

# Food Hypersensitivity

## FOOD ALLERGY AND INTOLERANCE

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nuts



gluten



milk



shellfish



eggs



celery

# Food Hypersensitivity

## FOOD ALLERGY AND INTOLERANCE

In 2004, the European Food Safety Authority (EFSA) estimated that food allergies and intolerances occurred in approximately 1-3% of the EU population and in about 4-6% of 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.**

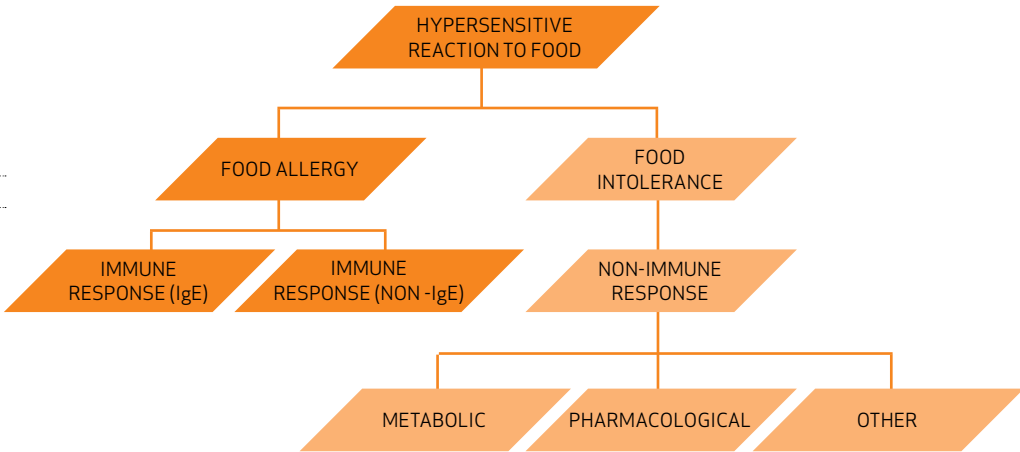
- Food is one of a number of allergy triggers (pollen, dust, animal dander, latex).
- A food allergy differs from food intolerance in the type of reaction by the body.
- Symptoms and their onset can vary with the trigger and the individual's sensitivity.
- People can experience hypersensitive responses to more than one type of food.
- Some foods can trigger both an allergic reaction and intolerance, e.g. milk.
- 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 on the advice of a dietitian.
- Products containing any of the 14 food allergens as an ingredient must declare that allergen on the label.
- Allergens can be declared in the list of ingredients or elsewhere on the packaging.
- Current legislation does not require low levels of contaminating food allergens to be included on the food label.
- Current legislation does not require food sold loose or by catering establishments to carry an allergen label.
- 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 milk, peanut, soya, eggs, but also non IgE antibodies (gluten hypersensitivity or coeliac disease). 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.



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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 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 a dietitian to minimise the impact on a child's growth and development.



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”.

## 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”. Under EU food law, foods containing gluten at less than 20mg/kg can be labelled as ‘gluten-free’ while those processed specifically to reduce gluten levels to between 20 and 100mg/kg can be labelled as ‘very low gluten’. Coeliacs can avail of naturally-occurring gluten-free cereals such as rice, maize and sorghum. Guidance Note 24, published by the Food Safety Authority of Ireland (FSAI) in 2010, provides information on best practice to avoid cross-contamination during the manufacture of ‘gluten-free’ or ‘very low gluten’ foods.

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 6 months of age should indicate the presence or absence of gluten.



cereals  
containing  
gluten

oats

wheat

## MANAGEMENT OF A FOOD ALLERGY OR INTOLERANCE

Research suggests that in some cases, tolerance may be built up by a gradual exposure to an allergenic food. However, the only way of successfully managing a food allergy or intolerance is to eliminate the offending food or food ingredient from the diet, but this should only be done in consultation with a dietitian.

## 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 as with peanuts where boiling can reduce or eliminate the allergenic potential but roasting 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, e.g. 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.



milk



shellfish



eggs

## 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. Food allergens must be declared on the packaging, e.g. in the list of ingredients, if there is one. Alcoholic beverages (>1.2% by volume of alcohol) do not require ingredient labelling but must still indicate the use of food allergens on the label. Certain derivatives of known food allergens are exempt from food allergen labelling because the protein components known to elicit the allergic response have been removed during processing.

### Following are the 14 food allergens which require specific allergen labelling under Directive 2000/13/EC as amended:

1. Cereals containing gluten (i.e. wheat, rye, barley, oats, spelt, kamut 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 for making distillates or ethyl alcohol of agricultural origin for spirit drinks and other alcoholic beverages.*
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.*



labelling

2000/13/EC



7. Milk and products thereof (including lactose), except:
  - a) *Whey used for making distillates or ethyl alcohol of agricultural origin for spirit drinks and other alcoholic beverages;*
  - b) *Lacitol.*
8. Nuts, i.e. almonds (*Amygdalus communis* L.), hazelnuts (*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 and Queensland nuts (*Macademia ternifolia*) and products thereof, except:
  - a) *Nuts used for making distillates or ethyl alcohol of agricultural origin for spirit drinks and other alcoholic beverages.*
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 10mg/kg or 10 mg/litre, expressed as SO<sub>2</sub>.
13. Lupin and products thereof.
14. Molluscs and products thereof.

### **Specific Food Allergen Labelling is not required in Particular Situations:**

- Foods prepared by catering establishments (restaurants, hotels)
- Foods that are presented and sold loose (unpacked peanuts or cheese)
- Foods packaged on site for direct sale to the final consumer (delicatessen, takeaway)

However, such foods will also require allergen labelling from 2014 when new labelling rules adopted at EU level are expected to become mandatory.

Certain derivatives of known food allergens are exempt from food allergen labelling because the protein components known to elicit the allergic response have been removed during processing.



direct sale

## 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.

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.

## FOOD LABELLING REQUIREMENTS BY CATERERS

Current EU food allergy labelling requirements do not apply to caterers such as restaurants, pubs, and takeaways that provide prepared food to consumers. Therefore, it is important that people susceptible to particular food allergies or intolerances should satisfy themselves that the food they are purchasing at a catering establishment does not contain a food ingredient that would trigger an adverse reaction. Notwithstanding this, caterers have a duty of care to consumers to ensure that information is made available, particularly when requested regarding specific menu items, their source and preparation. Where allergen-free options are provided, caterers should ensure that the supply, storage, preparation, cooking and handling of those foods are carried out to the highest possible standard that ensures a minimal risk of cross-contamination with allergenic foods or food ingredients.

## MONITORING THE LABELLING OF FOOD ALLERGENS

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 [http://www.fsai.ie/news\\_centre/subscriptions.html](http://www.fsai.ie/news_centre/subscriptions.html).

## 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 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

- Gluten-Free Foods:  
Report of the Scientific Committee  
<http://www.fsai.ie>
- Guidance Note 24:  
FSAI Safe Catering Pack  
<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/en/>
- Anaphylaxis Campaign  
[www.anaphylaxisireland.ie](http://www.anaphylaxisireland.ie)
- Coeliac Society of Ireland  
[www.coeliac.ie](http://www.coeliac.ie)

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[www.fsai.ie](http://www.fsai.ie)

sms alerts

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



Abbey Court, Lower Abbey Street, Dublin 1.

For further enquiries on food allergen labelling, please visit the FSAI website

**[www.fsai.ie](http://www.fsai.ie)**

or contact the FSAI Advice Line on

**1890 33 66 77**