

# Workshop: Gluten and wheat free foods

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During the session we will discuss:

1. Reasons for people purchasing gluten free (GF) or wheat free (WF) products: coeliac disease, gluten intolerance and wheat intolerance/allergy
2. Differences between gluten and wheat protein
3. Naturally occurring GF and WF alternatives, and manufactured versions
4. Nutritional considerations of removing gluten and wheat protein from the diet
5. Cross contamination
6. Food labelling
7. Useful resources and questions



Why do people buy gluten (GF) or wheat free (WF) foods?



## 1. Health halo effect:



News > Health

## Gluten-free diet 'could raise heart attack risk'

FRANCESCA GILLETT | Wednesday 3 May 2017 10:55 BST |

Gluten-Free Diets Can Be Healthy for  
April 20, 2013 by [ThePaleoMom](#) -- 27 Comments

The celebrity diet that could make you fat: Gluten free diet loved by Victoria Beckham, Gwyneth Paltrow and Miley Cyrus is crammed with calories

By [TONI JONES](#)

PUBLISHED: 12:45, 29 October 2012 | UPDATED: 15:27, 29 October 2012



Why do people buy gluten (GF) or wheat free (WF) foods?



### 1. Health halo effect:



### 2. Improves symptoms:

### 3. Clinical diagnosis:

- Gluten intolerance
- Coeliac disease
- Wheat intolerance or allergy

### 4. Providing food for those following a GF or WF diet

# Symptoms of people intolerant to gluten or wheat:



## Eyes

Itchy eyes, watery eyes, prickly eyes, red eyes, swollen eyes, 'allergic shiners' – dark areas under the eyes due to blocked sinuses.

## Airways

Wheezy breathing, difficulty in breathing, coughing (especially at night time), shortness of breath.

## Digestion

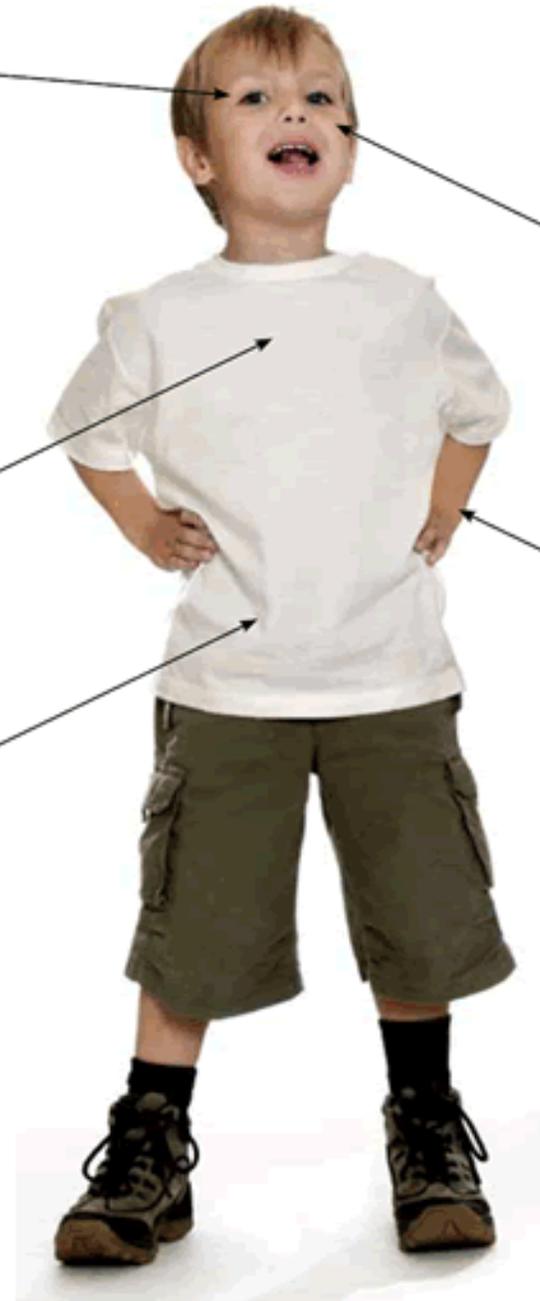
Swollen lips/tongue, itchy lips/tongue, stomach ache, feeling sick, vomiting, constipation, diarrhoea, bleeding from the bottom, reflux, poor growth.

## Nose, Throat and Ears

Runny nose, blocked nose, itchy nose, sneezing, pain in sinuses, headaches, post-nasal drip (mucous drips down the throat from behind the nose) loss of sense of smell and taste, sore throat, swollen larynx (voice box) itchy mouth and/or throat, blocked ear and glue ear.

## Skin

Urticaria – wheals or hives bumpy, itchy raised areas, rashes.  
Eczema - cracked, dry, or weepy, broken skin.  
Angiodema – swelling of the deep layers of the skin.



May be immediate or delayed by hours or days

Mild or severe

# Symptoms of people intolerant to gluten or wheat:



## Coeliac disease:

<https://www.coeliac.org.uk/coeliac-disease/about-coeliac-disease-and-dermatitis-herpetiformis/>

## Wheat allergy/intolerance:

<https://www.nutrition.org.uk/nutritionscience/allergy/wheat-intolerance-and-coeliac-disease.html>



May be immediate or delayed by hours or days

How many people have a clinical reason for following a GF or WF diet?



### Reaction to gluten:

- Coeliac disease: incidence of **1 in 100** (Coeliac UK, 2017), i.e. 650 000
- 24% who have the condition have been diagnosed – nearly **500 000 have it but don't know yet**
- Non-coeliac gluten sensitivity? **Estimated 3-6% population**

### Estimated market:

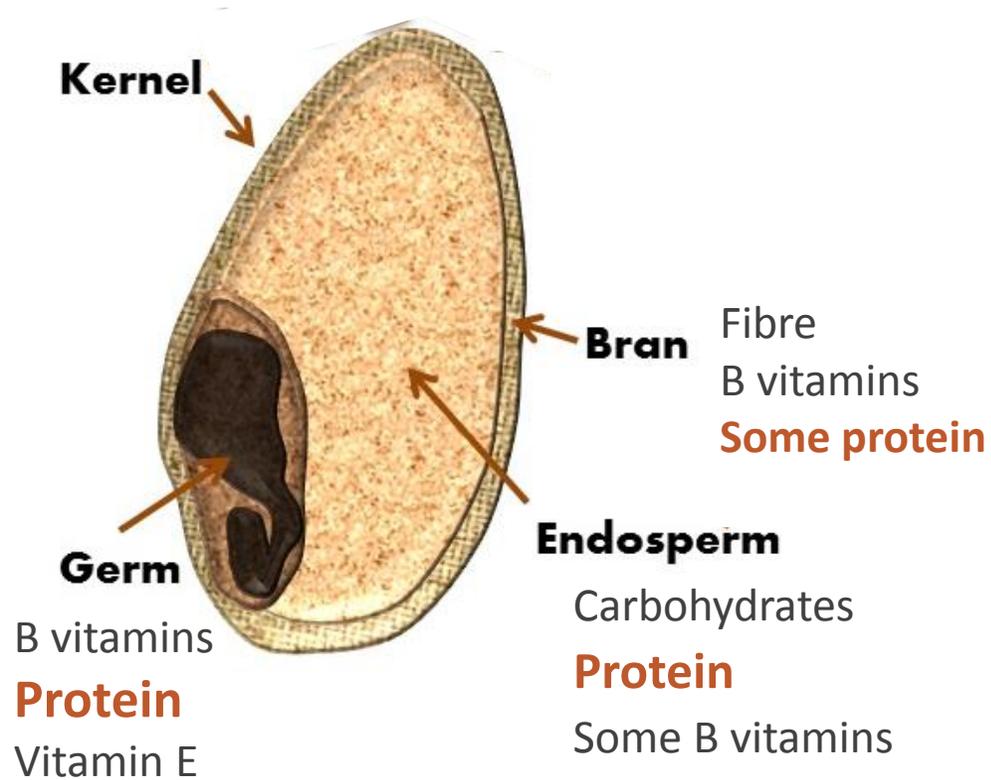
- UK FreeFrom market:  
2015: £470m  
2020: £630m (Mintel)
- > half (54%) of those who eat free from would stop eating these foods if they thought that they were less healthy
- GF products on prescription – current situation

### Reaction to wheat:

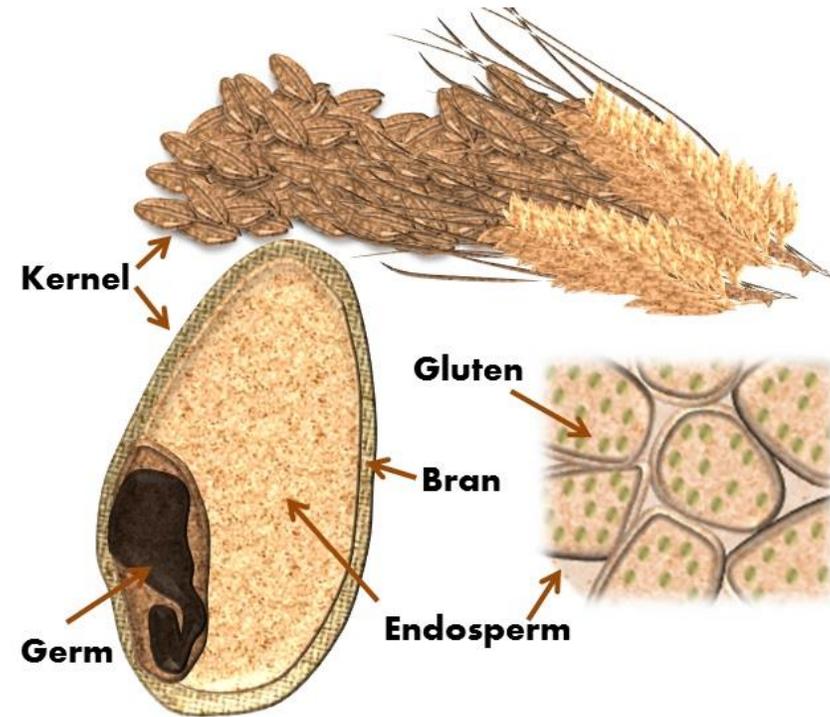
- 1-2% of adults have a food allergy and 5-8% of children (FSA, 2016), i.e. 2 million
- UK hospital admissions for children with food allergies increased by 700% since 1990
- Wheat intolerance?

# What is wheat protein and gluten?

## WHEAT:



## GLUTEN:



# Foods that contain **wheat** and naturally WF foods

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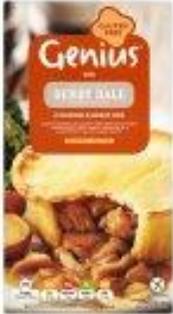
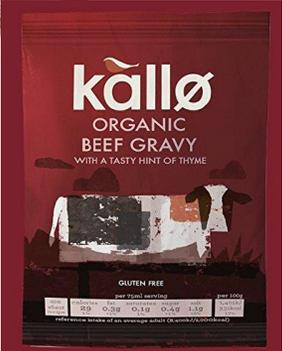
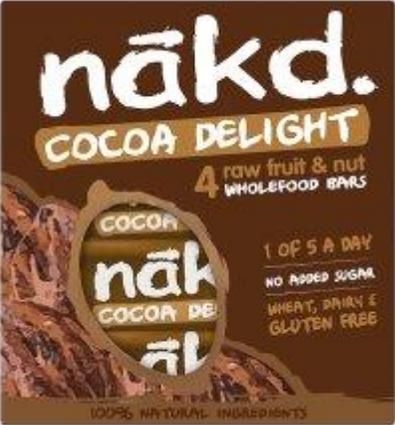
## WHEAT-CONTAINING:

- Bread, breadcrumbs, wheat flour, wheat starch, wheat germ, wheat protein, bran, rusk, cake, pastry, batter, biscuits
- Cereal binder, raising agents
- Hydrolysed vegetable proteins, e.g. soya sauce
- Lagers, beer and ale (check)

## SOME NATURALLY WF FOODS:

- Corn, maize, cornflour, barley, rye, oats, oatmeal
- Buckwheat, arrowroot, gram flour, tapioca, sago
- Rice, rice flour

# Examples of manufactured WF products



# Food that contain **gluten** and naturally GF foods

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## **GLUTEN-CONTAINING:**

### **Wheat**

- Liquorice
- Lagers
- Soya sauce
- Batter

### **Barley**

- Barley malt extract
- Barley waters and squash
- Malted milk drinks
- Ales, beers, stouts

### **Rye and Oats**

### **Spelt and Kamut (Khorasan wheat)**

## **SOME NATURALLY GF FOODS:**

- Corn, maize, cornflour, buckwheat, arrowroot, gram flour, tapioca, sago, quinoa
- Rice, rice flour, potato flour, gelatine
- Jelly, liquorice root
- Cocoa, coffee, tea, ginger beer, squash
- Cider, liqueurs, port, sherry, spirits, wine
- (glucose syrups derived from wheat or barley, incl. dextrose)
- (wheat based maltodextrins)
- (distilled ingredients made from cereals that contain gluten, e.g. alcoholic spirits)

# Manufactured GF foods



## MANUFACTURED GF FOODS:

GF:

- Batters, breadcrumbs, cakes, biscuits, bread, pastry, wafers, etc.
- Bread mixes, flour
- Oats
- Beers and lagers

## GF FOOD LABELLING:

Foods labelled as GF have to have  $\leq 20$  ppm (Codex Alimentarius Standard, 2008)

Codex wheat starch:

- Manufactured wheat starch that has been processed to reduce the level of gluten to a level within the Codex standard
- Improves quality and texture
- **Products which contain Codex wheat starch are not WF**

# Some examples of manufactured GF products



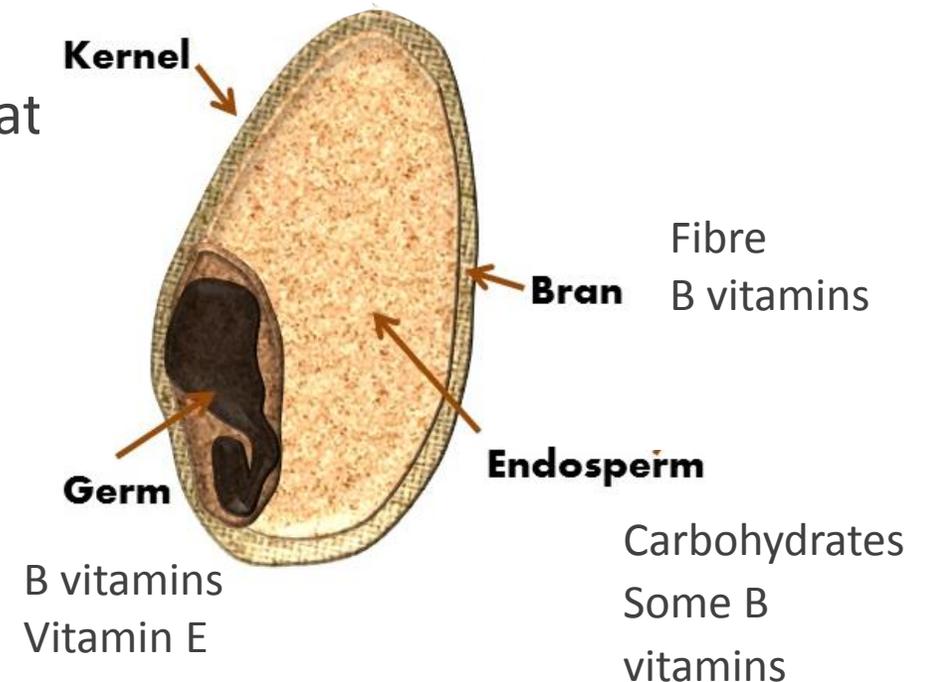


Nutritional implications of removing gluten and wheat from the diet:



### Nutrients at risk:

- UK wheat flours are fortified iron, B vitamins and calcium
- Wholemeal versions are exempt (FSA, 1998)
- Dietary fibre
- Potentially higher fat and higher sugar products



Cross  
contamination



**Staff training!**

In small groups, discuss potential sources of cross contamination for your area of food and/or drink production?

# Food labelling for allergens in general:

Ingredients from a packet of sausages showing ingredients in descending order



## General rules:

- Labelling should highlight food allergens contained: e.g. skimmed **milk** powder, whey (**milk**), lactose (**milk**), **rusk**, **wheat flour**
- Above is required where foods are sold directly to customers or to mass caterers without packaging
- Allergen information must be provided for non-prepacked foods in written or oral formats with clear signposting to where consumers can obtain this information

(Annex II and Commission Delegated Regulation (EU) No. 78/2014 amending Annex II to Regulation (EU) No 1169/2011) (FSA)

# Labelling for GF foods



Guidance document:  
<https://www.food.gov.uk/sites/default/files/gluten-guidance.pdf>

## Can use terms:



- **'Gluten-free'**: 20 parts per million of gluten or less
- **'Very low gluten'**: 21 to 100 parts per million of gluten, but this can only be applied to foods with a cereal ingredient that has been processed to remove the gluten
- **'Suitable for people intolerant to gluten'** or **'suitable for coeliacs'**



## Cannot use terms:

- **'No gluten containing ingredients'** or similar factual statements  
(Regulation (EU) 828/ 2014) (FSA, 2016)

## May contain statements:

- May contain traces of gluten
- Made on a line handling wheat
- Made in a factory also handling wheat
- Not suitable for people with coeliac disease/a wheat allergy due to manufacturing methods



# Gluten-free product certification

- Symbol can reassure customers
- Used nationally and internationally by Coeliac organisations (incl. Coeliac UK)
- Three categories of certification: UK, Europe and Global
- Require product testing at least once annually using a UKAS or equivalently certified lab
- European cert. also requires annual audit of production facilities



**For further information on cross grain symbol product certification:** <https://www.coeliac.org.uk/food-industry-professionals/the-crossed-grain-symbol/>

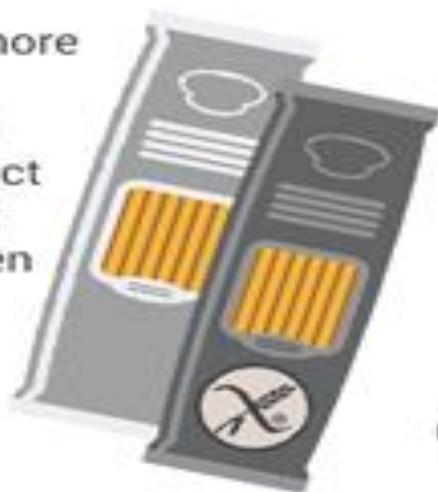
**For a list of UKAS-accredited testing labs:**

[https://www.ukas.com/browes\\_accredited\\_organisations/?catshow=no&org\\_type=Testing%20Labs](https://www.ukas.com/browes_accredited_organisations/?catshow=no&org_type=Testing%20Labs)



**59%** rely on the Crossed Grain symbol when making purchasing decisions.

**77%** are more likely to buy a Crossed Grain certified product than a product that hasn't been certified.



**82%** prefer to see the symbol on packaging to reading the ingredients label.

**95%** would like all gluten free products to have the Crossed Grain symbol on their packaging.

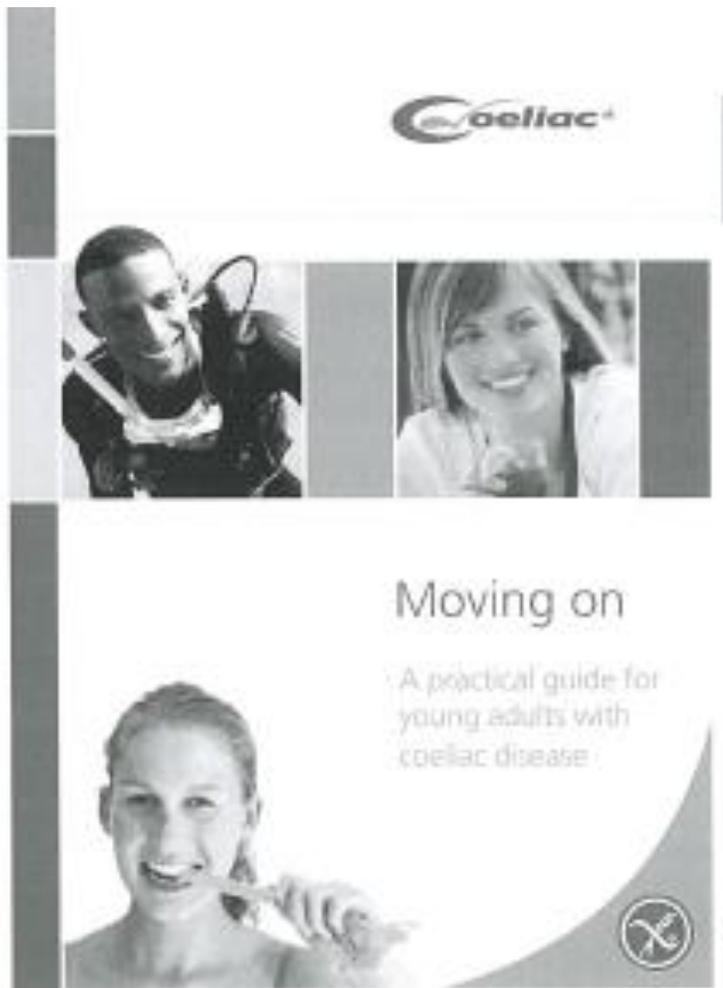


**92%** said what they liked best about the Crossed Grain symbol is that they can immediately see the product is safe for them to eat.



**87%** find the Crossed Grain symbol most useful when the products aren't in the Free From aisle.





**Takeaways**

A lot of takeaway food is perfectly safe for people with coeliac disease. However, you do need to be careful what you order and be aware of the risk of cross contamination in some takeaway restaurants.

**Fish and chips**



Avoid chips if they are cooked in the same oil as battered fish. Chips or fish with a gluten-free batter cooked in the same oil as battered products taking gluten are not gluten-free. Even if the chips appear to be cooked separately, be aware that the oil is often reused by the shop so they have previously been used to cook battered fish. Removing batter from fish does NOT make it safe to eat as it will already have been contaminated with gluten. Some shops have designated gluten-free fryers or have a dedicated gluten-free fryer so it's worth asking.

**Chinese**



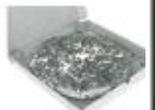
Avoid wheat noodles and soy sauce. The use of cornstarch. Dishes that contain gluten are cooked in the same pan as your food. Rice is gluten-free and rice noodles are a great alternative to wheat noodles, so ask if these are available. Remember that meat, fish and vegetables are naturally gluten-free but check that they are not cooked in soy sauce or oil that has been used to fry gluten-containing foods such as spring rolls.

**Indian**



Avoid breads. Pappadoms are usually made with rice and lentil flour. Make sure these are cooked in oil that has not been used to cook gluten-containing foods.

**Pizza**



**Fast food**



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**Advice on food allergen labelling**

How to buy food safely when you have a food allergy or intolerance



Updated in November 2010

- Food shopping
- Prescriptions
- Electronic Food and Drink Directory
- Cooking and baking
- Recipe Database
- Eating out**
- World cuisines
- Takeaways
- GF accredited venues
- Venue Guide
- Gluten Free Food Checker app
- Gluten-free on the Move app



# Other useful information

# Questions?

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