

Soya allergy

There are two types of soya allergy: immediate and delayed. Soya allergy is becoming more common worldwide and can significantly affect people's daily lives. This factsheet will help you understand which type of soya allergy you have and how to manage it.

What is soya?

"Soya" (also known as "soy") refers to foods and ingredients made from the **soybean**, which is a type of legume. The soybean is the whole seed or bean harvested from the plant, while "soya" usually describes products made from it, such as tofu, soya milk, soy sauce, and many processed foods. Soybeans are valued for their high-quality protein and are widely used in cooking and food manufacturing.

In this factsheet, the word "**soya**" will be used to describe foods and ingredients made from the soybean. This includes all forms of soya-containing products that might cause an allergic reaction.

There are two types of soya allergy:

- immediate
- delayed

Immediate soya allergy

People with soya allergy react to specific proteins found in the soybean. Immediate soya allergy happens when the body's immune system wrongly identifies soya as a threat and produces a type of protein known as IgE. When you eat soya, the body's allergy cells (mast cells) release chemicals, such as histamine, that cause the allergic symptoms.

These reactions tend to happen very soon after eating soya, usually within seconds or minutes, but can sometimes take longer to develop. Very rarely, it can lead to a serious allergic reaction, known as **anaphylaxis** (ana-fil-ax-is).

What are the symptoms of immediate soya allergy?

Mild to **moderate** symptoms may include:

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

Most people with soya allergy have mild symptoms but, very rarely, symptoms can be more serious. The term for this more serious reaction is **anaphylaxis**.

More serious symptoms (anaphylaxis)

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

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

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.

Any of the ABC symptoms may lead to collapse and unconsciousness and, on rare occasions, can be fatal.

[Read more about anaphylaxis.](#)

Delayed soya allergy

Delayed soya allergy is not very well understood. Although the immune system is probably involved, the IgE proteins that lead to immediate reactions are not. Symptoms take much longer to come on, and usually appear hours to days after eating soya.

This type of allergy doesn't lead to anaphylaxis and is not life threatening.

Symptoms of delayed soya allergy

Delayed soya allergy usually involves the digestive system and causes symptoms such as:

- stomach pain
- diarrhoea (which might be bloody)
- vomiting
- reflux
- colic

Sometimes people have atopic dermatitis (a type of eczema) which may also be a symptom of delayed soya allergy.

Other allergic conditions

Soya can cause symptoms in people with other allergic conditions including Food Protein Induced Enterocolitis Syndrome (FPIES), eosinophilic esophagitis (EoE) and proctocolitis, but these conditions are not covered here.

Getting a diagnosis

If you think you may be allergic to soya, see your GP who can take a focused allergy history, organise allergy testing and/or refer you to a specialist allergy clinic if needed. They can find a clinic in your area from the [British Society for Allergy and Clinical Immunology \(BSACI\)](#).

Once you get a referral, the allergy team 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 soya.

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.

Treating symptoms of soya allergy

Treating immediate soya allergy

If you have mild allergic symptoms, you may be prescribed antihistamine medicine that you take by mouth. But if you are at risk of a serious allergic reaction (anaphylaxis), you may be prescribed adrenaline – the emergency medicine used to treat anaphylaxis. It is also known as epinephrine.

Because anaphylaxis can happen very quickly, adrenaline is available in different forms that are designed to be easy to use. It's important to know exactly how and when to use your prescribed adrenaline. Healthcare professionals can show you how to use it, and there are also resources such as practice devices and videos on manufacturer websites. Options currently available on prescription in the UK include:

- **Adrenaline auto-injectors (AAIs)** – such as EpiPen and Jext.

- **Intranasal adrenaline** – EURneffy, a needle-free nasal spray.

You must carry two in-date forms of prescribed adrenaline at all times as a second dose may be needed if symptoms do not improve after five minutes or get worse.

[Find out more about what to do in an emergency.](#)

[Find out more about adrenaline.](#)

Treating delayed soya allergy

The main treatment for delayed soya allergy is to avoid soya. As this type of allergy does not cause anaphylaxis and is not life-threatening, you won't need to carry adrenaline. If you have eczema, you may be prescribed treatments for this.

Avoiding soya

Once you have been diagnosed with a soya allergy, you will need to avoid soya and foods that contain it.

Read the ingredient lists on food packets carefully every time you shop. Soya is included in the list of the top 14 major food allergens in the UK. This means it must be highlighted on ingredients labels, for example, in bold or underlined.

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

When eating out

Restaurants, cafes, hotels, takeaways and other catering businesses are required by law to provide information on major allergens, including soya. Ask staff directly if the food you'd like to buy contains soya and if there is a risk of cross-contamination. Let them know that even small quantities can cause a reaction and don't be afraid to ask staff to check with the chef.

[Read about shopping and preparing food.](#)

Which foods contain soya?

Soya is used as an ingredient in a wide range of foods.

- **Edamame beans** – these are immature soya beans and can be bought fresh or frozen.
- **Tofu, also known as soya bean curd** – this is a concentrated form of soya used in Asian foods such as stir fries, miso, soups and curries.
- **Soya flour** – often used in baked foods such as bread, cakes and biscuits.
- **Infant foods** – some may contain soya flour.
- **Soya milk**

- **Vegetable protein** – including hydrolysed vegetable protein (HVP) and textured vegetable protein (TVP).
- **Lecithin (E322)** – an emulsifier normally made from unrefined soya oil and occasionally from rapeseed oil. The risk of reaction may be small but speak to your doctor or allergy specialist about whether soya lecithin is safe for you.
- **Soya sauce** – also known as soy sauce, often used in multi-cultural foods and to add a savoury flavour to soups, gravies, stews and sauces.
- **Medicines** – always ask your pharmacist if soya is an ingredient of medicines.

Soya oil

Soya oil is sometimes used in salad dressings, margarines and spreads. **Fully refined** soya oils are very **unlikely** to cause allergic reactions in people with soya allergy because the refining process removes the soya protein (the part of the soya which causes the allergic reaction).

It's more likely that **unrefined** soya oil would cause allergic reactions as it's likely to contain small amounts of soya protein.

In the UK, food allergen labelling regulations say the following:

- **unrefined** soya oil must be declared and highlighted in the ingredients list on food labels, in bold for example. It may be written simply as 'soya oil'.
- **fully refined** soya oil still needs to be included in the ingredients list but does **not** have to be highlighted.

Should I avoid other legumes?

If you react to one member of the legume family, such as soya, it's possible you could react to another, such as peas, beans or lentils. This is known as "cross-reactivity", where the proteins in one legume are similar to the proteins in another. This is rare but discuss it with your doctor or allergy specialist.

Children with soya allergy are often also allergic to peanuts.

Soya-based materials in pillows

A small number of people have had reactions that are believed to have been caused by soya-based materials used to stuff pillows. All of them had a history of food-related hay fever and asthma. If you are allergic to soya, check the contents label of your pillows.

Can babies be fed soya?

Soya-based infant formulas are **not** suitable for babies less than six months old due to the content of phyto-oestrogens. After six months, it may be suitable for some children but speak to your GP or allergy specialist first.

In the UK, soya-based infant formula is not generally recommended by healthcare professionals for infants with cow's milk allergy, as some are also allergic to soya protein. Between 10-14% of infants with milk allergy are also allergic to soya.

Can soya allergy be outgrown?

Allergy to soya usually starts in early infancy and it's thought that around half of children will outgrow it by the age of 7. It is important to have regular follow-up appointments with your allergy specialist and, if you believe your child may have outgrown their allergy and have no appointments planned, ask for an appointment.

Learn more about [outgrowing childhood food allergies](#).

Key messages

- Visit your GP if you think you might have a soya allergy.
- If you are prescribed adrenaline, carry **two** devices with you **at all times**.
- Read food labels carefully and ask staff about ingredients in restaurants, takeaways and cafes.
- Speak to your allergy specialist about which foods to avoid.
- Speak to a dietitian or nutritionist about alternatives to soya to make sure you are getting enough nutrients, especially if you eat a vegan diet.

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 Lisa Brigstocke, GP and allergy specialist doctor.

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 you can find our podcast [here](#).