
Food Hypersensitivity

FOOD ALLERGY AND INTOLERANCE



nuts



gluten



milk



crustaceans



eggs



celery

Food Hypersensitivity

FOOD ALLERGY AND INTOLERANCE

In 2014, the European Food Safety Authority (EFSA) estimated that food allergies and intolerances occurred in approximately 3% of adults and children. Though it is generally accepted that the incidence of food allergies and intolerance in industrialised nations appears to be increasing, determining precise numbers is difficult due to relatively mild symptoms in some cases and the unreliability of self-diagnosis.



gluten

fish

milk

crustaceans

This information leaflet is designed to answer many of the questions people may have in regard to food allergies and intolerances, collectively known as food hypersensitivities.

- Food is one of a number of allergy triggers (pollen, dust, animal dander, latex)
- A food allergy differs from food intolerance in the type of reaction by the body
- Symptoms and their onset can vary with the trigger and the individual's sensitivity
- People can experience hypersensitive responses to more than one type of food or food ingredient
- Some foods can trigger both an allergic reaction and intolerance, e.g. milk, wheat
- Processing a food, e.g. cooking may or may not alter its allergenicity
- Avoidance is currently the only way of managing a food allergy or intolerance
- Diagnosis of a food allergy or intolerance should involve medical consultation
- Changes to your diet should only be undertaken in consultation with suitably qualified experts
- EU food law identifies 14 specific food allergens that must be declared when they are used to produce or prepare foods
- The requirement to declare/label food allergens does not apply when they are present at low levels due to cross-contamination
- For pre-packed food, allergens must be declared in the list of ingredients or elsewhere on the packaging where there is no ingredient list
- Allergen information for non-prepacked foods in Ireland must be provided in written format
- Precautionary labels ('may contain') are voluntarily applied by food businesses

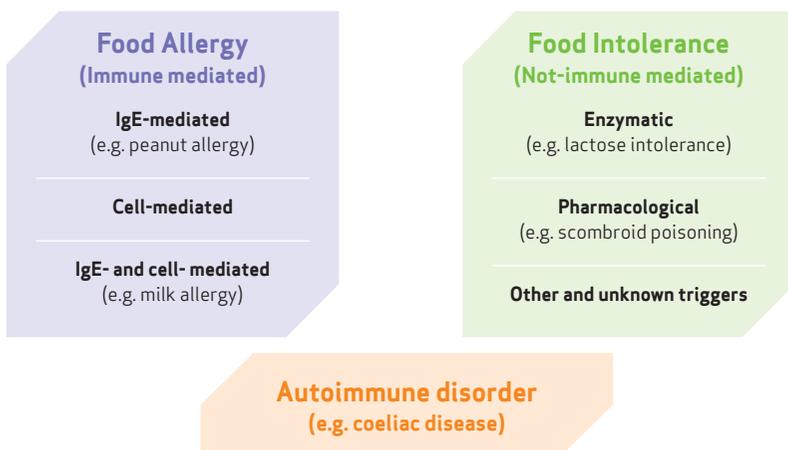
TERMINOLOGY

The distinction between a food allergy and intolerance is not defined in legislation. Though interpretations can vary, experts in the field consider a food allergy to be a hypersensitive reaction to a food that is mediated by the immune system, particularly involving IgE antibodies (e.g. reactions to peanut, soya and eggs), cellular mechanisms or both. In addition, autoimmune adverse reactions to food (e.g. coeliac disease) occur when the immune system reacts abnormally to the ingestion of a food or food component. An adverse reaction that does not involve the immune system directly is considered food intolerance, e.g. reactions to sulphites, lactose.

SYMPTOMS

Depending on the food involved and the sensitivity of individuals, symptoms associated with food allergy or intolerance can appear immediately (within minutes) or take several hours or days to manifest. Symptoms can range from mild irritation to severe or life threatening anaphylaxis and may affect the skin, oral cavity, gastrointestinal tract, respiratory tract or the eyes. Because many of the symptoms associated with food allergy or intolerance can have unrelated triggers, medical advice should be sought before taking remedial action such as dietary alteration.

ADVERSE REACTIONS TO FOOD



Adverse reactions to food (adapted from EFSA Scientific Opinion on the evaluation of allergenic foods and food ingredients for labelling purposes, 2014).

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ANAPHYLAXIS

Anaphylaxis is a rapid and potentially life-threatening allergic reaction caused by exposure to allergens including certain foods. Symptoms experienced during anaphylactic reactions to foods such as peanut can begin in the mouth and throat within minutes of ingestion and quickly progress to affect the pharynx, skin, respiratory tract and cardiovascular system, either individually or in combination. People susceptible to anaphylactic reactions need to carry life-saving adrenaline auto-injector devices in case of emergency. Staff in catering facilities such as restaurants or takeaways and in schools or other institutions should be aware of susceptible individuals and have appropriate training to be able to provide assistance if required.

MEDICAL DIAGNOSIS IS IMPORTANT

Medical consultation is recommended when a person believes that they or someone in their care are suffering from a food allergy or intolerance. Accurate diagnosis is particularly important for children or where the symptoms cause severe or persistent discomfort. Incorrect diagnosis can result in the actual cause of a health problem being overlooked and in unnecessary dietary restrictions.

FOOD ALLERGY AND INTOLERANCE IN CHILDHOOD

Food allergy and intolerance can appear early in life as a child is gradually introduced to new foods such as cows' milk, egg, soy and fish. The hypersensitive reaction to food experienced by many children recedes over time as tolerance is developed. However, the proportion of children who develop tolerance to some allergens, such as peanut is relatively low. Currently, the only way of managing food allergies or intolerances is by eliminating the offending food or ingredient from the diet, but this should only be undertaken under the guidance of suitably qualified experts to minimise the impact on a child's growth and development.



ALLERGENS TRIGGER ALLERGIC REACTIONS

Most allergenic foods contain one or more allergenic proteins (allergens) that trigger an allergic reaction in susceptible individuals. Some allergenic proteins are sensitive to processes such as cooking, though this is not a reliable safeguard. For instance, boiling (moist heat) peanuts can reduce their allergenic potential but roasting (dry heat) does not. Most allergenic proteins resist degradation in the harsh environment of the human stomach, a characteristic used to screen new food ingredients for their allergenic potential.

SOME FOODS CAN CAUSE BOTH AN ALLERGY AND INTOLERANCE

Certain foods can be responsible for both an allergic reaction and intolerance. For example, milk proteins can cause an allergic response in some people, while a reduced ability to metabolise lactose, the primary sugar in cow's milk, is called lactose intolerance.

COELIAC DISEASE

Hypersensitivity to gluten (coeliac disease) is a genetically determined disorder that is estimated to affect 0.5-1% of the Irish population and for which gluten avoidance is the only treatment. Gluten is a water-insoluble mixture of proteins that can damage the mucosa of the small intestines in people with the coeliac condition and is defined in EU legislation as *“a protein fraction from wheat, rye, barley, oats or their crossbred varieties and derivatives thereof”*.

Foods containing no more than 20 mg/kg gluten can be labelled as ‘gluten-free’ while those processed specifically to reduce the gluten content and contain no more than 100 mg/kg, can be labelled as ‘very low gluten’. It is possible that a food made with a cereal containing gluten can carry a ‘gluten free’ or ‘very low gluten’ declaration. Coeliacs can avail of naturally-occurring gluten-free cereals such as rice, maize and sorghum.



cereals
containing
gluten

oats

wheat

Ingredients containing gluten are specifically prohibited in the manufacture of infant formula and follow-on formula. In addition, processed cereal-based foods and baby foods intended for infants and young children under six months of age should indicate the presence or absence of gluten.

Foods labelled as 'gluten-free' or 'very low gluten' may be accompanied by the statements 'suitable for people intolerant to gluten' or 'suitable for coeliacs'. 'Gluten-free' or 'very low gluten' foods may also be accompanied by the statements 'specifically formulated for people intolerant to gluten' or 'specifically formulated for coeliacs' if the food is specially produced, prepared and/or processed to reduce the gluten content or substitute the gluten-containing ingredients with other ingredients naturally free of gluten.

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FOOD ALLERGEN LABELLING

Many foods and food ingredients can trigger an allergic reaction or intolerance, but only 14 require specific allergen labelling under EU law (see list below). For pre-packed food, food allergens must be declared on the packaging, e.g. in the list of ingredients, if there is one. Foods that do not require a list of ingredient must still indicate the use of food allergens by using the word 'contains' followed by the specific allergen(s). Food businesses such as restaurants, delicatessens, canteens, takeaways, cafes, retail outlets, hotels etc. must also provide written allergen information for 'loose' food that is non-prepacked or packed for direct sale (see section on 'loose food' below). Certain derivatives of food allergens are exempt from food allergen labelling because the protein components known to elicit the allergic response have been removed during processing.

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labelling

Regulation (EU)
No 1169/2011

direct sale



Food allergens that require specific allergen labelling under the Food Information to Consumers (FIC) Regulation (EU) No 1169/2011:

1. **Cereals containing gluten**, namely: wheat (such as spelt and khorasan wheat), rye, barley, oats or their hybridised strains, and products thereof, except:
 - a) *Wheat based glucose syrups including dextrose;*
 - b) *Wheat based maltodextrins;*
 - c) *Glucose syrups based on barley;*
 - d) *Cereals used for making alcoholic distillates including ethyl alcohol of agricultural origin.*
2. **Crustaceans** and products thereof.
3. **Eggs** and products thereof.
4. **Fish** and products thereof, except:
 - a) *Fish gelatine used as a carrier for vitamin or carotenoid preparations;*
 - b) *Fish gelatine or Isinglass used as fining agent in beer and wine.*
5. **Peanuts** and products thereof.
6. **Soybeans** and products thereof, except:
 - a) *Fully refined soybean oil and fat;*
 - b) *Natural mixed tocopherols (E306), natural D-alpha tocopherol, natural D-alpha tocopherol acetate, natural D-alpha tocopherol succinate from soybean sources;*
 - c) *Vegetable oils derived phytosterols and phytosterol esters from soybean sources;*
 - d) *Plant stanol ester produced from vegetable oil sterols from soybean sources.*
7. **Milk** and products thereof (including lactose), except:
 - a) *Whey used for making alcoholic distillates including ethyl alcohol of agricultural origin;*
 - b) *Lacitol.*
8. **Nuts**, namely: almonds (*Amygdalus communis* L.), hazlenuts (*Corylus avellana*), walnuts (*Juglans regia*), cashews (*Anacardium occidentale*), pecan nuts (*Carya illinoensis* (Wangenh.) K. Koch), Brazil nuts (*Bertholettia excelsa*) pistachio nuts (*Pistacia vera*), macadamia nuts or Queensland nuts (*Macademia ternifolia*) and products thereof, except for nuts used for making alcoholic distillates including ethyl alcohol of agricultural origin.
9. **Celery** and products thereof.
10. **Mustard** and products thereof.
11. **Sesame seeds** and products thereof.
12. **Sulphur dioxide and sulphites** at concentrations of more than 10 mg/kg or 10 mg/litre, expressed as SO₂.
13. **Lupin** and products thereof.
14. **Molluscs** and products thereof.

CROSS-CONTAMINATION WITH FOOD ALLERGENS

Consumers must be informed by the label when a food is produced with one or more of the specified 14 allergenic food ingredients. However, such labelling is not required where low levels of the allergenic ingredients are present as a result of cross-contamination. Where an undeclared food allergen is detected at low levels in a food, the FSAI may take proportionate action based on an assessment of the potential risk to public health.

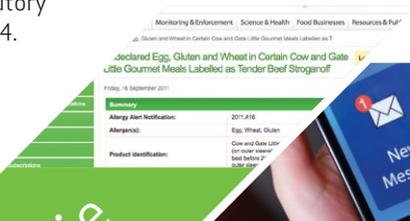
PRECAUTIONARY FOOD ALLERGEN LABELS

Food businesses sometimes use advisory labels such as 'may contain...' or 'produced in a factory that uses...' to alert vulnerable consumers that their product may inadvertently contain low levels of certain allergens. While such labelling is voluntary and can provide a valuable warning to consumers when prudently applied, they should not be used by food businesses as a substitute for good manufacturing practices (GMP) or HACCP strategies. The spurious use of precautionary labels can result in unnecessary dietary restrictions and possibly desensitise people with food allergies who may then take risks with those foods. A precautionary statement cannot be considered a food allergen declaration as required by Statutory Instrument (S.I.) No. 489 of 2014.

PROVISION OF ALLERGEN INFORMATION FOR NON-PREPACKED (LOOSE) FOODS

Under the FIC Regulation (EU) No 1169/2011, allergen information must be provided for non-prepacked foods. This includes foods that are prepared by catering establishments, e.g. restaurants, takeaways and hotels, food and beverages presented and sold loose, e.g. unpackaged breads, cheeses, draught beer and cider, food packaged on site for direct sale to the final consumer, e.g. delicatessen, takeaway, and food provided by distance selling, e.g. ordered remotely for delivery.

The FIC Regulation permits EU Member States to determine how allergen information for non-prepacked food is provided within their jurisdictions. In Ireland, this information must be provided in written format as set out in S.I. No. 489 of 2014. Details of how food businesses can comply with this requirement are set out in the FSAI information leaflet *Allergen Information for non-Prepacked Food and Guidance Note 28 on Food Allergen Information for Non-Prepacked Foods in Ireland* (www.fsai.ie).



www.fsai.ie

sms alerts

MONITORING THE LABELLING OF FOOD ALLERGENS

Prepacked food samples collected by environmental health officers are tested by the public analyst laboratories each year for the presence of certain food allergens. When clear breaches of the food allergen labelling legislation are detected, a food business may be asked to place additional labels on a product. However, depending on the potential risk, a product may be withdrawn or recalled and a notification sent to the EU rapid alert system for food and feed (RASFF). Even where labelling rules have not been breached by the presence of a food allergen, the FSAI may take action in the interests of consumer safety, based on an assessment of the potential risk to public health.

FSAI EARLY WARNING SYSTEM

In 2009, the FSAI initiated an early warning system for people with food allergies or intolerances, or their guardians, and who have registered with the FSAI. This system enables real-time transfer via email and SMS text messaging of information about food allergy issues as the FSAI becomes aware of them. Registration for this resource can be made through the FSAI website at <https://www.fsai.ie/subscriptions/>.

MAKE A COMPLAINT

Consumers with a food allergy or intolerance are encouraged to contact the FSAI directly where they have had an adverse reaction to a prepacked food that they suspect may not be labelled appropriately, or to a food consumed in a catering establishment. Where possible, a sample of the suspect food should be submitted in order to establish the presence of particular allergenic ingredients.

USEFUL LINKS

- Food Information on Prepacked Foods <http://www.fsai.ie>
- Allergen Information for non-Prepacked Food <http://www.fsai.ie>
- Gluten-Free Foods: Report of the Scientific Committee <http://www.fsai.ie>
- Guidance Note No. 24: 'Gluten-free' and 'Very Low Gluten' Declarations (Revision 1) <http://www.fsai.ie>
- Guidance Note No. 28: Food Allergen Information for Non-Prepacked Foods in Ireland <http://www.fsai.ie>
- FSAI Safe Catering Pack <http://www.fsai.ie>
- Be Food Allergen Aware Poster <http://www.fsai.ie>
- Opinion of the Scientific Panel on Dietetic products, nutrition and allergies [NDA] on the evaluation of allergenic foods for labelling purposes <http://www.efsa.europa.eu/en/efsajournal/pub/32.htm>
- Food Allergy and Intolerance-Guidance for the Catering Industry <http://www.safefood.eu/>
- Anaphylaxis Campaign www.anaphylaxisireland.ie
- Coeliac Society of Ireland www.coeliac.ie

The information provided in this leaflet will be updated regularly to reflect any changes to legislation, standards or guidance.



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