

The 14 Allergens

Below are the 14 main food allergens listed by the FSA/government as affected by the December 2014 legislation. These include ingredients such as peanuts, eggs, milk, mustard, celery and Sulphur Dioxide (Sulphites). In each case the chapter describes example foods where the allergens are commonly found in, and suggests non-allergenic replacements as alternative ingredients.

Remember, that any of the 14 allergens listed in this document must by law be labelled or indicated as being present in any foods you serve.

1. Cereals containing gluten
2. Peanuts
3. Tree nuts
4. Sesame
5. Fish
6. Shellfish (Crustaceans)
7. Molluscs
8. Eggs
9. Milk
10. Soya
11. Mustard
12. Celery (and celeriac)
13. Lupin
14. Sulphur Dioxide

Allergenic Ingredient 1 - Cereals containing Gluten, (Coeliac Disease)...

Gluten intolerance is caused by the body's inability to break down gluten, a protein in wheat and other grains. Coeliac disease is a digestive condition caused by gluten intolerance and those with Coeliac Disease must eliminate gluten from their diet. Approximately 1 in a 100 people are affected by coeliac disease, which is a pretty high number.

Most common cereals:

Wheat (all forms, including durum, semolina, spelt, kamut, einkorn and faro), barley, rye, oat, malt, couscous or khorasan.

Products that may contain wheat:

Bread, baked goods, baking mixes, pasta, breadcrumbs, crackers, beer, malt coffee, muesli mixes, gluten-based additives, spreads, seasonings, condiments, sauces, chocolate bars, drinks containing cocoa, surimi, hydrolysed wheat protein.

Alternative ingredients that can be used as a substitute:

Rice flour, buckwheat, corn flour, maize flour, potato flour, tapioca flour, flours from nuts/beans/seeds, chickpeas, quinoa, soya, gluten free breads: made from rice, corn, potato, soy flour, gluten free pizza bases, gluten-free corn tortillas, gluten free pancakes/cakes, muffin mixes, gluten free pasta: corn pasta, rice pasta, rice vermicelli, rice noodles.

Coeliac UK provide extensive information on the condition

<https://www.coeliac.org.uk/food-industry-professionals/>

Allergenic Ingredient 2 - Peanuts...

Peanut allergy is a hypersensitivity reaction to dietary substances from peanuts causing an overreaction of the immune system. The allergy is a lifelong one. (Please note that this is different from tree nut allergies).

Peanuts grow in the ground like potatoes and not on trees and they are the most common cause of allergy, and like many allergies, minute traces can cause a serious reaction. Such low quantities can be someone touching a table after they have eaten peanuts and then a peanut allergy sufferer touching the table often with adverse reactions.

Alternative names for peanuts that may appear on an ingredient label:

Ground nuts, beer nuts, monkey nuts, nut meat, arachis oil, kernels, mandelonas, peanut protein.

Products that may contain peanuts:

Peanut oil, peanut flour, peanut butter, ethnic foods (e.g. African, Asian, Mexican), vegetarian meat substitutes, hydrolysed plant/vegetable protein, sauces and dressings (e.g. chilli, pesto, gravy, mole, enchilada, satay), artificial nuts, mandelonas (peanuts soaked in almond flavouring), baked goods, sweets and cereals (e.g. cake, pudding, cookies, cereal bar, nougat, marzipan), desserts, vegetarian products, egg rolls, pizza, glazes, marinades and dressings, snacks (e.g. mixed nuts.)

Peanuts are sometimes used as a substitute for pine nuts in food products such as pesto so you need to carefully check the ingredients panel.

Alternative ingredients that can be used as a substitute:

Use other seed oils as alternatives to peanut oils. Many nut butters are produced on equipment used to process peanut butter, therefore making it somewhat of a risky alternative.

Additional Info:

Experts often caution those with peanut allergies to avoid tree nuts, due to cross-contamination risks. Approximately 30% of people with an allergy to peanuts (which are legumes like beans) has or will develop an allergy to one or more tree nuts, which grow on trees.

Allergenic Ingredient 3 - Tree Nuts...

Nut allergy is a hypersensitivity to dietary substances from tree nuts causing an overreaction of the immune system which may lead to severe physical symptoms. Like those with peanut allergies, most individuals who are diagnosed with an allergy to tree nuts tend to have a lifelong allergy. Many sufferers will also be allergic to peanuts as well.

Most common nuts:

Tree nuts are ones that grow above ground on trees and include: almonds, walnuts, pecan nuts, hazelnuts, Brazil nuts, cashews, pistachio nuts, macadamia nuts, Queensland nuts.

Products that may contain nuts:

Tree nut oil, marzipan, nougat, nut extracts/paste/butters, chocolate and chocolate spreads, ethnic and vegetarian dishes, salads & dressings, sauces (e.g. BBQ, pesto), marinades & gravies, mortadella (may contain pistachios), cereals, crackers, alcoholic beverages (e.g. amaretto, frangelico), desserts, flavoured coffees, baked goods.

Additional Info:

Although the peanut is not a tree nut, some people with tree nut allergies also react to peanuts.

Allergenic Ingredient 4 - Sesame...

Allergy to sesame is increasing in the UK and it can cause severe reactions including anaphylaxis. Some allergenic people have cross-reactivity between nuts and seeds so that those with allergies to nuts may also react to sesame.

Occasionally allergic reactions to other seeds such as poppy seeds can occur.

Alternative names for sesame that may appear on an ingredient label:

Benne (benne seed, benniseed), gingelly and gingelly oil, seeds.

Products that may contain sesame:

Bread (e.g. hamburger buns, multi-grains), crackers, cereals, toast, dips and spreads (e.g. hummus, chutney), ethnic foods (e.g. stews, stir fries), sesame oil/ salt/paste (tahini)/butter, savoury products (e.g. dressings, gravies, marinades, soups, seasonings, sauces)

Alternative ingredients that can be used as a substitute:

As a garnish you can use other seeds such as sunflower and pumpkin seeds.

Also nuts can be used if the person is not allergic to peanuts and tree nuts.

Allergenic Ingredient 5 - Fish...

Finned fish can cause severe allergic reactions and is usually a life-long allergy. More than half of all people who are allergic to one type of fish are also allergic to other fish, and they are advised to avoid all fish.

Most common fish:

Anchovy, bass, bream, carp, cisco, cod, eel, flounder, grouper, haddock, hake, halibut, herring, mackerel, mahi-mahi, marlin, monkfish, pike, plaice, pollock, rockfish, salmon, sardine, shark, smelt, snapper, sole, swordfish, tilapia, trout, tuna, turbot, white fish, whiting.

Products that may contain fish:

Ethnic foods (e.g. fried rice, paella, spring rolls), salad dressing and sauces (e.g. Worcestershire, soy, barbeque), seafood soups and broths (e.g. Bouillabaisse), pizza, dips and relishes, gelatine, dried powders and flavourings

Alternative ingredients that can be used as a substitute:

Carrageenan, a type of algae used in cooking as a thickener and emulsifier, is often mistaken for a fish product. It's perfectly safe for those with fish allergy to consume.

Fish is a rich source of protein, B vitamins, niacin, vitamin A, vitamin E and several minerals. Legumes, grains, meat, poultry and other forms of protein can replicate these nutritional benefits.

Oily fish (such as salmon) is rich in omega-3. Alternative sources of omega-3 include linseed (flaxseed), rapeseed (canola), soybean oil, walnuts, margarine, and mayonnaise.

Additional Info:

It is generally recommended that individuals who are allergic to one species of fish avoid all fish and products including fish ingredients e.g. fish sauce and fish oil.

Allergenic Ingredient 6 & 7 - Shellfish (Crustaceans) & Molluscs...

Food allergy to shellfish is relatively common. Along with peanuts and tree nuts, shellfish are some of the most frequent triggers of anaphylactic reactions. Allergy to molluscs has been reported less frequently than allergy to shellfish. As shellfish and molluscs contain the same type of proteins some people may react to both food groups.

Shellfish include:

Shrimp (crevette), prawns, crab, crayfish and lobster.

Molluscs include:

Clams, cockles, mussels, octopus, oysters, whelks, snails, squid (calamari) and scallops.

Products that may contain shellfish and molluscs:

Ethnic foods (e.g. fried rice, paella, spring rolls), salad dressing and sauces (e.g. Worcestershire, soy, barbecue), seafood soups and broths (e.g. Bouillabaisse).

Alternative ingredients that can be used as a substitute:

Carrageenan, a type of algae used in cooking as a thickener and emulsifier, is often mistaken for a fish product. It's perfectly safe for those with fish allergy to consume.

Fish is a rich source of protein, B vitamins, niacin, vitamin A, vitamin E and several minerals. Legumes, grains, meat, poultry and other forms of protein can replicate these nutritional benefits.

Allergenic Ingredient 8 - Egg...

Egg allergy is a hypersensitivity to dietary substances from the yolk or whites of eggs, causing an overreaction of the immune system. The main causes of egg allergy are three proteins in eggs. Cooking can destroy some of these allergens, but not all, which means that some people might react to raw eggs but not cooked eggs.

Alternative names for egg that may appear on an ingredient label:

Albumin/albumen, conalbumin, egg (dried, powdered, solids, white, yolk), globulin, livetin, lysozyme, ovabumin, ovomucin, ovotransferrin, silico-albuminate, vitellin.

Products that may contain egg:

Meringue, mayonnaise, pasta, lecithin, sweets/confectionery (e.g. marzipan, nougat, marshmallows) creamy sauces & salad dressings (e.g. tartare, hollandaise), baked goods and baking mixes, cream-filled desserts (e.g. some ice creams, custard), foam or milk topping on specialty coffee drinks, glazes.

Alternative ingredients that can be used as a substitute:

For baking try mashed banana, a mixture of gelatine and warm water, apple sauce, and xanthan gum.

As an alternative for egg wash, use melted margarine.

Starch based egg substitutes.

For savoury dishes try crumbled tofu.

Some pasta may be egg-free. Always read the label before using these pasta types.

Additional Info:

Individuals with an egg allergy should also avoid eggs from duck, turkey, goose, quail etc.

Allergenic Ingredient 9 - Milk & Lactose...

A milk allergy is an adverse immune reaction to one or more of the constituents of milk from any animal.

An allergy to milk is the most common in childhood and about half the children who have it will grow out of it by 3 years of age. It often commences when children are given milk for the first time. Most children with a milk allergy cannot tolerate other animal milks like goat's milk, ewe's milk and buffalo milk.

Lactose intolerance is not a food allergy, but occurs in individuals who lack the enzyme lactase, which is needed to digest the milk sugar lactose. Common symptoms are diarrhoea, wind/flatulence and general discomfort.

Alternative names for milk that may appear on an ingredient label:

Casein (hydrolysate), caseinates, whey (in all forms), lactoalbumin (phosphate), lactose, lactulose, lactoferrin, lacto globulin, milk protein hydrolysate.

Products that may contain milk:

Milk (in all forms), milk powder, buttermilk, yoghurt, cream, ice cream, cheese, curds, custards, puddings, dairy desserts, butter, ghee and butter fat, salad dressing, mayonnaise, food glazed with milk, margarine, whitener, artificial butter flavour, chocolate, peanut butter, bread and other baked goods, caramel colour or flavouring, (luncheon) meat, processed meat and fish products, potatoes (instant, mashed), nougat.

Alternative ingredients that can be used as a milk substitute:

If a recipe allows, substitute milk with water, non-dairy milk (e.g. soy, rice, oat, coconut, almond) or in sweet recipes with fruit juice

Alternative ingredients that can be used as a lactose substitute:

Low-lactose or lactose-free milk (depending on severity), or replace with other products such as:

- Soy milk
- Milk made from rice, oats, quinoa, almonds, hazelnuts, coconut and potato
- Foods carrying 'lactose free', dairy-free' or 'suitable for vegans' signs
- Fermented dairy products such as probiotic yoghurt, sour cream, cottage cheese, hard cheeses may be easier to digest than fresh dairy products

Additional Info:

The lactose contained within milk or dairy products may not be listed separately on the food label, so you need to check the ingredients list for milk and dairy products.

Allergenic Ingredient 10 - Soya...

Soya is a hidden ingredient in many products as it is used as an ingredient in a vast number of foods to boost protein levels. Soya protein is used as a meat substitute in various products. Soya allergy is a common childhood allergy with symptoms similar to those of milk allergy. It can cause anaphylaxis but more often symptoms are less severe

Alternative names for soy that may appear on an ingredient label:

Soy (all forms e.g. albumin, fibre, flour, grits, milk, nuts, sprouts, oil), soya, soja, soybean, soy protein (concentrate, isolate), textured vegetable protein (TVP), edamame, bean curd/tofu, soy lecithin, okara.

Products that may contain soy:

Soybean butter, soy milk, soy oil, hydrolysed vegetable/plant/soy protein, sauces (e.g. soy, shoyu, tamari, teriyaki, Worcestershire), miso, tempeh, soy bean sprouts, bread crumbs,

cereals, crackers, vegetarian dishes, vegetable gum, vegetable starch, surimi, canned tuna, soups & broths, flavourings.

Alternative ingredients that can be used as a substitute:

Try milk or dairy products. If the person is also allergic to milk or dairy products, try alternatives such as:

- Potato, rice, hemp, almond and coconut options
- In place of soy flour, try rice flour
- In place of soy oil, try rapeseed, corn or olive oil
- In place of soy sauce, try using a mixture of balsamic vinegar and salt
- Incorporate vegetables, whole grains and other lean sources of protein

Allergenic Ingredient 11 - Mustard...

This allergy is more of a problem in France and not very common in the UK. However, with more people from the continent travelling to and working in the UK, customers may enquire about mustard in foods. The symptoms of a mustard allergy may come on rapidly, usually within minutes; however, this may also take up to two hours to develop.

Alternative names for mustard that may appear on an ingredient label:

Mustard seed, mustard leaves, mustard flower, mustard oil, sprouted mustard seeds, mustard powder.

Products that may contain mustard:

Sausages, processed meat products, roulade, spice mixes, pickles, marinades, soups, sauces, chutneys, delicatessen salad, some mayonnaises, barbecue sauce, fish paste, ketchup, tomato sauce, piccalilli, pizza, salad dressings, Indian food including curries.

Allergenic Ingredient 12 - Celery (and celeriac)...

Allergy to celeriac (the celery root) is more common than to celery stick, although both can cause severe reactions. Symptoms vary from mild ones, such as oral allergy syndrome, to anaphylactic shock. This allergy is more of a problem in Switzerland, France and Germany and is not common in UK. With more people from the continent travelling and working in the UK, customers may enquire about celery in foods.

The allergy can cause anaphylactic shock. Items like celery salt and celeriac spice can cause reactions and are widely found in stock bases.

Alternative names for celery that may appear on an ingredient label:

Celery stalk, celery leaf, celeriac (the root of celery), celery seed.

Products that may contain celery:

Celery salt, vegetable juices containing celery, spice mixes, curry, bouillons, soups, stews, sauces, processed meat products, sausages, salads e.g. Waldorf salad, vegetable salad, potato salad with bouillon, savoury snacks.

Alternative ingredients that can be used as a substitute:

Fenugreek, parsley root, lovage.

Additional Info:

Celery – the root, stalk and leaf – are traditionally used to prepare bouillons, soups, stews and sauces and as a result you need to check the ingredients panel very carefully.

Allergenic Ingredient 13 - Lupin...

The lupin is well-known as a popular garden flower with its tall, colourful spikes. Allergy to lupin has been recognised for some time in mainland Europe, where lupin flour is used fairly commonly in food products. Lupin seeds are often used in bread and the lupin flour in pastries.

In the UK, cases of lupin allergy are less common as lupin is rarely used in foods. However, you need to be careful of food products not originating from the UK. It can cause severe reactions and anaphylaxis. Some people also have a cross-reaction with peanut allergy.

Alternative names for lupin that may appear on an ingredient label:

Lupine, lupin flour, lupin seed, lupin bean.

Food/products that contain or may contain lupin:

Lupin flour, lupin seed, lupin bean, baked goods such as pastries, pies, waffles, pancakes, pasta products, pizzas, vegetarian meat substitutes, lupin sprouts.

Allergenic Ingredient 14 - Sulphur Dioxide...

Sulphur Dioxide can cause allergy-like symptoms in people with underlying asthma and allergic rhinitis. The most common reaction is wheezing, tight chest and cough, which can be severe and distressing.

Alternative names for sulphur dioxide that may appear on an ingredient label:

E220-228 (European names); potassium bisulphite or metabisulphite; sodium bisulphite, dithionite, metabisulphite or sulphite, sulphiting agents, sulphurous acid.

Products that may contain sulphur dioxide:

Alcoholic and non-alcoholic drinks; bottled juices and concentrates (e.g. lemon, lime); canned, frozen and dried fruit and vegetables; cereals; condiments; potatoes, starches, sugar syrups, tomato products (e.g. paste, pulp and purée), vinegar.

Additional Info:

Sulphur Dioxide is added to some processed food to maintain colour, prolong shelf life and prevent the growth of micro-organisms. The use of sulphites is regulated at under >10mg/kg or 10mg/Litre. It must be labelled if the food contains greater than 10mg/kg or 10mg/litre and expressed as SO₂.