



Eating Safely when you have **Food Allergies**



Te Pou Oranga Kai O Aotearoa



This booklet was produced with input from Allergy New Zealand

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Every effort has been made to ensure the information in this guide is accurate. NZFSA does not accept any responsibility or liability whatsoever for any error of fact, omission, interpretation or opinion that may be present, however it may have occurred. This guide does not replace or substitute for advice given by a medical professional. If you suspect that you have a food allergy, you should see your doctor.

Food Allergy

Food allergy is a reaction to a food protein that is usually immediate – from a few seconds to two hours after a food is eaten. In some types of food allergy, however, reactions may be delayed. People with food allergies develop symptoms by eating foods that, for the vast majority of the population, are part of a healthy diet. Even small amounts of the offending food can cause serious reactions in susceptible individuals. Food allergy is relatively common in children, but many children grow out of their allergies by adulthood. Food allergy affects up to 4% of children and up to 2% of adults. The tendency to allergy usually runs in families. The only way for allergic individuals to manage a food allergy is to avoid eating the food that causes it.

Symptoms of food allergy

The symptoms of food allergy range from mild discomfort to severe or life-threatening reactions which require immediate medical attention. Symptoms include:

- *Skin*: hives, eczema, swelling, itching
- *Respiratory*: sneezing, asthma, difficulty breathing, cough
- *Gastrointestinal*: swelling and itching of the lips and mouth, vomiting, reflux, colic, diarrhoea, cramps, constipation
- *Circulation*: low blood pressure, dizziness, anaphylactic shock.

While around 160 foods have been reported as causing food allergies, there are eight which are responsible for 90% of allergic reactions to foods. These are: egg, milk, peanut, soy, fish, seafood, wheat, and tree nuts.

A food that causes an allergy is called an allergen, and will affect a food-allergic person every time they eat it. In some instances only a tiny trace can trigger a reaction.

How do I know if I have an allergy?

There are tests that can be done to help identify a food allergy, along with an account of your reaction history and a physical examination by a doctor or specialist.

The skin prick test involves small drops of the potential allergens being placed on your arm (or back for a small child).

A tiny prick is then made in the skin so the allergens come into contact with tissue.

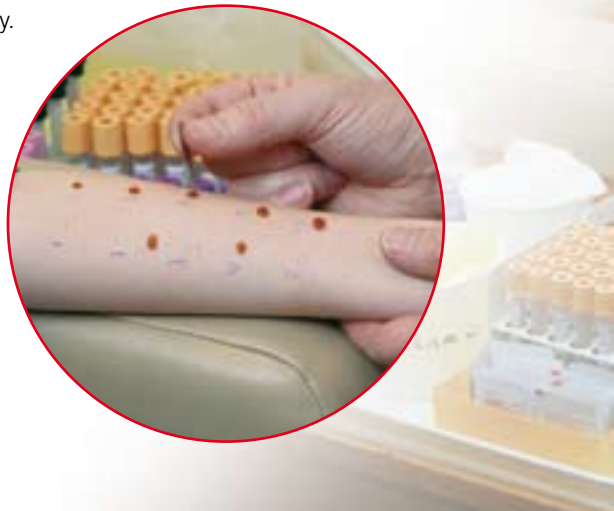
A red and raised area will develop around the drop you are allergic to. Skin prick tests do not work if you are taking anti-histamines or using steroid creams so you will need to stop these several days before the test. Skin prick tests are not suitable if you have severe eczema, severe peanut allergy (if suspected) or for distressed infants.

Another option is the RAST blood test, which can check for reaction to the eight major food allergens. You can have this done while using anti-histamines and steroid creams. There is also no risk of severe allergic reaction as the blood is taken away and analysed. Note though that a positive test result does not always mean an allergy.

If you, or your child, are diagnosed with a food allergy you need to avoid all sources of that food. Research suggests children have a better chance of growing out of a food allergy if they completely avoid the food. To find out whether you are still allergic or have grown out of an allergy, you or your child can be re-tested.

In cases where the allergy is severe, you might need to wear a Medic Alert bracelet and carry special medication such as antihistamines or an auto-injector such as an Epi-Pen®. You should discuss this with your doctor.

Egg and milk allergies are the most common food allergies among infants but are often outgrown. Shellfish allergy is more common among adults than children, while peanut allergy is equally common among children



and adults. Sections later in this guide have advice on how you can avoid many common food allergens. Remember, when eliminating food groups from your diet, the supervision of a dietitian is highly recommended. The Ministry of Health has a range of publications about nutrition and diet, and these should be available from your doctor or local Public Health Unit (look in the White Pages under 'Public Health').





Cow's milk and cow's milk products

There are many alternatives to cow's milk for those who are allergic, however many processed products – such as bread and baked products, confectionary, pickles and manufactured meat products – contain milk derivatives.

What to avoid:

- milk, yoghurt, cheese, butter, cream, buttermilk
- butter oil, butter fat, ghee
- calcium caseinate, casein, caseinate, sodium caseinate
- demineralised whey powder
- lactalbumin, lactoglobulin, lactose (milk sugar)
- rennet
- milk powder, milk protein, milk solids, non-fat milk, non-fat milk solids
- skim milk, skim milk powder
- sweet whey powder, whey, whey protein concentrate, whey solids.

Watch points:

- For adults, replace milk with a calcium-enriched alternative such as soy or rice milk. (Note that some do not contain vitamin B12 which may be a problem for vegans.)
- Rice milk is not suitable as a sole milk replacement for children under five years old as it is low in protein and fat and contains fewer B vitamins.
- For adults, oat and almond milk may also be used although these may not be calcium-enriched.
- Goat and sheep milk is likely to cause allergic reactions in cow's milk allergic people and should be avoided.
- For infants, breast milk is the best source of nutrition. Once weaned from breast milk, infants with milk allergy should use a low-allergen formula under the supervision of a paediatrician.
- Coffee whitener may contain dairy products, check that it is non-dairy whitener before use.

Soybeans and soy products

Soy allergy might be increasing as more soy is used in processed foods such as bread and baked products, cereals, confectionary and Asian foods.

What to avoid:

- soy protein, tofu, tempeh, soy beans, edamame, bean curd
- soy sauce, black bean sauce, miso soup
- soy or soya oil, salad or unspecified cooking oil
- soy flour
- soy lecithin or unspecified lecithin
- hydrolysed or textured vegetable protein (HVP and TVP)
- soy milk
- vegetable gum, vegetable starch.

Watch points:

- Many breads contain soy flour.
- Asian foods in particular are likely to contain soy.



Eggs

Egg allergy can be severe and often occurs the first or second time egg is presented to infants. Egg is also often found in processed foods such as baked products, noodles, soups and sauces.

What to avoid:

- egg white, egg yolk
- dried egg, powdered egg
- egg lecithin
- meringue
- mayonnaise
- custard powder
- albumin, ovalbumin, ovomucoid, globulin
- avidin, livetin, lysozyme.

Watch points:

- Watch for products with glazes that may not be listed in ingredients.
- Egg substitutes that are safe to use are gelatine, golden syrup, baking powder+vinegar, yeast, apricot jam, water+oil+baking powder, Orgran® or similar egg replacer, puree apple, cottage cheese.
- Avoid all types of egg – chicken, duck, goose etc.



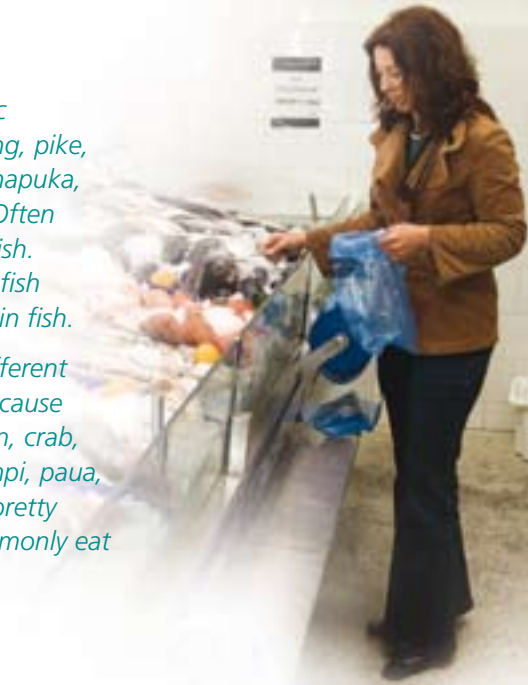
Fish and seafood

The fish commonly known to cause allergic reactions include cod, salmon, trout, herring, pike, hake, mackerel, haddock, shark, terakihi, hapuka, snapper, sole, flounder, halibut and tuna. Often the allergy may only be to one species of fish. Occasionally the allergy may not be to the fish itself but to a parasite that can be present in fish.

Seafood is a broad term covering many different species, so what foods actually commonly cause allergies? Most common are shrimp, prawn, crab, crayfish, lobster, oyster, clam, scallop, scampi, paua, octopus, pipi, tuatua, mussel and squid – pretty much everything you might expect to commonly eat from the ocean. If you are likely to eat snail, despite not being seafood, it also comes into this category.

Watch points

- Check for fish sauce (particularly in Asian dishes) and anchovies.
- Cross-contamination is probably the main concern – even small amounts of fish could trigger a serious reaction. Ensure pans, utensils and crockery are well washed after use. Chopping boards can also harbour fish remnants so keep a separate board just for fish. This can be a source of cross-contamination in restaurants as well, as can deep fryers.
- Even though surimi may not contain crab, it does contain fish.
- Be aware of cross-contamination on in-store fish counters and in processing plants.



Peanuts

Peanuts are a common part of our diet – particularly in the popular peanut butter spread. Unfortunately for those who have a peanut allergy effects can be very serious and even a tiny amount may cause a severe reaction.



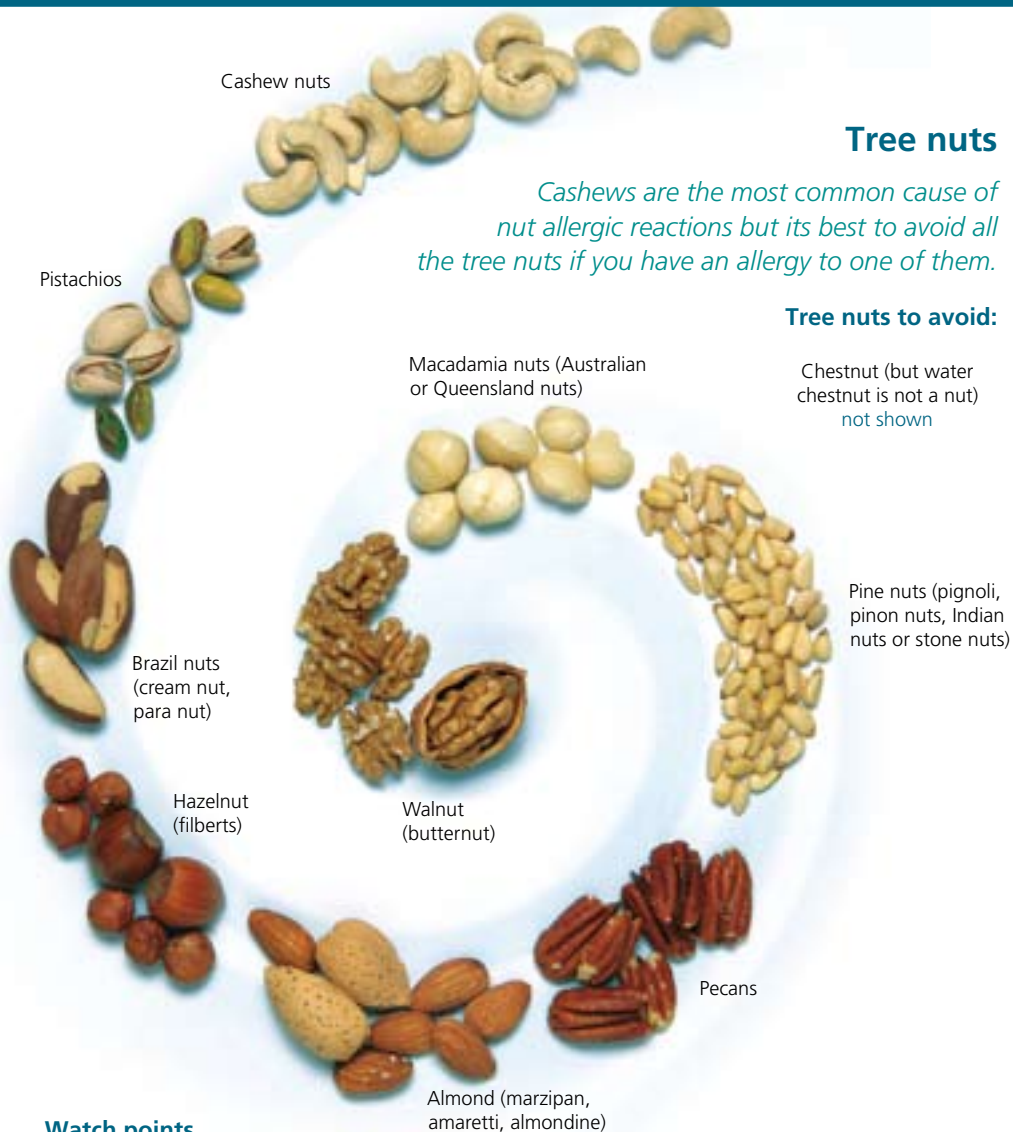
What to avoid

- groundnuts
- beer nuts
- monkey nuts
- peanut oil, arachis oil
- satay
- peanut flour
- mixed nuts.

Watch points

- Peanuts are a popular in-flight snack internationally – check with your airline before flying as airborne peanut particles recycled in the air conditioning system could cause a reaction.

- Any nut oils used in cooking or cosmetics should be avoided.
- Those with peanut allergies may be more likely to have reactions to other nuts (even though peanuts are technically not a nut – they are a legume like peas). If your child is allergic to peanuts, delay giving them other nuts until at least three years old and include these in allergy tests. This includes Nutella® products.
- Peanut butter presents the greatest hazard because it sticks to knives, benches, chopping boards, kitchen sponges and barbeques. Knives contaminate jams and spreads. Sticky fingers transfer it to door handles, toys, taps and school desks. And well-meaning relatives leave peanut butter kisses from lips, beards or moustaches.
- Cross-contamination is also a common problem with peanuts themselves – serving spoons end up in every dish. Watch for pizza cutters, salad spoons and where the nuts are going in ice cream shops. Loose nuts in bulk bins can end up in other containers. Check marinades and fruit breads in particular.



Tree nuts

Cashews are the most common cause of nut allergic reactions but its best to avoid all the tree nuts if you have an allergy to one of them.

Tree nuts to avoid:

Chestnut (but water chestnut is not a nut)
not shown

Watch points

- Nut pastes such as Nutella® should be avoided.
- Praline and nougat contain nuts.
- Coconut is also a nut and hence concern has been expressed that this could also trigger allergy. In highly allergic children allergy to coconut is a possibility, but has not been observed to be a problem.
- Sesame seeds could also pose a concern, and allergy checks for these should be done. Sesame oil is in tahini and is an ingredient in hummus.
- Watch for rogue nuts in bulk bins and avoid Christmas nut mixtures.



Wheat

A wheat allergy is an abnormal immune reaction to one of the thirty-five allergenic proteins in wheat – albumins, globulins, gliadins and glutenins. Often children grow out of a wheat allergy by age two.

What to avoid:

- wheat, wheat flour, wheat bran, breadcrumbs, wheat germ, wheat starch, semolina, couscous, bulgur, spelt, kamut, durum, dinkel and triticale
- bread, pasta, most breakfast cereals, baked goods such as cakes, biscuits, scones and muffins made with wheat flour
- hidden sources of wheat in sauces (most soy sauce), soups, dressings
- wheatgrass and wheatgerm
- check that corn flour and baking powder do not contain wheat starch
- spelt is sometimes promoted as being wheat-free – it is an ancient form of wheat and may still cause a reaction.

Watch points:

- Alternatives to wheat that you can eat include potato, oats, rye, rice, corn, sago/tapioca, buckwheat, legumes, millet and arrowroot.
- Fibre may be low in a wheat-free diet, as many alternative flours are lower in fibre than wholemeal wheat varieties. Soy and buckwheat flours are higher in fibre than other alternatives. Increasing fruit and vegetables, using legumes such as beans and chickpeas, and including some whole grains such as millet, amaranth and buckwheat will ensure a good fibre intake. Add barley to soups, and use brown rice as it is higher in fibre. A good high fibre wheat-free breakfast is homemade muesli with rolled oats, seeds, rice bran and fruit.

Other allergens

There are other allergens that affect a small number of New Zealanders. Some of these are:

- seeds (sesame, sunflower, poppy)
- kiwifruit
- corn/maize
- lupin (lupin flour)
- mango
- legumes (chickpeas, beans, peas, lentils)
- spices (including mustard).

Sometimes environmental or contact allergies can have cross-reactions with food. This is because the allergy-causing protein is similar to a protein in the food. One example is when people with a latex allergy sometimes react to banana, kiwifruit, chestnut and avocado. The protein in latex that causes the allergy is a natural protection the rubber plant produces to protect against insects. Banana, kiwifruit, avocado and chestnut plants also produce this or a similar protective protein. Another example is people who are allergic to birch pollen may react to several different kinds of fruit, again because of similarities in proteins. Usually this causes reactions in the mouth and lips only (called oral allergy syndrome). However, you do not need to avoid these foods unless you know you react to them.



How do I find allergens on a food label?

Allergens that must be declared on food labels in New Zealand and Australia are:

- cereals containing gluten and their products (wheat, rye, barley, oats)
- crustacea and crustacea products (crab, prawn, crayfish)
- egg and egg products
- fish and fish products (including shellfish)
- milk and milk products
- peanut and soybean (including their products)
- added sulphite (above a certain level – there is more on this later in this guide)
- tree nuts and sesame seeds and their products.

There are three ways you might see allergens listed on labels:

in brackets	in bold	in a separate declaration
wheat flour, sugar, margarine (contains milk), salt, flavour (contains wheat starch)	wheat flour, sugar, margarine (contains milk), salt, flavour (contains wheat starch).	wheat flour, sugar, margarine (contains milk), salt, flavour (contains wheat starch). Contains wheat and milk.

Food labels should be checked each time before purchase or use as manufacturers do change their ingredients and processing aids from time to time.

You may have seen some labels with the statement “may contain traces of X” or “manufactured in a plant that also processes X” or even “manufactured on the same equipment as X”. You’re advised not to consume products with ‘may contain’ or similar precautionary statements if you have an allergy to that food. Manufacturers use this statement to cover a variety of situations. As companies continue to improve allergen management, these statements will increasingly represent more accurate risk levels. For individual advice please consult your health professional.





What should I do if I find an undeclared allergen?

If you suspect a food product containing an undeclared allergen to be the cause of a reaction, or you suspect a food item is not properly labelled, you need to contact your local Health Protection Officer at your Public Health Service (look in the White Pages under 'Public Health').

The same process applies if you believe you have been given the wrong information about food in a restaurant, which then led to a reaction.

Are food additives allergens?

People commonly ask whether food additives contain allergens. Because very small amounts of additives are used in foods, the amount of allergens in these are likely to be even smaller. All food additives will be listed on the food label, so you can avoid these if you are very sensitive. Check with the manufacturer if you are unsure of the source of an additive. Additives containing possible allergens are:

- E06 (tocopherol) – soy
- 322 (lecithin) – soy/egg
- Flavour – will list the allergen if it is present
- Wine – additives in the refining process of wine include milk, egg and fish. Evidence suggests there is only a very small risk that these are present in the final product.

Where can I get information about undeclared allergens?

Foods that are found to contain significant unlabelled allergens are recalled.

Recall notices are placed on the NZFSA website (nzfsa.govt.nz – you can also sign up for email alerts) as well as printed in major newspapers and broadcast on radio. Allergy New Zealand has a product alerts email list (allergy.org.nz) as does the Consumers' Institute (consumer.org.nz).



How do I plan a nutritionally balanced allergen-free diet?

In most cases it is still possible to have a nutritious diet while avoiding the foods you are allergic to. If you are avoiding whole food groups it is essential you consult a dietitian to ensure your diet is adequate. This is especially important for young children who need good nutrition for growth.

Calcium: Getting your calcium requirement may be tricky if you are avoiding milk and milk products. Replacing cow's milk with soy or rice milk (rice milk is not suitable for children under the age of five) that has calcium added is the easiest way to ensure your intake does not suffer. Check that the brand you buy is fortified – it will say 'calcium' on the nutrition panel on the packet. Adults need 1000-1300mg per day and children 700-1300mg depending on age. One glass of fortified soy or rice milk usually provides around 250mg. If your child will not drink any milk look for alternatives, although the choices become more limited. Foods high in calcium include broccoli, tinned fish (with bones), oysters, soybeans and parsley.



Foods with medium calcium content include tofu, baked beans, mussels, dates, almonds and bread. Foods sometimes fortified with calcium include orange juice and breakfast cereals. If you or your child have multiple food allergies it is likely that a calcium supplement will be necessary to meet requirements. Choose a supplement that does not contain calcium from shellfish sources if you have a seafood allergy.

Selenium: If you have multiple allergies your diet may be low in selenium. This is because the main sources for New Zealanders include eggs, wheat, seafood and dairy products. Other good lower allergy sources include legumes (chickpeas, beans, lentils) and meat (especially liver and kidney).

Omega-3 fats: Fish is a good source of omega-3 fats, but other sources include canola oil, walnuts, linseed (also known as flaxseed), spinach and purslane.

Iron: In children with multiple food allergies that may include beef and lamb, iron may be an issue. For children with eczema, iron may be lost through shedding skin. Good sources of iron include foods with added iron (Marmite®, Vegemite®, breakfast cereals, Milo®), beans (baked beans), tofu, dried apricots, raisins, nuts, whole grains, chickpeas, lentils and green leafy vegetables. Vitamin C improves the absorption of iron from plant foods so a glass of orange juice at a main meal is beneficial.

What about eating out or buying food?

Eating a meal in a restaurant or café can be a harrowing experience if you have a food allergy, but here are some tips to make it easier and safer:

- Phone the restaurant in advance. Explain you have a food allergy and ask if they can cater for this. If so, go through the menu with them and work out something you could safely eat. If they are doubtful or unhelpful, try another restaurant.
- When you arrive, talk to the wait staff and explain you have a serious allergy. If you have phoned ahead, say that you have already spoken with the chef and ask them to tell the chef you are here. If you have not phoned ahead, ask to speak with the chef or maitre d'.



- Read menus carefully and clarify what is in foods if you are unsure.
- Especially check dressings, sauces and desserts.
- Double check for garnishes or extras when the meal arrives.
- Take medication with you in case of a reaction.
- Some restaurants may allow you to take in safe food for a child or you may be able to take safe bread to have before the meal.
- Fried food may pose a particular risk as fryers often end up with bits from all sorts of foods including egg, wheat, fish, seafood and milk.
- Check food displays in supermarkets and delicatessens for possible cross-contamination.
- Ask staff whether food is prepared with clean equipment and utensils separate to food containing the allergen, eg, chicken kebab away from peanut satay chicken.



Can I minimise the risk of food allergies?

If you are pregnant and your family history indicates that your child is at high risk of developing an allergy (both parents with allergy or one parent and a sibling with allergy) there may be some things you can do to minimise the risk of your infant having a severe allergy. While you are pregnant and breastfeeding it is suggested that you avoid peanuts and peanut butter. Breastfeeding may be protective and, if you can, delay the introduction of solids until the baby is six months old. Avoid introducing cow's milk, egg, and fish until age one, and peanuts, nuts and shellfish until age three.

Am I food intolerant?

Food intolerance covers all other food-related reactions, generally those that cannot be tested for. Food intolerance can affect anyone at any age and usually involves more than one food. Reactions can be delayed for several days and the reaction is usually dependent on the amount of food eaten. Symptoms of food intolerance include:

- *Skin*: hives, swelling, eczema
- *Respiratory*: asthma, sinusitis, nasal congestion
- *Gastrointestinal*: nausea, vomiting, diarrhoea, constipation, gas, abdominal pain
- *Other*: migraine, nerve pain, muscle pain, impairment of memory, depression

Food intolerance can be divided into several groups.

Enzyme deficiency: If an enzyme in your digestive system is missing or not functioning correctly it won't be able to help digest the food it is associated with. This will cause digestive-related symptoms such as diarrhoea, bloating, wind and abdominal pain. The most common enzyme deficiency is lactase (which digests the milk sugar lactose) causing lactose intolerance. Usually people can still tolerate small amounts of lactose-containing foods. Other enzyme deficiencies are rare, but fructose, maltose and sucrose intolerances do sometimes occur. See your GP or dietitian if you suspect lactose intolerance.



Allergy-like intolerances: There are some reactions to foods that commonly cause allergy, such as milk, wheat, egg, soy etc that are actually intolerances. These will not appear on allergy tests but can be tested for using atopy patch tests. This involves applying a paste of the suspected food to a patch of skin on the back and then monitoring for reactions over 48 hours. These tests are done only by a specialist. Intolerances to foods are most easily diagnosed by an elimination diet under the supervision of a dietitian.

Irritants: Some foods can be irritating to the digestive system, causing symptoms such as diarrhoea, wind, abdominal pain and bloating. Examples of irritants are caffeine, spices, garlic, onions, cabbage, dried fruit and sorbitol (found in sugar-free foods such as chewing gum).

Food chemical intolerance: There are two main classes of chemicals that occur naturally in foods – salicylates and amines. These can affect or cause asthma, pruritis, hives, eczema and migraines.

Food toxins: Some foods contain natural toxins that can increase under certain conditions. Other foods produce toxins as they spoil. Some people may be very sensitive to these toxins and so be more likely to experience adverse effects.

- Spoiled fish produces histamine which can produce allergy-like reactions.
- Green sprouting potatoes may cause stomach ache.
- Kumara and parsnip damaged by insect attack or injury may cause illness. Cut out the damaged area and peel before cooking. Don't eat it if it tastes bitter.
- Dried beans and chickpeas contain toxins. These need to be soaked and cooked thoroughly to remove them.
- Zucchini that tastes bitter or has a strong unpleasant smell may contain toxins from wild zucchini strains and should not be eaten.
- Cassava, taro leaves and bamboo shoots must be properly prepared and cooked before eating.



Spoiled fish



Green potatoes



Damaged kumara



Damaged parsnip



Raw beans



Uncooked cassava and bamboo shoots

Sulphites: The presence of sulphites are required to be stated on food labels, although sulphite reactions are not due to an allergy, but intolerance. Sulphites are preservatives used most commonly in wine and dried fruit. The additive numbers are 220 – 228 and will appear as one of these numbers in ingredients lists on food labels. Above a certain level, labels will say “contains added sulphites”.

Sulphites mainly cause asthma in sensitive people, but may also cause rashes, irritable bowel syndrome and headaches.



Where can I get more help?

Your Health Professional

- Your GP or local medical centre.
- Allergy specialist or paediatrician – this requires a referral from your GP unless you are in Auckland or Christchurch where there are private allergy specialists.
- Dietitian – a hospital dietitian requires a referral from your GP, or look for a private dietitian in the Yellow Pages or the 'Find a Dietitian' page at dietitians.org.nz.

Organisations and Websites

- Allergy New Zealand – allergy.org.nz or 0800 34 0800 – provides support and advice, regional support groups, *Allergy Today* magazine and resources such as books, videos and pamphlets.
- Manufactured Food Database – mfd.co.nz – collects ingredient information from manufacturers and provides lists of foods free from common allergens.
- New Zealand Food Safety Authority – nzfsa.govt.nz – information on food recalls, food labelling and general food safety.
- Ministry of Health – moh.govt.nz – provides information on nutrition and diet.
- Anaphylaxis Australia – allergyfacts.org.au – provides general advice about allergies.
- Food Allergy and Anaphylaxis Network America – foodallergy.org – provides general advice about allergies.





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