



The information in this Factsheet has been developed to help you understand more about tree nut allergy. Tree nut allergy refers to individuals who are allergic to one or more than one tree nut.

How common is Tree Nut allergy?

Tree nuts are a common cause of food allergy in children and adults. When someone has a tree nut allergy their immune system is reacting to the proteins in the nut.

It is most common to develop a nut allergy before the age of 5, however it is also possible for older children and adults to develop allergic symptoms, even when tree nuts have been eaten previously without any symptoms of allergy. Tree nut allergy appears to be getting more common in both children and adults. Allergies to tree nuts tend to be persistent and it is rare for people to grow out of them, especially over the age of five.

Who is at risk of Tree Nut allergy?

- Those with an existing peanut allergy have an increased likelihood of around 30-40% of developing a tree nut allergy as similar proteins are found in both types of nuts.
- Having an existing tree nut allergy does not automatically mean an allergy to peanuts although it is not uncommon to be allergic to both some tree nuts and peanuts.

- Infants with eczema and/or an egg allergy are more likely to develop other food allergies

More about Tree Nuts

Tree nuts as the name suggests, are grown on trees. It is possible to be allergic to one or more types of tree nuts. An allergy to one tree nut does not mean an allergy to all tree nuts, however there is an increased likelihood of having an allergy to more than one tree nut. This is due to similar proteins in the different tree nuts and is referred to as cross-reactivity. People with an allergy to tree nuts also have an increased risk of sesame allergy due to cross reactivity. It is important to know that tree nuts are from a different family to peanuts that are a legume. There are eight tree nuts in the tree nut family including:

- Almonds
- Brazil nuts
- Cashews
- Hazel nuts
- Macadamia
- Pecan
- Pistachios
- Walnuts
- Shea nuts are also a tree-nut and are being increasingly used in confectionary in the form of butter or oil. Due to the processing of foods the amount of protein contained is small and the risk of a reaction is very low, however some people with a tree-nut allergy may choose to avoid it.



For more help, contact the **Allergy UK helpline:**
Monday to Friday, 9am to 5pm
01322 619 898

info@allergyuk.org

Key facts

Allergies to tree nuts tend to be persistent and it is rare for people to grow out of them, especially over the age of five

Those with an existing peanut allergy have an increased likelihood of around 30-40% of developing a tree nut allergy

Chestnut, coconut, water chestnut, nutmeg, butternut squash and pine nuts are NOT types of nuts





What are the signs and symptoms of an allergic reaction to Tree Nuts?

Signs and symptoms usually occur within minutes of contact with tree nuts, but can also occur up to two hours later. Most allergic reactions to tree nuts are mild but for some people they can also be moderate or severe. Anaphylaxis (pronounced ana-fil-laxis) is the most severe form of allergic reaction, which can be life threatening.

Mild to moderate symptoms include:

- Itchy mouth, tongue and throat
- Swelling of lips, around the eyes or face
- Red raised itchy rash (often called nettle rash, hives or urticaria)
- Vomiting, nausea, abdominal pain and diarrhoea
- Runny nose and sneezing

Severe symptoms of anaphylaxis include:

- Swelling of the tongue and/or throat
- Difficulty in swallowing or speaking
- Change in voice (hoarse voice)
- Wheeze (whistling noise) or persistent cough
- Difficult or noisy breathing
- Dizziness, collapse, loss of consciousness (due to a drop in blood pressure)
- Pale, floppy, sudden sleepiness in babies.

Any one or more of the severe symptoms are a sign of a severe allergic reaction (anaphylaxis) and should be treated as a medical emergency. If available, an adrenaline auto-injector device (containing the medicine 'adrenaline') should be given without delay and an ambulance called. It is important to tell the operator that the person is having 'anaphylaxis', so medical advice and priority can be initiated.

Please see our Factsheet on [anaphylaxis and severe allergic reactions](#) for more information and guidance on what to do when these severe symptoms occur.

Types of allergic reaction

It is commonly misunderstood that food allergic reactions become more severe each time they happen. Reactions are unpredictable and there is no reliable way of knowing how an individual may react on future exposures, meaning that being prepared by knowing the signs and symptoms, and having an individualised allergy action plan is important.

There are several reasons why an allergic reaction may be more severe, including how much nut allergen has been eaten and other factors such as uncontrolled asthma, exercise, and infection. Some people do seem predisposed to more severe reactions with a previous anaphylactic reaction increasing the risk of a further one.

Diagnosing a Tree Nut allergy

It is important to seek advice from a Healthcare professional if a tree nut allergy is suspected. In the first instance, this will usually be your GP. They may arrange for allergy testing to be carried out or refer you to a specialist allergy service for skin prick testing and/or specific IgE blood testing to tree nuts. These tests help determine if a food allergy is likely although a positive test on its own does not diagnose food allergy. Allergy tests cannot predict how mild or severe an allergic reaction will be, or when an allergic reaction is likely to happen.

Alternative types of allergy testing other than those recommended by a Healthcare professional are not advised as these may be from an unreliable source with no value in diagnosing allergy and could lead to removing food from the diet that does not actually need to be avoided. If you are unsure, call Allergy UK's Helpline to be signposted to your nearest NHS or private allergy service.

***If you have had cause for concern over tree nut allergy and have been avoiding these nuts, it is**



important not to reintroduce tree nuts back into the diet without medical advice. Advice on whether it is safe to eat specific tree nuts and whether there is a need to avoid peanut should be sought from your GP/allergy specialist*.

Living with a tree nut allergy

There is currently no cure for a tree nut allergy, the complete avoidance of tree nuts and foods which contain tree nuts is an important part of living with a tree nut allergy. Tree nuts are widely used in a variety of foods and are a common ingredient in different types of cooking like Asian, Chinese, Indian, Thai and Vietnamese cuisine. They can also be found in the following foods baked goods, cereals, ice cream and desserts. Avoid foods which contain tree nuts which could be under any of the following names, some are not as obvious as you would think!

- Nut butters (such as almond or cashew)
- Nut milks (such as almond or hazelnut)
- Biscuits, pastries and cakes with nuts as ingredients e.g. chocolate brownies
- Nutella (Hazelnut)
- Ferrero Rocher (Hazelnut)
- Toblerone (almond)
- Nougat
- Ice cream (e.g. nut flavoured like pistachio as well as nut toppings)
- Gluten free foods often contains almond meal
- Marzipan
- Food flavourings (almond)
- Pesto (may contain other tree nuts as well as pine nuts)
- Breakfast cereals such as muesli or honey nut cornflakes
- Cereal bars
- Veggie burgers/nut roasts
- Mixed nuts and raisins
- Salads with added nuts or nut oils

It is important to carefully check the ingredients list

on food items (specifically those produced outside of the EU as they are not required to include nuts as a highlighted food allergen).

Management of tree nut allergy: medications and allergy action plans

In the case of a severe allergic reaction (anaphylaxis) adrenaline is the medication needed to treat allergic symptoms and should be given as soon as possible after symptoms of anaphylaxis are recognised.

Adrenaline auto-injectors, also known as adrenaline pens, are devices that contain the emergency medicine 'adrenaline' that can be given in the case of a severe (anaphylactic) reaction to tree nuts. If you or your child are prescribed an adrenaline auto-injector it is important that you are shown how to use it by the doctor, nurse or pharmacist. All these devices are available as trainer pens from the adrenaline pen manufacturers and they all work differently. They are very useful for practicing or showing others how to use them (they do not contain a needle or medication).

Expiry dates should be noted and reminder services are available from some of the adrenaline pen websites. Adrenaline auto-injectors that have been used or due to expire should be replaced immediately. Allergy medication prescribed for a child with a food allergy should be documented on a written allergy action plan for the child's school or after school clubs or activities. Allergy action plans are individual to the person, listing their food allergies and providing advice on the signs and symptoms of an allergic reaction, as well as instructions on what medication to give and when.

Allergy action plans for children can be downloaded for free from the following website: <http://www.bsaci.org/about/download-paediatric-allergy-action-plans>. These action plans need to be completed by a health professional.



Adrenaline auto-injectors should be kept away from bright light and extremes of temperatures but they should always be with, or easily available to, the food allergic person (for example not in a suitcase in the luggage hold of an aeroplane).

Not all people with food allergy need to have or are prescribed an adrenaline auto-injector. This decision is made by a Health professional (GP/Allergy specialist/immunologist) on an individual basis and will depend on need, including the severity of previous allergic reactions, age, and geographical location from medical help.

If you have been prescribed an adrenaline auto injector device by your doctor it is recommended that you carry the adrenaline auto-injector(s) at all times. Having well controlled asthma is important especially where food allergy and asthma are combined. This means recognising when asthma symptoms are worsening, knowing asthma triggers and avoiding them and knowing how and when to use a preventer and reliever inhaler and spacer, as well as seeing a Health professional for a regular asthma review.

Reading a food label

In the European Union (EU) ingredients lists on food labels have to clearly emphasise (for example in bold or highlighted) whether they contain any of the 14 most common allergens, these include peanuts.

Outside of the EU food labelling laws will be different so it is important to check ingredients carefully, especially where food has been imported from outside of the EU or when eating out whilst on holiday. Example of a food label highlighting that it contains a tree nut:

INGREDIENTS: Wholewheat (68%), Dried Fruit (27%) (Raisins, Coconut, Banana {Banana, Coconut Oil, Sugar, Flavouring}, Apple, **Hazelnuts**), Sugar, Salt, **Barley** Malt Flavouring, Vitamins & Minerals: Niacin, Iron, Vitamin B6, Vitamin B2 (Riboflavin), Vitamin B1

(Thiamin), Folic Acid, Vitamin B12

Allergy Information: May Contain: Nuts

Precautionary labelling: 'May contain' and 'made in a factory' statements

Currently there is no law to recommend when these statements should be used on a food product. There is large variation between products, but generally, snacks and dry foods such as cereals, cereal bars, chocolate, biscuits and nuts are at more risk of cross-contamination with allergens, at source and during manufacturing, than other foods.

It is safest to avoid all foods with a precautionary "may contain" nuts warning. However, your allergy specialist will be able to give you individually tailored advice to help assess risk and give appropriate management. For some people with a nut allergy this level of avoidance may not be necessary after this type of risk assessment.

Nut oils

Some oils contain nuts and may be a risk to those with a tree nut allergy. They can be split into two categories:

- Refined. These are highly processed which reduces the likelihood of nut proteins remaining in the oil. Therefore these are unlikely to cause an allergic reaction.
- Unrefined. Examples include: cold pressed or un-processed such as almond and walnut oil. These may contain sufficient amounts of tree-nut proteins to cause an allergic reaction. **These should be avoided by people with an allergy to those specific nuts.**

It is also important to check the ingredients of vegetable oils as they occasionally can contain traces of tree nuts. If they do it has to be highlighted in the ingredients.



Cross contamination

Cross contamination occurs when a nut free food comes into contact with nut proteins accidentally. This could be in the manufacturing process, storage or food preparation. Even tiny traces of tree nut proteins can cause an allergic reaction, in very tree nut sensitive individuals, if they are eaten. At home ensure that all work surfaces and chopping boards are well cleaned using hot, soapy water. Use separate containers for jams, butter etc. especially if you are using peanut butter and always use clean utensils for serving them.

Misleading nut-named foods

Despite having the word 'nut' in their name the following foods are **not** from the tree nut family so do **not** need to be avoided if you have a tree nut allergy, unless you are also allergic to one of the following foods.

- Chestnut- is an edible product of a group of trees in the beech family
- Coconut - the fruit (seed) of a coconut palm tree
- Water chestnut - aquatic vegetable
- Nutmeg - seed of the nutmeg tree
- Butternut Squash - technically a fruit
- Pine nut - the edible seeds of pine trees

Eating out

Businesses selling food are required by EU law to provide information on allergens in food. Therefore don't be afraid to ask what foods contain, as it is not always clear from menu descriptions. It is important to highlight a tree nut allergy and request that people cooking and handling food are cautious and avoid cross contamination. It is also helpful to telephone places you are planning to visit before you go to make sure they can cater for your dietary needs. Food establishments (café's, restaurants, market stalls, food trucks that serve the following types of food (African,

Chinese, Indian, Thai and Vietnamese are likely to use tree nuts and/or peanuts in their food).

When eating away from home with a food allergy, allergy medication should always be taken with you, or on behalf of a child, in case of accidental exposure which commonly happens when eating outside of the home.

Allergy UK are able to provide a translation card service which can be used when travelling or eating out abroad. (These are available in multiple languages at a small cost from Allergy UK's Helpline (01322 619898). These cards have English on one side and the translated food allergen(s) in the language required on the other.

They can also be used in the UK as a card written in English with the allergens you need to avoid. This can save a lot of time, and showing the card makes sure the seriousness is understood. These cards are the size of a credit card and can easily be stored in a purse, wallet or pocket.

Air travel

Many nut allergic people and their families find that air travel, in particular, can provoke anxiety about the possibility of having an allergic reaction on board. The high altitude, close proximity of fellow passengers and the re-circulated cabin air can all contribute to this fear if the cabin crew serves nuts or someone opens a packets of nuts near them.

There are many things that can be done to reduce this risk, such as making sure that hands are washed before eating or putting hands into the mouth; wiping clean the tray table and arm rests with wet wipes; requesting a nut free meal or providing your own food; avoiding airline pillows and blankets; requesting an announcement made asking that other passengers do not consume nuts/nut products, and making sure that all prescribed medication is immediately available to you in the cabin (not stored in the luggage in the hold).



There is no evidence that nut protein can be circulated in the cabin air and cause a severe reaction and such reactions are very rarely reported in flight. Where research studies have been done it has showed that the nut protein is too heavy to be circulated in this way. It is always advisable to contact the airline before booking or travelling to ask what provision is made to protect the nut allergic person on board so that an informed decision can be made. Don't forget to contact all airlines if there are connecting flights. (See our [food allergy and travel Factsheet](#) for further information.)

Food allergy alerts

Sometimes processed or pre-packaged foods have to be withdrawn or recalled from food suppliers like supermarkets and shops as there may be a risk to people who have bought or eaten these products because the allergen labelling is missing, wrong or there has been a contamination risk.

These Alerts are available from the Food Standards Agency (FSA) website. It is also possible to subscribe to the FSA's free email or SMS text message alert system to receive messages when Allergy Alerts are issued. Allergy UK also lists Allergy Alerts that have been made known to them and you can subscribe to its free email Alert system Contact the Allergy UK Helpline on 01322 619898 for more details.

Nuts and nut-named foods in skincare products and cosmetics

Sometimes tree nuts, peanuts or foods with the word 'nut' in them can be used in cosmetics such as moisturisers, soaps and shampoo. Cosmetic products must include information on the ingredients in decreasing order of the weight of the ingredient. This enables those looking to avoid a certain ingredient to be able to identify and avoid it.

Nut oils like peanut or almond oil can be used in

cosmetics and toiletries and can be a problem to those with an allergy to those foods. The amount of protein allergen that remains in a product after the processing will vary, depending on the processes used.

The risk of developing allergic sensitisation to a food via the skin or hair from oils or cosmetics containing nut is not fully understood. Shea Nut, Argan nut, and coconut are commonly used in skin and hair products. Products that come into contact with the skin that contain a food allergen should be avoided in those with a food allergy to that food ingredient.

Anxiety

Having a food allergy can be very stressful because of the fear of having an allergic reaction and the need to avoid food allergens can be time consuming and expensive when buying 'free from' or alternative foods. Feeling anxious about managing your own or child's allergy is understandable and patient organisations such as Allergy UK are here to provide support, advice and guidance to those living with, or concerned about, allergy.

Clinical contributions

Allergy UK Health Advisory Board

Dr Gary Stiefel, Consultant in Paediatric Allergy at the University Hospitals of Leicester

Allergy UK Clinical Team

Holly Shaw, Nurse Advisor; Kate Roberts, Clinical Dietetic Advisor