosures

We are not aware of any conflicts of interest in relation to the review of this factsheet.

Disclaimer

The information provided in this factsheet is given in good faith. Every effort is taken to ensure accuracy. All patients are different, and specific cases need specific advice. There is no substitute for good medical advice provided by a medical professional.

About Anaphylaxis UK

Anaphylaxis UK is the only UK-wide charity solely focused on supporting people at risk of serious, life-threatening allergic reactions. We provide information and support to people living with allergies through our free national helpline. We also fundraise to achieve our ultimate aim, to create a safer environment for all people at risk of serious allergies. Visit our website www.anaphylaxis.org.uk and follow us to keep up-to-date with our latest news. We're on Facebook @anaphylaxisUK, LinkedIn, Instagram @anaphylaxisUK, Twitter @AnaphylaxisUK and YouTube.

