Tree nut allergy and tree nut free diet

What are tree nuts?
The term tree nut is used to mean nuts including:
- Almond,
- Brazil,
- Cashew,
- Chestnut,
- Hazelnut,
- Hickory,
- Macadamia,
- Pecan
- Pistachio
- Walnut

These are different from peanuts (known as groundnuts) because tree nuts come from a different plant family. People who are allergic to peanuts are not always allergic to tree nuts. People who are allergic to one tree nut are often allergic to other tree nuts. (Pine nuts are seeds. Coconuts are not tree nuts)

What is tree nut allergy?
Tree nut allergy is a reaction that happens soon after eating tree nuts. The symptoms can be within minutes but can be up to 2 hours after eating the nut. These symptoms are due to your child having 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). An allergic reaction to tree nuts often happens the first time a child is known to eat the nut, often around 2-4 years of age.

How common is tree nut allergy?
In Western communities, about 1 in 500 children (0.2%) have a reaction to tree nuts by the age of 5 years. Allergy to some tree nuts, e.g. cashew nut, is becoming more common. Children are more likely to have a tree nut allergy if they have 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 to moderate reactions include:
- hives or welts
- swelling of the lips/face/eyes
- tingling of the mouth
- abdominal pain or vomiting.

Severe reactions (anaphylaxis) include:
- difficulty/noisy breathing
- swelling of the tongue
- swelling or tightness in the throat
- difficulty talking and or hoarse voice
- wheeze or persistent cough
- persistent dizziness or collapse, pale and floppy (in young children).

Sometimes symptoms of a severe reaction happen without symptoms of a milder reaction first. It is rare (but possible) for these severe symptoms to occur alone without hives and/or vomiting.
Reactions to cashew nut are likely to be severe. Very rarely very sensitive individuals have died from the severe allergic reaction (anaphylaxis).

**How is tree nut allergy diagnosed?**

Often the first sign of a tree nut allergy is symptoms soon after eating the nut. You can have your child tested for the presence of allergy IgE antibodies to a nut with an allergy skin prick test or a blood test (called a serum specific IgE test). Not every child with a positive allergy test will develop symptoms after eating that nut. Discuss your child’s test results with your doctor.

If your child has a positive allergy test, but has never eaten tree nuts, your doctor will discuss the chance of developing a reaction. The allergy tests are not very helpful in telling whether a reaction to nut will be mild or severe.

**Can my child also react to peanuts?**

There is a low rate of children being allergic to both peanuts and tree nuts. Children with a nut allergy are more likely to be allergic to other tree nuts than to peanuts. E.g., a child with a cashew nut allergy is more likely to react to a pistachio nut (tree nut) than a peanut.

**Will my child react to all types of nuts?**

It is unlikely that your child will 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 have a positive allergy test to at least one other type of nut. Some children may react to only one type of nut; however, it may be easier to avoid all types of nuts, as foods that contain tree nuts often contain more than one type of nut so it is not always possible to be sure which tree nuts are present in a food. Reactions to tree nuts may increase with age. For this reason your doctor may repeat the allergy tests to a range of nuts from time to time. Talk to your doctor about which nuts your child should not eat.

**Can my child grow out of tree nut allergy?**

About 10% of children will grow out of their tree nut allergy. Most preschool children who have tree nut allergy will still be allergic during their primary school and teenage years. Children who have more severe allergic reactions are less likely to grow out of their allergy. Your child can have an allergy test or supervised challenge in hospital to see if the nut allergy is still present. Sometimes the nut allergy can 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, severe reactions have not occurred after 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 number of nut allergic people are sensitive to such small amounts of nuts that they may develop symptoms from eating trace amounts of nuts. Some very sensitive people may develop wheezing if they inhale nut vapours (formed during cooking) but this is rare.

**What is an Epipen?**

An Epipen also called an autoinjector, is an emergency device that injects a dose of adrenaline into the muscle in the leg. They are 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 adrenaline autoinjector?**

All allergists agree that children who have had a serious reaction involving their breathing should have an adrenaline autoinjector. The need for other children to have an adrenaline autoinjector depends on many factors which you can discuss with your doctor.

If you have an adrenaline autoinjector it is very important that you understand how and when to use it and that you have a written anaphylaxis action plan from your doctor.

**Can I prevent nut allergy in my future children?**

There is no evidence that avoiding nuts in pregnancy or in the diet while breastfeeding prevents nut allergy in babies. Current recommendations include no smoking for either parent, introduction of solids between 4-6months (unless your child is food allergic) and breastfeeding for at least 6 months if possible.

**How do I avoid exposing my child to tree nuts?**

Avoiding nuts can be difficult as they are hidden in many foods, especially the following:

- Baked goods – biscuits, cakes, pastries
- Chocolates, ice cream and confectionery/lollies (e.g. Turkish delight)
- Breakfast cereals, muesli, dried fruit mix
- Pesto, pasta sauces, salad dressings
- Asian food, stir fry, vegetarian dishes
It is important to:

- know which nuts to avoid
- learn how to read food labels carefully - always check the food list on the label even if it says "nut-free" or is a product you have used before. The following is an example of a food label:

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Ingredients: Wheat flour, vegetable oil, sugar, cornflour (wheat), Hazelnuts, salt, milk solids, sesame, raising agents (E330, E 341, E500), yeast, emulsifier (E322. Soy), egg.
Contains wheat, hazelnuts, milk, sesame, soy and egg
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- understand the different words used that can be used to describe tree nuts e.g. almond meal is ground almond nuts
- avoid foods that don’t have a food label or that you haven’t made yourself, as there is no guarantee that the food doesn’t contain nuts
- plan eating out and travelling and talk to staff serving you about your child’s allergy
- avoid food that is served using spoons/tongs that are also used to serve food containing nuts (e.g. some takeaway meals)
- prepare safe meals at home for your child to take out
- change favourite recipes at home by replacing the nuts with rice bubbles or coconut
- teach your child about their 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 means that the food could have been exposed to tree nuts or peanuts anywhere from the field in which it grew to the factory where it was produced. However unless there is a mistake the food does not usually contain any nut as an ingredient. 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 e.g. chocolate, ice-cream and muesli bars. Discuss what to do about foods labelled "may contain traces of nuts" with your doctor.

This sheet is a guide to avoiding nuts in your child’s diet. Nuts are found in a variety of foods, often in foods we don’t think about such as chocolate, cereal bars/muesli bars, breakfast cereals and bakery items. Your doctor may advise you to avoid a single nut, all types of nuts or a combination of nuts.

Where can I find more information on the Internet

- The Australian Society of Clinical Immunology and Allergy (ASCIA) website contains useful information on food allergy written by Australian specialists: [www.allergy.org.au](http://www.allergy.org.au).
- The patient support group Anaphylaxis Australia offers valuable updates and tips for dealing with food allergies: [www.allergyfacts.org.au](http://www.allergyfacts.org.au).
- The patient support group Anaphylaxis Australia offers valuable updates and tips for dealing with food allergies ([www.allergy.org.au](http://www.allergy.org.au)).
- Food Standards Australia and New Zealand for information on food labelling: [www.foodstandards.gov.au](http://www.foodstandards.gov.au)

Note:

- Beans (legumes) nutmeg and coconuts are not closely related to tree nuts and are usually allowed in the diet unless the child has reacted to one of these before.
- Highly refined nut oils are unlikely to cause a reaction in those with a nut allergy. Avoid nut oil which is cold pressed, expressed or expelled.