

# Living with allergy – cow's milk

An allergy to cow's milk involves the immune system and affects about 2 children in 100. Happily, about half the affected children will outgrow it by the age of one and by three years most children will have outgrown it. Only a small minority of children will be affected for life.

## Symptoms

As the immune system is affected, the symptoms are not just related to the stomach and could seem unconnected to food.

In early infancy, typical symptoms include tummy pain and vomiting. A small number may have rash or hives, difficulty breathing, wheeze or cough as well as eczema.

As the child gets older the symptoms include rash, hives and redness around the mouth which may spread all over the body, coughing, choking, gagging, trouble breathing, abdominal cramps, vomiting and diarrhoea.

Reactions can stop at any time or develop into a serious anaphylactic reaction.

## Treatment

Antihistamines are usually able to control symptoms. However, if you have experienced breathing difficulties or anaphylaxis has been diagnosed, you should always carry an adrenaline auto-injector.

## Very mild allergy

Small amounts of dairy products such as yoghurt or cheese can be eaten. Children with this level of allergy are likely to outgrow their allergy.

## Mild to moderate allergy

Small traces of milk products in cooked foods can be eaten.

Lactose or milk sugar is usually tolerated but *milk*, *cream*, *cheese*, *yoghurt* and *ice cream* should be avoided.

## Severe allergy

The only way to deal with a severe allergy is strict avoidance of all traces of milk and all dairy products. Emergency adrenaline should be kept nearby at all times.

## Touch and smell

Patients may experience some symptoms on smelling the food, for example the smell of *cheese on a pizza* can cause symptoms in some.

## Avoiding milk

While a full listing of ingredients, including milk, must be provided on foods, recipes change and it is always worth checking the labels.

Watch out for the terms '*natural flavouring*' and '*natural seasoning*' as these can sometimes contain milk proteins. While eating a food causes the most severe reaction, symptoms can also arise in some very sensitive people when the food is in contact with the skin or through a cut.

Severely affected children may be affected when, for example, they come into contact with an *ice cream* melted into the sand of a sand pit or dropped into a paddling pool.

Many *medicines* contain the milk sugar *lactose*, while this is not a protein that causes the allergy, it may be contaminated with traces of milk protein. A number of *dry powder asthma inhalers* contain lactose but the aerosol inhalers appear to be without lactose. There are no antihistamine tablets available in the UK that are free from lactose, however, the antihistamine syrups

offer an alternative presentation.

## Milk alternatives

The feed of choice is a fully hydrolysed infant formula. Only in rare cases will a child require an elemental formula. Goat's milk and sheep's milk are similar to cow's milk and should be avoided.

Soya milk may be an alternative although some children who are allergic to cow's milk may also be allergic to soya milk.

**Further information on allergy is available from [www.allergyai.com](http://www.allergyai.com)**

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# Living with allergy – soya / soy

Soya, which is the same as soy, is a protein made from soya beans.

Allergy to soya is relatively uncommon compared with others such as egg or milk. Fortunately children should have a good chance of growing out of an allergy to soya.

It is very common in diets and can be eaten in a number of forms: as *whole beans*, as *flour* (which may be processed into *textured vegetable protein*) or as an oil. It may also be an ingredient in processed foods as an emulsifier and stabiliser.

## Symptoms

Symptoms of soya allergy in children are usually mild and take the form of a rash. Much more rarely, severe symptoms might include breathing difficulties and anaphylaxis.

## Avoiding soya

Because soya is used so commonly, vigilance is needed when watching out for it in foods. It is, however, a legal requirement for soya to be declared on the ingredients.

Sometimes, when breastfeeding is not possible, soya milk is recommended as an alternative to cow's milk formula. However, it is not recommended for infants of six months or less, or that it is used without first getting advice from a dietitian.

A suitable alternative is extensively hydrolysed casein formula. These formulae are less likely to cause allergy and are tolerated by infants who are allergic to cow's milk.

## A link with cow's milk?

There are no common proteins in cow's milk and soya so it doesn't always follow that people who are allergic to one will be

allergic to the other. However, soya is potentially as allergic as cow's milk so soya would not normally be fed to a child who is susceptible to allergy or in a child younger than six months. As mentioned above, an extensively hydrolysed casein formula is a suitable alternative.

## Other, connected allergies

The soya bean belongs to a family of plants known as legumes. This is the same plant family as peas and lentils so children who are allergic to soya are often allergic to *peas* and *lentils* as well as *peanuts*.

When a patient is diagnosed with an allergy to soya, it may be worthwhile for other family members to be tested for this allergy.

## Going shopping

Soya flour is widely used in bakeries and it is an ingredient in many breads, cakes and biscuits. As fresh bread does not carry a list of ingredients it may be advisable to go for packaged bread and to check the label.

Some infant foods contain soya flour. *Hydrolysed vegetable protein* and *textured vegetable protein* can both be derived from soya.

*Lecithin* is an ingredient normally made from unrefined soya oil. Although the risk of a severe reaction to soya lecithin is small, it is best avoided.

*Refined soya oil* should be safe for the vast majority of people with soya allergy. It can be found in many foods including salad dressings and margarine. Unrefined soya oil carries a higher risk but is rarely used.

*Soya sauce* also known as soy sauce is commonly used in Far Eastern recipes as well as a flavouring in soups, gravies and sauces – **PLS advise, is it a problem?**

*Tofu* is another name for soya bean curd is often used as a protein source for vegetarians or people cutting down on meat. It is used in stir fries and soups in the Far East.

*Medicines* for example, asthma inhalers contain lecithin and it's always worth asking the pharmacist if a medicine contains soya.

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# Living with allergy – fish / shellfish

Allergies to fish and shellfish are quite common and different to one another – people who are allergic to shellfish may be able to eat fish and vice versa. However, there is a risk of cross contamination in restaurants, markets and on fish counters.

For people who are allergic to fish, it is unusual to be allergic to all types of fish. This is also the case with shellfish, however, the risk of cross contamination should be taken into account.

## Types of shellfish

Biologically, shellfish are different to fish and can be divided into four groups.

**Crustaceans:** (includes crab, lobster, crayfish, shrimp and prawn)

**Molluscs, bivalves:** (includes mussels, oysters, scallops and clams)

**Molluscs, gastropods:** (includes limpets, periwinkles and snails)

**Molluscs, cephalopods:** (includes squid, cuttlefish and octopus)

People who react to a shellfish in one of these groups are likely to react to others in the same group. So, for example, if you are allergic to squid, then you should avoid cuttlefish and octopus. Testing may be able to give you the exact answer but if in doubt it may be best to avoid all shellfish.

## Eating out and shopping

Start by letting the restaurant staff know that you are allergic to fish or shellfish. Ask what the food has between fried in and whether the oil has been used for anything else. You may also need to ask about the ingredients in the *stocks* and *soups* as fish and shellfish may be used as ingredients.

If your allergy is very severe, ideally your companions should avoid eating fish or shellfish as there is a small risk of a reaction from breathing in the cooked food.

*Oriental foods* often contain many different kinds of fish in one dish and the chopped pieces may be difficult to spot.

*Surimi*, a processed seafood is usually made from whitefish but may contain shellfish extract, can be present in processed foods, for example, *pizza toppings*.

*Anchovies* are normally found in *Caesar salad* and *Caesar salad dressing*. They may also be found in *Worcestershire sauce*, *Patum Peperium (Gentlemen's relish)* and *Caponata* a Sicilian relish.

Fish sauce can include shellfish, especially in eastern dishes. Watch out for the terms: *nuoc*, *mam* and *nam pia*.

Check the ingredients lists on all food, especially *oriental sauces*, *pastes*, *stock*, *soups* and *prepared meals*. While labels should feature a full list of ingredients for fish and shellfish, they do not need to state that the food may have been contaminated or that they contain molluscs. If in doubt ask the catering or shop staff.

## Iodine

Sometimes, people with a shellfish allergy are told to avoid iodine, an element present in shellfish, seaweed and cleaning products. While it is possible to be allergic to iodine, this allergy is unrelated to the shellfish allergy which is caused by a muscle in the shellfish.

## Supplements and toiletries

Although the allergen is the flesh, because of contamination, it can be a good idea to also avoid the fish or shellfish.

*Glucosamine*, used in treating arthritis, is derived from the skeletons of shellfish and is unsuitable for people with a shellfish allergy. An alternative to glucosamine is chondroitin, a shellfish-free alternative.

*Chitin*, used in fat absorbers, is a product made from shellfish shells and should also be avoided. Watch out too for some *moisturisers* which may contain chitin.

While some *calcium supplements* contain oyster shells, it is uncertain whether this poses a risk of allergy although it is likely to be small.

## It's not always allergy

Sometimes a reaction can be caused when the fish contains histamine which can be present in spoiled fish, especially dark-fleshed fish such as tuna and mackerel. The histamine is not destroyed by cooking and the fish would taste normal. Soon after eating the fish the affected person develops flushing, wheeze, abdominal cramps and/or diarrhoea. It is called scombroid poisoning and unlike allergy will affect anybody who eats the fish.

Shellfish and fish can also absorb poison from toxic algae at certain times of year. This can give rise to a number of syndromes: amnesic, diarrhetic, paralytic and neurotoxic shellfish poisoning. People affected by this can still eat shellfish when the toxin is not present.

A parasite known as the cod worm, relatively common in Spain, can cause urticaria, gastric upset or even anaphylaxis when present in fresh cephalopods, cod, hake or anchovy. These symptoms can easily be mistaken for allergy and should be considered if you have a problem after eating fish on one occasion but not subsequently.

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# Living with allergy – wheat

A confirmed diagnosis of allergy to wheat means that all wheat-based foods and products made from wheat should be avoided, this will include many common foods and ingredients.

Breadcrumbs/batter	Wheat starch
Whole wheat	Modified starch*
Wheat germ	Edible starch
Wheat germ oil	Wheat bran
Hydrolysed wheat protein	Wheat thickener/thickener*
Wheat gluten	Rusk
Wheat flour	Raising agent containing wheat starch
Wheat binder	Wheat starch

\* Unless specified as being from another source such as potato or corn.

As with all other allergies, it is important to check food labels for any of these ingredients.

Some *medicines* may also contain ingredients which have been made from starch. It is best to check this with your pharmacist.

## The difference between gluten intolerance and coeliac disease

A wheat allergy is different to gluten intolerance. Gluten is a part of the wheat protein found in rye, barley and oats. People who are unable to tolerate gluten have what is known as coeliac disease. Specialist foods for people with coeliac disease may be made from wheat but with the gluten removed. These products can still cause a reaction in a person with wheat allergy.

So when buying food, make sure it is wheat-free and not just gluten-free.

## Foods to avoid

Cereals All wheat-based cereals Wheat flour Couscous	Tabbouleh Semolina Spelt/kamut (these are types of wheat)
Pasta	Avoid all wheat-based pasta
Bread	Avoid all wheat-based breads
Biscuits and cakes	All biscuits and cakes containing wheat Ice cream cones and wafers
Dairy products	Yoghurts containing wheat grain or muesli Ice cream
Eggs	Scotch eggs
Oils and fats	Wheat germ oil Margarine
Meats Burgers Pies Pâté	Meat pastes Sausages Cold processed meats Meats cooked in breadcrumbs/batter/pastry
Fish Fish paste	Fish pâté Fish in pastry/breadcrumbs/batter/sauces
Fruit	Fruit in batter e.g. banana or pineapple fritters
Vegetables	Vegetables in sauce e.g. baked beans Vegetables in breadcrumbs

Drinks Malted milk drinks Powdered milk shake flavours Puddings	Tinned or packet custards and desert mixes Semolina Trifle Chocolate containing wheat
Miscellaneous Flavoured crisps Herbs Spices Sauces, including ketchup, salad cream, mustard, gravy, soya sauce Sauces thickened with wheat flour	Baking powder Gravy granules Stock cubes Soup Dry roasted nuts Monosodium glutamate (MSG) Any unlabeled products

## Alternatives to wheat

There are a number of wheat-free alternatives available, for example, bread, pasta, and biscuits.

As rye, barley and oats are related to each other, you should check if you are also allergic to these. If not, non-wheat flours may be used for baking. Examples of these are soya, corn/maize, rice, potato, rye, barley (buckwheat).

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# Living with allergy – nuts and peanuts

A confirmed diagnosis of allergy to nuts means that you will need to avoid all nuts. Although peanuts belong to a different food family, unless you are specifically told otherwise, they too should be avoided. The reasons for this are the allergy often extends between nuts, plus, contamination may occur between the different types of nuts in during processing.

## Avoiding nuts

Nuts are used in a variety of manufactured foods, sometimes unexpectedly.

This list is not complete and it is always worth checking the labels on particular foods. Check the labels regularly too as recipes can change.

### Foods that often contain nuts include:

- Breakfast cereals
- Cereal bars and biscuits
- Cakes, pastries meringues
- Ice cream and desserts
- Confectionary
- Some yoghurts and fromage frais
- Vegetarian products e.g. vegetable burgers
- Hydrolysed vegetable protein (sometimes made from peanut)
- Salad and salad dressings
- Pesto sauces
- Satay sauce
- Curries, Chinese Indian, Thai and Indonesian dishes Stuffing mixtures for meats
- Marzipan and praline
- E471 and E472 which may be made from peanut oil Lecithin, sometimes made from peanut

Watch out for peanuts under different names, including, *groundnuts, earth nuts, monkey nuts, Chinese nuts, goober nuts, ground pea* and *bamba*. *Arachis oil* in cosmetics is peanut oil. People with almond allergy should avoid *almond* essence. Roasting and heat treatment can make nuts more allergenic. Unwrapped foods such as those bought in bakeries have no labels and are best avoided.

## May contain traces...

If you or your child react to very small traces of nut, it is best to avoid foods with labels stating that the food may contain nuts or traces of nuts.

## Peanut and nut oils

Peanut oil may be classified as either crude or refined. For the majority of people with a peanut allergy, refined oil will cause either no reaction or only a mild one. This is because the protein which causes the allergy is not present in the oil.

Unrefined or crude oils are more likely to cause symptoms. Speciality oils such as walnut oil can contain the allergy-causing protein and it is a good idea to avoid them.

## Medicines, multivitamins and cosmetics

Peanut or nut oil are sometimes used in medicines, multivitamins and cosmetics. Usually this is the refined oil and should not cause a problem. However, if you are in doubt then try and avoid using the product. For medicines, check with the pharmacist.

## Sesame seeds are different

Commonly found in seeded breads and hummus, sesame seeds are not nuts. If sesame seeds haven't yet been tried, it may be worth talking to one of the allergy team before introducing them into the diet.

## Coconut, pine nut and nutmeg

Most people with a nut allergy can eat these without a problem as they belong to different food groups to nuts. Sometimes *cashew nuts* are used in *pesto-based products* so it's always worth checking the labels.

## Legumes

Peanuts are actually legumes, so a small percentage of people who are allergic to peanuts will also be allergic to related foods: *peas beans* and *lentils*. If legumes are a problem, watch out for

products *lupin flour* which is sometimes used in bakery products, especially from the continent.

## Eating out and having some fun

As well as in restaurants, food from bakeries and delicatessen counters is unlabeled and accidental exposures can easily happen. Before eating out it is worth checking beforehand if the restaurant can guarantee that any dish is safe. If they cannot give you this guarantee then it is best to choose one that can.

If your child is having a party or going to a party, have a word with the party organiser about the food that will be served.

## Travelling by plane

Eating peanuts and nuts in airline food is the most likely cause of a reaction in flight. Remember, to avoid this risk, you can take your own food on board.

Another source of a reaction is through skin contact. If another passenger touches a surface after eating nuts, some of the nut protein may be left on the surface and picked up by the person with the allergy. As well as making sure you have the emergency medication to hand, you can clean the area around the seat with a wet wipe.

The vast majority of people do not react to proteins released from packets of peanuts. It might be worth contacting the airline before flying as some have a policy to remove all nuts on flights when they know that a passenger has a nut allergy.

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# Living with allergy – eggs

Being allergic to eggs means following an egg-free diet.

Egg is found in many foods including biscuits, cakes, pasta and other manufactured foods. While you should always check food labels, it may not always be obvious which ingredients contain egg.

## Examples of how egg can appear on a food label

- Egg protein
- Dried egg
- Egg albumin
- Albumin
- E322
- Lysozyme
- Egg lecithin
- Egg yolk
- Egg white
- Fresh egg

## Foods to be avoided

- All eggs including fried, boiled, scrambled, poached and omelettes
- Egg pasta
- Fresh pasta
- Mayonnaise
- Meringue
- Biscuits
- Cakes

## Processed foods may contain egg, examples include:

- Meat or fish with a glaze or crumb
- Meat or fish in batter
- Manufactured meat such as burgers or sausages
- Meat dishes such as moussaka
- Noodles and pasta
- Pasta dishes
- Glazed breads for example French toast
- Manufactured vegetable dishes
- Salads or vegetable dishes with dressings
- Some fruit dishes
- Frosted fruit dishes
- Malted milk drinks
- Puddings, for example, bread and butter pudding, crème caramel
- Ice cream
- Pancakes
- Yorkshire puddings
- Stuffing for meat dishes
- Soups and sauces, for example, Hollandaise and salad creams
- Fried rice dishes
- Confectionary
- Marzipan
- Icing sugar

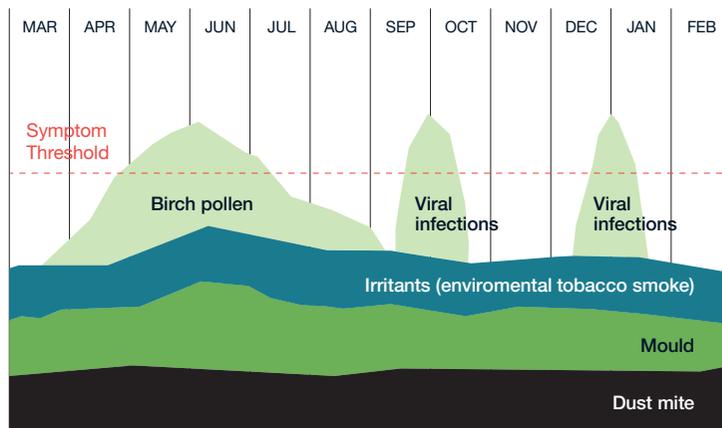
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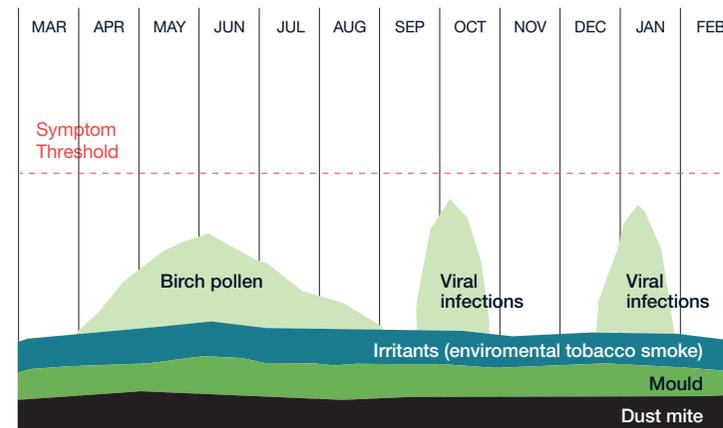
# Aero advice

Patient experiences symptoms when threshold is exceeded



The allergen symptom threshold is the point at which the cumulative allergen load leads to symptoms<sup>2</sup>

After exposure reduction



By reducing exposure to certain triggers, symptoms can be avoided<sup>2,3</sup>



## Dust mites

Pillow and mattress covers. Washing bedding in hot water (60°C).<sup>1</sup>



## Pet dander

Pet-free zones, frequent vacuuming. HEPA filters, fewer pets.



## Mould

Environmental moisture control, including use of dehumidifiers, and avoidance.



## Pollen

Changing clothes and showering after being outdoors, keeping windows closed during high pollen counts.

1. Gore RB, Custovic A, 2002, Aeroallergen avoidance: What practical advice can we give to patients?, *CPD Bulletin Immunology and Allergy*, Vol: 2, Pages: 40-43, ISSN: 1367-8949

2. Eggleston PA. *Immunol Allergy Clin North Am* 2003;23(3):533-547.

3. Wickman M. *Allergy* 2005;60(suppl 79):14-18.