Lupin allergy: The facts

Lupin seeds can be used to make flour. Lupin flour may be found as an ingredient in pastas and baked goods such as waffles or pancakes, especially in products imported from other parts of Europe. If you think you might be allergic to lupin, visit your GP who can refer you to an allergy specialist if needed.

What is lupin allergy?

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

What is lupin?

The lupin is a popular flower with tall, colourful spikes. Some species of lupin are also grown for their seeds which can be used in foods. The seeds are normally crushed to make lupin flour which can be used as an ingredient when making pasta, pancakes, and baked goods such as pastries and pies. Lupin is not commonly used as an ingredient in products produced in the UK but is used more commonly in mainland Europe. This means that Lupin allergy is more common in other parts of Europe where it is used in foods more often.

Lupin is a type of legume, which is the same plant family that peanuts belong to. This means some people with peanut allergy may also be allergic to lupin as they contain similar proteins. However, you do not need to automatically avoid lupin if you are allergic to peanuts as only a small number of people with peanut allergy will also be allergic to lupin.

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What are the symptoms of lupin allergy?

The symptoms of lupin allergy usually come on quickly, within minutes of eating the food.

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.

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.

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.

Read more about anaphylaxis.

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Getting a diagnosis

If you think you may be allergic to lupin, see your GP who can 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).

It's important to get a referral even if your symptoms were mild because it can be hard to tell if future allergic reactions could be more serious.

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 lupin.

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

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.

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The adrenaline auto-injectors prescribed in the UK are:

- 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 lupin

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

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

Lupin is sometimes labelled as lupine, lupin flour, lupin seed or lupin bean.

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 lupin. Ask staff directly if the food you'd like to buy contains lupin and if there is a risk of cross-contamination and let them know that even small quantities can cause a reaction. Don't be afraid to ask staff to check with the chef.

Read about shopping and preparing food.

Which foods contain lupin?

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Lupin is only used in a small number of products in the UK but is more common in products that have been imported from Europe. These include:

- Pastry cases
- Pies
- Waffles
- Pancakes
- Biscuits and cookies
- Part baked products such as bread rolls
- Crepes
- Products containing breadcrumbs
- Processed meat products such as burgers and sausages
- Pizzas
- Deep-coated vegetables such as onion rings
- Some vegan products - where lupin is a substitute for milk
- Some gluten free products

What else do I need to know?

- Bread sold at French markets in the UK may be made with lupin flour.
- Health food shops sometimes sell more products made with lupin than other shops.
- Take care when travelling to Europe, as lupin flour is used more widely there.
- Occasionally, lupin flour can be used for other foods such as in burgers, sausages and onion rings.
- Lupin is sometimes used in cosmetics. It's not clear if this can cause an allergic reaction so it's safest to avoid products containing lupin. Look out for the word "lupinus" on packaging, which is the Latin word for lupin.

Are lupin flowers a problem?

If you are allergic to lupin as a food, it's possible you could have a skin reaction such as a rash if you handle the seeds of the garden flower. At least one person has also been known to have a serious skin reaction after handling the plant (rather than the seeds). It may be safest to avoid touching lupin plants and seeds if you have a lupin allergy.

Key messages

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- Speak to your GP if you think you may have a lupin allergy or you have had an allergic reaction and you don't know what caused it.
- Read food labels carefully and ask staff about ingredients in restaurants, takeaways and cafes.
- Take extra care if you visit other countries in Europe or when eating foods imported from Europe.
- If you are prescribed adrenaline auto-injectors, carry them with you at all times.
- Know how to use your adrenaline auto-injectors and what to do in an emergency.
- If you have asthma, make sure it's well managed.

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 Rachel de Boer, Principal Paediatric Dietitian, Evelina Children's Hospital, London

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.

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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.

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