

Peanut Allergy and Tree Nut Allergy – The Facts

This Factsheet aims to answer some of the questions you and your family might have about living with peanut or tree nut allergy. Our aim is to help you minimise risks and learn how to treat an allergic reaction should it occur.

The peanut is a legume, related botanically to foods such as peas, beans and lentils. Tree nuts are in a different botanical category and include almonds, hazelnuts, walnuts, cashew nuts, pecans, Brazil nuts, pistachios and macadamia nuts. As the botanical category is different, many people only react to peanut and not tree nuts, and vice versa.

A key message for people with peanut or tree nut allergy is take your allergy seriously. You should visit your GP and ask to be referred to an NHS allergy clinic for a proper assessment and high-quality advice.

How common are peanut and tree nut allergies?

Nut allergies are common and affect approximately 1 in 50 children and around 1 in 200 adults in the UK.

What are the symptoms that could occur?

The symptoms of a food allergy can come on rapidly, within minutes of eating the food. These may include nettle rash (otherwise known as hives or urticaria) anywhere on the body, or a tingling or itchy feeling in the mouth.

More serious symptoms may include:

- Swelling in the throat and/or mouth
- Difficulty breathing
- Severe asthma
- Colicky abdominal (stomach) pain
- Feeling faint, dizzy, or very sleepy

The term for this more serious form of allergy is anaphylaxis. In extreme cases there could be a

dramatic fall in blood pressure (anaphylactic shock). The person may become weak and floppy and may have a sense of something terrible happening. This may lead to collapse and unconsciousness.

Most healthcare professionals consider an allergic reaction to be anaphylaxis when it involves difficulty in breathing or affects the heart rhythm or blood pressure. Click [here](#) to read our Anaphylaxis factsheet for further information.

How can I get a diagnosis?

If you suspect or know you have a peanut or tree nut allergy you need to go to your GP and seek a referral to an NHS allergy clinic for a thorough assessment. This will include tests to confirm which types of nut are responsible for causing your symptoms. Your GP can locate an allergy clinic by visiting the website of the British Society for Allergy and Clinical Immunology (BSACI): <https://www.bsaci.org/find-a-clinic/index.htm>

A referral is important even if your symptoms were mild because it is possible that a future allergic reaction could be more severe. According to experts you are at high risk if:

- You have had a severe reaction in the past, such as swelling in the throat, breathing difficulties (even mild) or faintness
- You have asthma as well as an allergy, particularly if that asthma requires regular use of preventer inhalers
- You have had an allergic reaction to a tiny amount of peanut or tree nut

How is an allergic reaction treated?

If peanut allergy or tree nut allergy is confirmed, you may be prescribed adrenaline auto-injectors (AAIs) for use in an emergency. The UK's Medicines and Healthcare Products Regulatory Agency (MHRA) and the National Institute for Health and Care Excellence (NICE) recommend that medical professionals prescribe two AAIs, which patients should carry at all times in case one is broken or misfires, or a second injection is needed before emergency help arrives. Anaphylaxis UK supports this view. Read our Adrenaline factsheet for further information.

<https://www.anaphylaxis.org.uk/fact-sheet/adrenaline/>

After an adrenaline injection has been given, someone must dial 999 immediately, as symptoms may return after a short period and more than one injection may be required. The emergency service operator must be told the person is suffering from anaphylaxis (pronounced ana-fill-axis).

The adrenaline auto-injectors available in the UK are EpiPen, Jext and Emerade. If you are prescribed AAI's, you will need to know how to use them and regular training in their use is essential. Correct usage of an injector will significantly reduce the risk of an allergic reaction progressing. Ask your GP or allergist for advice. You can also find help on the website relevant to the injector you carry:

www.epipen.co.uk

www.jext.co.uk

www.emerade-bausch.co.uk

What are the risks and how can they be managed?

A recent review of fatal food anaphylaxis data in the UK found that peanut and tree nut allergy are the most common known food triggers, however, the proportion of deaths due to peanut and tree nut allergy from 1998 to 2018 has decreased in the UK.

The age of the person with the allergy could be a risk factor. One study found fatal reactions to food are more likely to occur between the ages of 17-27. As young people begin to manage their allergies for themselves, they may be less cautious with regard to risk, reluctant to ask direct questions in restaurants and subject to peer pressure.

Infants with severe eczema and/or egg allergy have a higher risk of peanut allergy. The risk of developing peanut allergy can be reduced in infants at high risk by introducing food containing peanut into infants' diets early during weaning. Infant weaning guidance can be found at:

<https://www.anaphylaxis.org.uk/living-with-serious-allergies/infant-weaning/>

Once you have a confirmed peanut or tree nut allergy diagnosis, it is important to exclude your allergen from your diet. Read food labels carefully and question staff in restaurants, takeaways and other catering establishments. You can find more information on shopping and preparing food at:

<https://www.anaphylaxis.org.uk/living-with-serious-allergies/shopping-and-preparing-food/>

Top food tips for managing nut allergy

1. Watch out for satay sauce (made with peanuts), pesto sauce (which can contain tree nuts such as cashew nuts) and marzipan and praline (confectionery products made with nuts). Salad dressings may contain nut oils.
2. Curries and other Asian dishes are high risk because many of them contain peanuts or tree nuts and their presence may not be obvious if the food is spicy. Studies focusing on takeaway meals have shown that even when nut-free meals were ordered, a significant proportion still contained nuts.
3. Foods likely to contain peanuts or tree nuts include the following: cakes, biscuits, pastries, cereal bars, confectionery, ice cream, desserts, vegetarian products, salads and salad dressings. This list is not exhaustive – take particular caution with snack type foods.
4. Watch out for peanut shoots as they are being sold in some UK shops. They can be used in stir-fry dishes and salads and could be mistaken for bean sprouts.
5. Roasting and heat treatment do not reduce the allergenicity (capacity to produce an allergic reaction) of peanuts or tree nuts. In fact, laboratory experiments have suggested that roasting and heating peanuts (but not boiling) may increase their allergenicity.

Which other foods should I avoid?

Some people with peanut allergy may be allergic to tree nuts, and some people allergic to one tree nut may be allergic to others. Research suggests a significant number of people with cashew nut allergy are also allergic to pistachios. There is a similar link between walnut and pecan nuts. There is also the possibility of certain nuts coming into contact with others during food production. Eating nuts from the shells helps reduce the risk of cross-contamination from other nuts.

If you have an allergy to peanut or to one type of tree nut, it is important to have allergy testing for other nuts so your allergy specialist can advise on including them in your diet. Research suggests it is important to include nuts you are not allergic to in your diet, as this helps to

maintain tolerance and avoid developing an allergy to those nuts in the future. Introduction of other nuts must only be done as advised by your allergy specialist, after allergy testing.

Legumes: Peanuts are actually legumes. A small number of people with peanut allergy may react to other legumes (such as soya, peas, chickpeas, fenugreek, beans and lentils). One research study found 5% of children with a legume allergy reacted to more than one legume.

Lupin: Lupin is a legume. Studies have shown that some people with peanut allergy react to lupin.

Sesame seeds: A US study found children with a history of reactions to both peanuts and tree nuts were more likely to have allergic reactions to sesame. A recent European study also found a link between peanut, tree nut and sesame seed allergy.

Other foods: People with nut allergy frequently ask if they should avoid certain foods with “nut” in the name – even those that are botanically different to tree nuts. These include pine nuts, coconut, nutmeg and chestnut. If you are allergic to nuts and have never had a reaction to any of these foods, it is likely that they are safe for you to eat.

Your allergy specialist will be able to give you specific advice regarding which foods you should avoid.

Is contact through touch or smell a risk?

People with peanut allergy are often concerned that casual contact with peanut – such as through touch or smell – could trigger a life-threatening reaction.

A US study gives some reassurance. Researchers observed 30 children with severe peanut allergy while they were being exposed to peanut butter through touch and smell. Accidental contact was simulated by pressing a dab of peanut butter on the child's back for one minute, and by holding a dish containing three ounces of peanut butter one foot from the child's nose for 10 minutes.

- None of the children experienced anaphylaxis.
- There were no reactions to inhalation.
- During contact with the back, one-third of the children had a mild reaction, such as redness, itching, or a single hive limited to the site of contact. Medication was not needed to treat these reactions.

Researchers concluded that at least 90% of similarly allergic children would not experience a

severe reaction to similar exposures. However, the study looked at peanut butter but not peanut in other forms.

In another study, 84 children with peanut allergy underwent an airborne peanut challenge, 0.5 metres from a bowl of peanuts for 30 minutes under controlled conditions with no moderate or severe allergic reactions observed. In addition, airborne peanut proteins from roasted and dry-roasted peanuts were collected at varying distances. The researchers concluded only small amounts of biologically active peanut proteins were detected in the air and seem unlikely to trigger moderate or severe allergic reactions.

Is there a risk from peanut oils or nut oils?

Foods containing both refined and unrefined peanut oil must be labelled with reference to peanut. Unrefined (also called crude) peanut oil is more likely to cause symptoms. A study of 60 peanut allergic people showed none reacted to swallowing refined peanut oil and 6 reacted to unrefined peanut oil.

Peanut oil (sometimes known as groundnut oil) may be used for frying in some fish and chip shops and this may be unrefined and therefore risky. Specialty oils, such as walnut oil, contain significant levels of protein and should be avoided. Read our Peanut oil factsheet and Vegetable oils article for further information available at:

<https://www.anaphylaxis.org.uk/factsheets/>

Personal care products and medicines

Medicines, soaps, cosmetics and personal care products sometimes contain peanut or nut oils. It is difficult to determine the level of risk posed by these products, so we advise playing safe and avoiding them. Labels may show ingredients in Latin (e.g. arachis is the Latin name for peanut). Click [here](#) to read our cosmetics and personal care products factsheet for further information.

What are the risks during air travel?

Some people with peanut allergy report that they experience symptoms when peanut snacks are handed out to passengers with their drinks during air travel. The most likely cause of these reactions is skin contact. If you touch a fold-down tray or another surface that has previously

been touched by a passenger eating peanuts, and then touch your eyes or mouth, you could have a reaction. To minimise the risk, carry “wet wipes” to clean surfaces as soon as you get on the plane.

A recent review paper says: “Studies have shown that peanut does not easily become airborne, and this is not a likely route of exposure. Peanut dust on unwashed surfaces that becomes inadvertently ingested, or false presumption that a food is safe that actually contains peanuts are the 2 most likely sources of potential peanut exposure in flight.”

However, you must be guided by your doctor or allergy specialist, and your allergy history. If you know you are at the high end of the risk scale (for example, you have reacted by inhaling peanut allergen in the past) then it would be sensible to contact the airline well in advance to request that peanuts are not distributed on your flight.

Will your allergy be lifelong?

There have been several studies investigating whether children will outgrow peanut and tree nut allergy, with figures ranging between 10 and 20% outgrowing the allergy. Where allergy is outgrown, the age varies significantly, and it is therefore important for your child to have a regular review with the allergy specialist.

Hopes for the future

There have been major advances in the development of treatments for peanut allergy including oral immunotherapy, epicutaneous immunotherapy (skin patches) and peanut allergy vaccine. Read our Allergen Immunotherapy factsheet for further information and keep an eye on the Latest News section of our website for any development updates.

Key messages:

- If you suspect or know you have a peanut or tree nut allergy it is important to visit your GP.
- If you are prescribed AAls, carry them with you at all times.
- Read food labels carefully and question staff in restaurants, takeaways and other catering establishments.
- Always be guided by your allergy specialist as to which foods you should avoid.
- There is hope for the future with major advances in the development of treatments for peanut allergy.

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, or you would like a version of this factsheet with the references included, please contact info@anaphylaxis.org.uk and we will gladly supply details.

Reviewers

The content of this Factsheet has been Peer Reviewed by Prof John Warner, Professor of Paediatrics, Imperial College, London.

Disclosures

Professor John Warner is co-author of three of the sources used to develop 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 and local support groups. We also campaign and 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 @anaphylaxixUK, LinkedIn, Instagram @anaphylaxisUK, Twitter @AnaphylaxisUK and YouTube.