

Your quick guide to: Reactions to Legumes

Legumes are a group of foods that belong to the Fabaceae family and include beans, lentils, pulses, peas, lupin, fenugreek, soya, and peanut. Individuals with legume allergy may need to avoid only one legume or may have reactions to other legumes. People with a peanut and/or soya allergy do not automatically need to avoid all other legumes. Please refer to our factsheets on [peanut](#) and [soya](#) here.

More attention has been given to legumes because of the rising trend of plant-based vegetarian and vegan diets. Legumes are a dietary staple in these diets and present with many nutritional benefits. Increased consumption and use of legumes in foods may be one reason why reports of legume allergy are on the rise.

How common is legume allergy?

There is significant variation in legume allergy across different countries, likely due to cultural diversity and dietary habits. In the UK, peanut is the legume most often causing symptoms.

In other countries, such as India, lentils and chickpeas are a staple food and allergy is commonly reported whereas lupin allergy is seen frequently in European countries such as France, and in Norway, due to the addition of lupin to bread, in place of soya flour. In Spain, legume allergy is the fifth most common food allergy for children under five years.

Lupin, peanut, and soya must be clearly labelled on food packaging as they are three of the 14 allergens required to be listed by law. Unfortunately, there is no requirement for other legumes. It is thought that legumes are the next most common group outside the main allergens, although there is limited research to date.

Symptoms of legume allergy

Like other food allergens, the symptoms of legume allergy can present as mild such as itching, hives or vomiting to more life-threatening reactions that affect breathing and circulation that require an adrenal autoinjector (anaphylaxis). See further details on our website on [how to treat a life-threatening reaction here](#).

Where will I find legumes?

Legumes can be found in a wide range of foods. Some common foods include:

- Vegetarian food and plant-based meat alternatives (vegetarian sausages, burgers, sauces)
- Processed meats (sausages, burgers, hotdogs, scotch eggs)
- Gluten and free from free foods (gram, pea and bean flours used in bread products, pastry, breadcrumbs, batter. Lentil and pea used as pasta substitute)
- Baking mixes and baked goods
- Cereals
- Sauces
- Salads
- Alternative milk products such as milk, cheese, yoghurts
- Hummus
- Falafel
- Crisps/snacks
- Soups
- Chinese cuisine such as stir fries and fried rice
- Indian cuisine such as dahl and bhaajis
- Mexican cuisine such as chilli, burritos and enchiladas
- Mediterranean dishes such as cassoulet

The increase in pea protein in food and drink manufacturing has increased in recent years as manufacturers respond to consumer interest in plant-based and high-protein foods and sustainable diets.

Types of legumes

There are various foods that fall under the legume 'umbrella'; however, many are not part of the 14 main allergens which means food manufacturers do not have to highlight legumes as a potential allergen in an ingredients list. This can make it particularly difficult to identify and time consuming when reading food labels. It is important to read the ingredients list carefully every time even if you have had the product before.

Did you know...

Chickpeas are also known as garbanzo bean and gram

Peanut and **soya** are part of the legume family

There are **over 20** different **types of beans**

Legumes can be found in a wide range of foods, **most commonly** in **vegetarian** food and **plant-based** meat alternatives

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Below highlights the different legume groups and where some of these foods are typically found:

Category/Group	Type	Food examples
Beans	Adzuki, black, borlotti, broad (lima), cannellini, carob, flageolet bean, faba, French, green, haricot, kidney, lima, marrow, mung, pinto, runner, soya, string, turtle	Tinned beans, Baked beans, Salads, Chilli con carne, Burritos, Coconut milk (faba bean), Mediterranean dishes, Vegan/vegetarian meals
Lentils	Brown, green, red, puy, beluga, pardina	Poppodums (lentil flour), Chapatis, Puri, Dhal, Docas, Bhaajis, Pakoras, Soups, Lentil crisps, Vegan/vegetarian dishes such as lentil cottage pie
Peas	Green, snow, sugar snap, mangetout, black eyed, pigeon pea, wasabi peas, chickpea (also known as garbanzo bean or gram)	Mushy peas, Processed meat, Milk alternatives (e.g pea milk or alongside other milks such as oat milk), Bread, bagels, Indian style bread, Gluten free bakery products, Bombay mix, Paella, risottos, Vegan/vegetarian dishes, Sorbets, Gram flour (chickpeas), Hummus (chickpeas), Falafel (chickpea), Soups
Lupin	Seeds, flour	Lupin flour is commonly used in European pastries, cakes, biscuits, pizza bases, gluten free products
Fenugreek, methi	Leaves, seeds	Curry powder, spice blends, Indian dishes

What about...

There are also reports of other legumes causing a potential reaction that you may not be aware of, these include...

- Guar gum: it is used as a thickener and emulsifier in foods such as yoghurts and salad dressings
- Tragacanth is also a thickening agent and used as a stabiliser in food products such as salads and sauces. It is obtained from dried sap of several species in Middle Eastern legumes
- Liquorice root is used as a flavouring in confectionary, drinks and other food.
- Tamarind is from a brown bean pod and is used as a paste, concentrate or powder to flavour food such as chutneys and curries
- Reports of reactions for guar gum, tragacanth, liquorice and tamarind are considered rare as there is limited research to date
- Carob bean is commonly used as a thickening agent in anti-reflux formula. There have been case reports of allergic reactions in infants. In adults, reactions to carob have happened when exposed to carob flour in the workplace

There have been case reports of allergic reactions from the inhalation of steam from boiling lentils. Reactions induced by inhaling fumes from legumes are considered rare. If you are concerned discuss further with your allergy team.

Cross reactivity

Cross reactivity with other legumes can happen because certain proteins in one food can share similar structures in another food. Peanut allergy has been associated with lentil, chickpea and pea (although not commonly reported). Pea has also been associated with lentil allergy. In the Mediterranean, where chickpea, lentil and pea are widely consumed, cross reactivity has been frequently reported.

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In a small UK study looking at 32 children with confirmed allergy to lentils, beans, chickpeas and/or green beans, 72% had allergy to one legume, with red lentil and chickpea being most common. In a Spanish study, chickpea allergy was frequently associated with lentil allergy.

Having one legume allergy does not mean all legumes should be avoided. However, it is advised to speak with your allergy specialist to understand further what legumes you can tolerate and what should be avoided.

References

- Aggett, P.J., Agostoni, C., Goulet, O., Hernell, O., Koletzko, B., Lafeber, H.L., Michaelsen, K.F., Milla, P., Rigo, J. and Weaver, L.T., 2002. Antireflux or antiregurgitation milk products for infants and young children: a commentary by the ESPGHAN Committee on Nutrition. *Journal of pediatric gastroenterology and nutrition*, 34(5), pp.496-498.
- Ayşenur, K., Akan, A., Mustafa, E., Müge, T. and Kocabaş, C.N., 2012. Anaphylaxis induced by lentil inhalation. *Asian Pac J Allergy Immunol*, 30(2), pp.167-169.
- Kakleas, K., Luyt, D., Foley, G. and Noimark, L., 2020. Is it necessary to avoid all legumes in legume allergy?. *Pediatric allergy and immunology: official publication of the European Society of Pediatric Allergy and Immunology*.
- Nagdee, T., Proudfoot, C., Ingley, A., Levy, D., Rao, N., Jeng, T., Farrer, S., Padhye, S., Taylor, J., Dixon, S. and Lumsden, C., 2021. Non "G8" food allergies in the North of England and North Wales: A focus on less common food allergens. *Clinical & experimental allergy*, 51(12), pp.1658-1659.
- Savino, F., Muratore, M.C., Silvestro, L., Oggero, R. and Mostert, M., 1999. Allergy to carob gum in an infant. *Journal of pediatric gastroenterology and nutrition*, 29(4), pp.475-476.
- Skypala, I. and Venter, C. eds., 2009. *Food hypersensitivity: diagnosing and managing food allergies and intolerance*. John Wiley & Sons.
- Taylor, S.L. and Hefle, S.L., 2001. Ingredient and labeling issues associated with allergenic foods. *Allergy*, 56, pp.64-69.
- Taylor, S.L., Marsh, J.T., Koppelman, S.J., Kabourek, J.L., Johnson, P.E. and Baumert, J.L., 2021. A perspective on pea allergy and pea allergens. *Trends in Food Science & Technology*, 116, pp.186-198.
- Verma, A.K., Kumar, S., Das, M. and Dwivedi, P.D., 2013. A comprehensive review of legume allergy. *Clinical reviews in allergy & immunology*, 45(1), pp.30-46.

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Additional Resources / References

- Peanut Allergy
<https://www.allergyuk.org/resources/peanut-allergy-factsheet/>
- Soya Allergy
<https://www.allergyuk.org/resources/soya-allergy-factsheet/>

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