

Fact Sheet

Tree nut allergy



What are tree nuts?

The term *tree nut* is commonly used to mean nuts (Almond, Brazil, Cashew, Chestnut, Hazelnut, Hickory, Macadamia, Mixed nuts, Pecan, Pine, Pistachio and Walnut). This is to distinguish them from peanuts (sometimes also known as *groundnuts*) because tree nuts come from a different plant family. People who are allergic to peanuts are not necessarily allergic to tree nuts, but people who are allergic to one tree nut have a tendency to be allergic to other tree nuts.

What is tree nut allergy?

Tree nut allergy is a reaction which occurs after ingestion of tree nuts. The symptoms usually occur within minutes but occasionally up to 2 hours following the ingestion. These symptoms are due to IgE (allergy) antibodies against nut proteins. In a recent study of Australian nut allergic children, allergy to peanut was the most common (83%), followed by cashew (13%) and other nuts (4%) (almond and pecan, hazelnut and walnut). Nut allergy commonly presents around 2-4 years of age. Allergic reactions to tree nuts often occur the first time the child is known to be exposed to the nut.

How common is tree nut allergy?

Peanut allergy is the commonest nut allergy and affects about 1% of children. It is the commonest cause of serious food allergic reactions. In a Western community about 1 in 500 children (0.2%) react to tree nuts. It seems that allergy to some tree nuts, eg cashew nut, is becoming more common. Tree nut allergy is likely to occur in individuals with other allergic diseases (asthma, atopic dermatitis, and other food allergies).

What are the symptoms of tree nut allergy?

Reactions can range from mild to severe. Mild reactions consist of hives around the mouth where the nuts have touched the skin or more generalised hives on other parts of the body. Another common symptom is abdominal pain and vomiting which occurs soon after eating the tree nut. More severe reactions have coughing, wheezing, difficulty breathing or hoarseness of the voice due to an allergic reaction occurring in the airway. It is rare (but possible) for these symptoms to occur alone without hives and/or vomiting. It appears that reactions to cashew nut are more likely to be severe than reactions to peanut. When symptoms of an allergic reaction in the airway occur the reaction is called anaphylaxis. Approximately one quarter to one half of tree nut allergic children who develop symptoms on tree nut exposure have respiratory signs which indicate a more severe allergic reaction. In the most severe cases collapse and loss of consciousness can occur. Very rarely very sensitive individuals have died from the severe allergic reaction (anaphylaxis).

How is tree nut allergy diagnosed?

In most cases the clue to tree nut allergy is the start of symptoms soon after exposure to the nut. The presence of allergy IgE antibodies to nut can be confirmed by an allergy skin prick test or a blood test (called a RAST test). It is important to realise that not every child with a positive allergy test will develop symptoms on exposure to that nut. The interpretation of the test should be discussed with your doctor. If your child has a positive allergy test but has never eaten tree nuts your doctor will determine the chance of developing a reaction if there is exposure to tree nuts.

Fact Sheet

Tree nut allergy

The allergy tests are not very helpful in predicting whether a reaction to nut will be mild or severe.

types and not just the ones to which they have reacted.

Can tree nuts cross-react with peanuts?

There is a low rate of cross reaction between peanuts and tree nuts. The allergens of tree nuts are more likely to cross react with other tree nuts than with peanuts. As an example most children with allergic reactions to cashew nuts do not react to peanuts as well. Children with cashew nut allergy may be more likely to react to pistachio nut which comes from a closely related plant family.

How do I avoid exposing my child to tree nuts?

The most important step in managing tree nut allergy is avoidance of exposure to the nuts which cause allergic reactions. One study showed that a quarter of nut-allergic children were unable to correctly identify the type of nut to which they were allergic. Avoidance of nuts can be difficult as they can be hidden in many foods. For example cashew nuts may be hidden in a wide variety of commonly ingested foods, such as Asian meals, sweets, ice cream, cakes, chocolates and commercially prepared pesto sauce. It is important to use common sense and read food labels carefully. Note that beans, legumes (pulses), nutmeg and coconuts are not closely related to nuts and are usually allowed in the diet unless the child has reacted to one of these before.

Will my child react to all types of nuts?

Your child is most unlikely to react to all types of nuts; however, allergic reactions to more than one nut are common. Most (>80%) school age children with a nut allergy will react to at least one other type of nut on allergy testing and 40-50% will have a reaction to more than one type of nut if exposed. Other children may react to only one type of nut; however it is frequently simpler to avoid all types of nuts. Sensitisation to tree nuts may increase with increasing age. For this reason your doctor may repeat the allergy tests to a range of nuts from time to time. In general children who have a nut allergy should avoid all nut

Where possible **check labels** particularly with the following foods that could contain tree nut.

Check the ingredient list of these foods for peanuts and other nuts:

Baked goods
Biscuits, baklava

Croissants
Dried fruit mixes

Ice creams
Pastries
Pesto
Pasta sauces
Salads/ salad dressings
Sauces

Breads and buns
Breakfast cereals eg
muesli
Cakes
Chocolates

Flavourings (natural)
Fried food (peanut oil)

Snack foods
Soups

Chocolate spreads

Gravy
Health bars, eg muesli
bars, energy bars, nut
bars

Takeaway/restaurant
foods

Confectionery ie lollies,
fudge

Hydrolysed/textured
vegetable protein (HVP &
TVP)

Turkish delight

Crackers

Vegetarian foods



Fact Sheet

Tree nut allergy



What about foods with a label that says "may contain traces of nuts"?

Many foods carry a warning on the label "may contain traces of nuts". This usually indicates that the food is made in a facility that also makes a food containing tree nuts or peanuts. However unless there is a mistake the food does not usually contain any nut. Some foods are more likely to be contaminated with nuts than others, especially if they are made on the same machinery as foods containing nuts eg chocolate, icecream and muesli bars. Discuss what to do about foods labelled "may contain traces of nuts" with your doctor.

What is an Epipen?

Epipen is an emergency device which injects a dose of adrenaline into the muscle. It is used to treat severe reactions to nuts (anaphylaxis). The drug adrenaline reverses the severe allergic reaction and can be lifesaving.

Should my child carry an Epipen?

All allergists agree that children who have had a serious reaction to nuts with involvement of the breathing passages should have an Epipen. The need for other children to have an Epipen depends on a number of factors which should be discussed with your doctor. **If you have an Epipen it is very important that you understand how and when to use it and that you have a written anaphylaxis action plan provided by your doctor.**

Can my child grow out of tree nut allergy?

Only about 10% of subjects will outgrow their tree nut allergy. Most preschool children who have tree nut allergy will continue to be allergic during the primary

school and teenage years. Those children who have had more severe allergic reactions with breathing problems are probably less likely to outgrow their allergy than children with milder reactions. Your doctor can sometimes determine whether the nut allergy is still present by performing allergy tests and by giving your child a supervised challenge in hospital to that nut. Occasionally the nut allergy may come back in people who have outgrown their allergy.

Is my child likely to have a severe reaction from casual contact with tree nuts on benches, other children's hands or by smelling tree nuts?

No. There is no research to confirm that severe reactions from can occur by touching or smelling tree nuts without nut ingestion. Some people can develop localised symptoms e.g. hives where the nut touches the skin and this has the same meaning as a positive skin test. A small proportion of nut allergic people are sensitive to such small amounts of nuts that they may develop symptoms from eating trace amounts of nuts, and perhaps this is why some people have been thought to react to 'touching' nuts. Some very sensitive people may develop wheezing if they inhale nut vapours formed during cooking, however this is extremely rare.

Can I prevent nut allergy in my future children?

There are no methods which can guarantee a child will not develop nut allergy. There is no evidence that avoiding nuts in pregnancy or in the diet of lactating mothers prevents nut allergy in their babies.

Fact Sheet

Tree nut allergy



Where can I find more information on the Internet?

- The CHW diet sheets available on www.chw.edu.au/parents/factsheets/
- The Australian Society of Clinical Immunology and Allergy (ASCI) website contains useful information on food allergy written by Australian specialists (www.allergy.org.au).
- The patient support group Anaphylaxis Australia offers valuable updates and tips for dealing with food allergies (www.allergyfacts.org.au).

Written by the Department of Allergy and Immunology The Children's Hospital at Westmead.

This fact sheet is for education purposes only.
Please consult with your doctor or other health professional to make sure this information is right for your child.

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the
children's
hospital at Westmead

www.chw.edu.au

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CHILDREN'S
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