

Chapter 5: Food allergies, intolerances and other hypersensitivities

Introduction

'Food hypersensitivity' is a term that refers to a bad or unpleasant physical reaction which occurs as a result of consuming a particular food. There are different types of food hypersensitivity including a food allergy, food intolerance and coeliac disease ([footnote 1](#)).

A **food allergy** occurs when the immune system (the body's defence) mistakes the proteins in food as a threat. Symptoms of a food allergy can vary from mild symptoms to very serious symptoms, and can include itching, hives, vomiting, swollen eyes and airways, or anaphylaxis which can be life threatening.

Food intolerance is difficulty in digesting specific foods which causes unpleasant reactions such as stomach pain, bloating, diarrhoea, skin rashes or itching. Food intolerance is not an immune condition and is not life threatening.

Coeliac disease is an autoimmune condition caused by gluten, a protein found in wheat, barley and rye and products using these as ingredients. The immune system attacks the small intestine which damages the gut and reduces the ability to absorb nutrients. Symptoms of coeliac disease can include diarrhoea, abdominal pain and bloating.

The FSA is responsible for allergen labelling and providing guidance to people with food hypersensitivities. [By law](#), food businesses in the UK must inform customers if they use any of the 14 most potent and prevalent allergens ([footnote 2](#)) in the food and drink they provide.

To help consumers make safe and informed choices, food businesses can voluntarily provide information about the unintentional presence of 14 most potent and prevalent allergens, for example 'may contain' or 'produced in a factory with'. This is called [precautionary allergen labelling \(PAL\)](#). PAL information can be provided verbally or in writing but should only be provided where there is an unavoidable risk of allergen cross-contamination that cannot be sufficiently controlled through risk management actions.

This chapter provides an overview of respondents' understanding of food allergies and intolerances, the self-reported prevalence and diagnosis of food hypersensitivities, and experiences of eating out or ordering a takeaway among those with a hypersensitivity.

Prevalence and diagnosis of food hypersensitivities

Around a quarter (24%) of respondents reported that they suffer from a bad or unpleasant physical reaction after consuming certain foods or avoid certain foods because of the bad or unpleasant physical reaction they might cause ([footnote 3](#)).

The prevalence of bad or unpleasant physical reactions to food varied between different groups of people in the following ways:

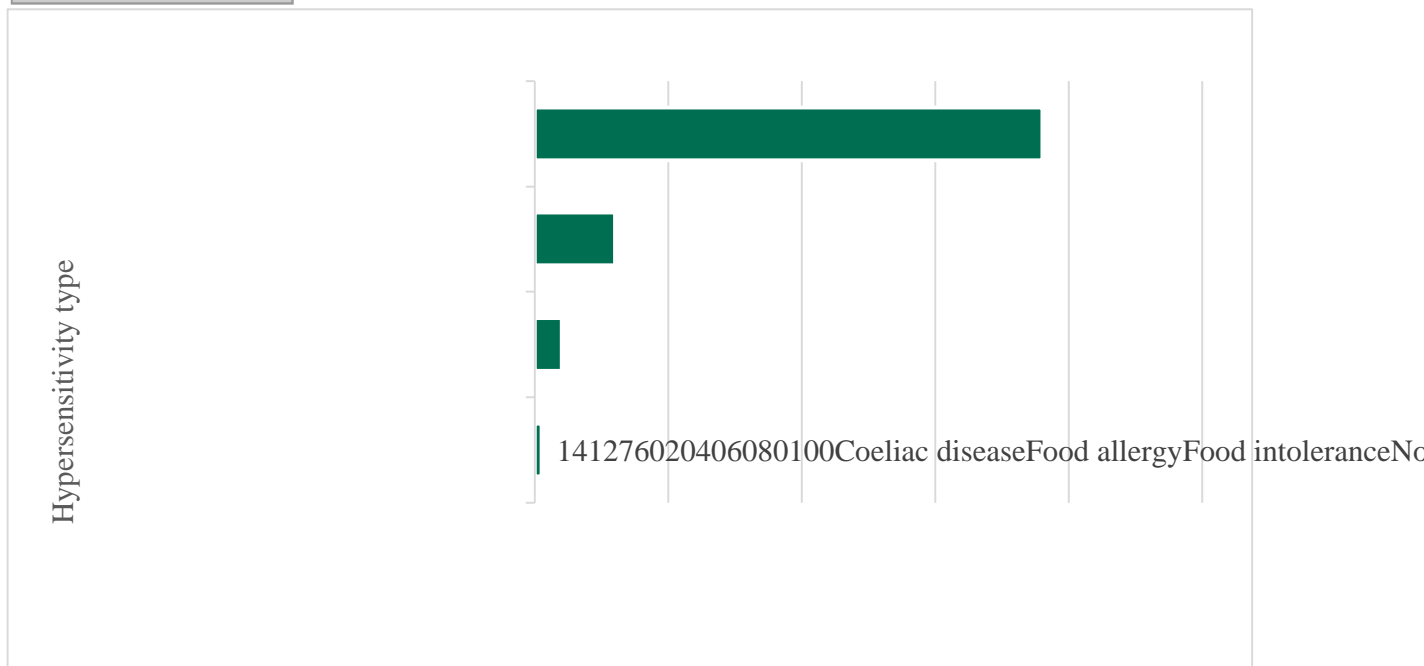
- gender: women (29%) were more likely to report a bad or unpleasant physical reaction to food than men (17%)

- NS-SEC: respondents who were full-time students (30%) or long-term unemployed and/or had never worked (29%) were more likely to report a bad or unpleasant physical reaction to food, compared to respondents in semi-routine and routine occupations (16%)
- food insecurity: respondents who had very low food security (32%) were more likely to report a bad or unpleasant physical reaction to food, compared to respondents who had high (22%) or low (22%) food security.

Figure 16: Prevalence of different types of food hypersensitivity

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Hypersensitivity type	Percentage of respondents
Coeliac disease	1
Food allergy	4
Food intolerance	12
No unpleasant reaction to food	76

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Source: Food and You 2: Wave 4

Most respondents (76%) reported that they did not have a food hypersensitivity. Just over 1 in 10 (12%) respondents reported that they had a food intolerance, 4% reported having a food allergy, and 1% reported having coeliac disease (Figure 16) [\(footnote 4\)](#).

Diagnosis of food hypersensitivities

Respondents who reported having a bad or unpleasant reaction were asked how they had found out about their condition. More than 2 in 10 (22%) respondents who had a food hypersensitivity had been diagnosed by an NHS or private medical practitioner and 4% had been diagnosed by alternative or complementary therapist but not NHS/private medical practitioner. However, 10% had used other methods and most respondents (74%) had not received any diagnosis [\(footnote 5\)](#)

Around a third (34%) of respondents who reported having a food allergy had been diagnosed by an NHS or private medical practitioner compared to 17% of those with a food intolerance. Over three-quarters (78%) of respondents who reported a food intolerance had noticed that a food causes them problems, but not been formally diagnosed with a specific condition, compared to 64% of those with an allergy.

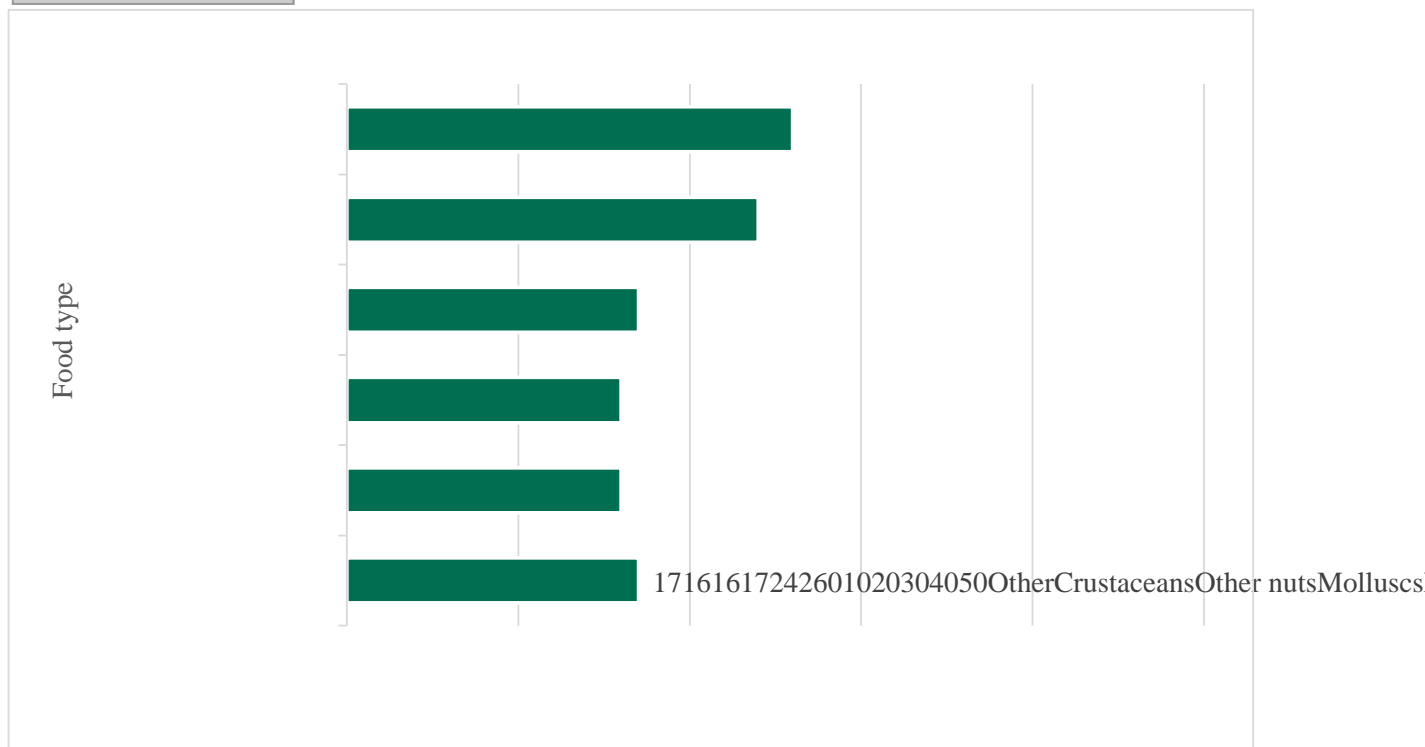
Foods most likely to cause unpleasant reactions

Respondents who reported that they suffered from a bad or unpleasant physical reaction after consuming certain foods or avoided certain foods because of the bad or unpleasant physical reaction it might cause were asked to which foods they experienced reactions.

Figure 17: The five food groups most likely to cause allergic reactions

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Food type	Percentage of respondents
Other	17
Crustaceans	16
Other nuts	16
Molluscs	17
Fruit	24
Peanuts	26

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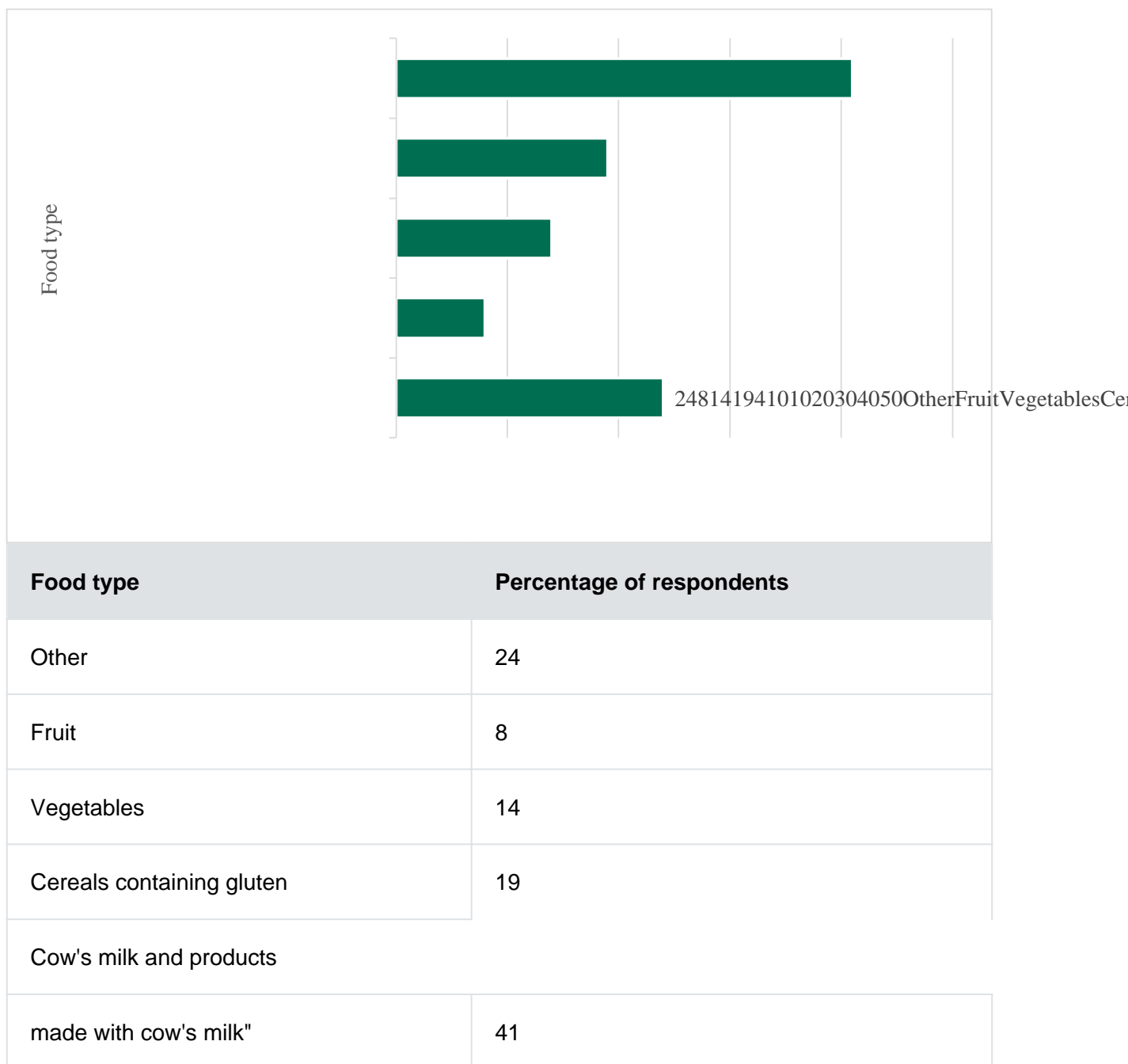
Source: Food and You 2: Wave 4

Amongst the respondents who reported having a food allergy, the most common foods reported as causing a reaction were peanuts (26%) and fruit (24%). Other common allergens were molluscs (for example, mussels, snails, squid) (17%), other nuts (for example almonds, hazelnuts, walnuts) (16%) and crustaceans, (for example, crabs, lobster, prawns) (16%). However, almost 2 in 10 (17%) respondents reported an allergy to a food which was not in the given list, which included the 14 most potent and prevalent allergens (Figure 17) ([footnote 6](#)).

Figure 18: The five food groups most likely to cause a food intolerance

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Source: Food and You 2: Wave 4

Amongst the respondents who reported having a food intolerance, the most common foods reported as causing intolerance were cow's milk and products made with cow's milk (41%) and cereals containing gluten (19%). Around a quarter (24%) reported an intolerance to other foods, which were not listed in the questionnaire (Figure 18) [\(footnote 7\)](#).

Eating out with a food hypersensitivity

The FSA provides guidance for food businesses on providing allergen information. Food businesses in the retail and catering sector are required [by law](#) to provide allergen information

and to follow labelling rules. The type of allergen information which must be provided depends on the type of food business. However, all food business operators must provide allergen information for prepacked and non-prepacked food and drink. Foods which are pre-packed or pre-packed for direct sale (PPDS) are required to have a label with a full ingredients list with allergenic ingredients emphasised ([footnote 8](#)).

How often people checked allergen information in advance when eating somewhere new

Respondents who suffer from a bad or unpleasant physical reaction after consuming certain foods were asked how often, if at all, they checked in advance that information was available which would allow them to identify food that might cause them a bad or unpleasant reaction when they ate out or ordered a takeaway from somewhere new.

Around 2 in 10 (21%) respondents always checked in advance that information was available which would allow them to identify food that might cause them a bad or unpleasant reaction, and around 4 in 10 (42%) respondents checked this information was available less often (for example, most of the time or less often). However, over a third (37%) of respondents never checked in advance that information was available which would allow them to identify food that might cause them a bad or unpleasant reaction ([footnote 9](#)).

Availability and confidence in allergen information when eating out or ordering takeaways

Respondents who suffer from a bad or unpleasant physical reaction after consuming certain foods were asked how often information which allowed them to identify food that might cause them a bad or unpleasant reaction was readily available when eating out or buying food.

More than 1 in 10 (13%) respondents reported that this information was always readily available and around two-thirds (68%) of respondents reported that this information was available less often (for example, most of the time or less often). However, 9% of respondents reported that this information was never readily available when they ate out or bought food to take away ([footnote 10](#)).

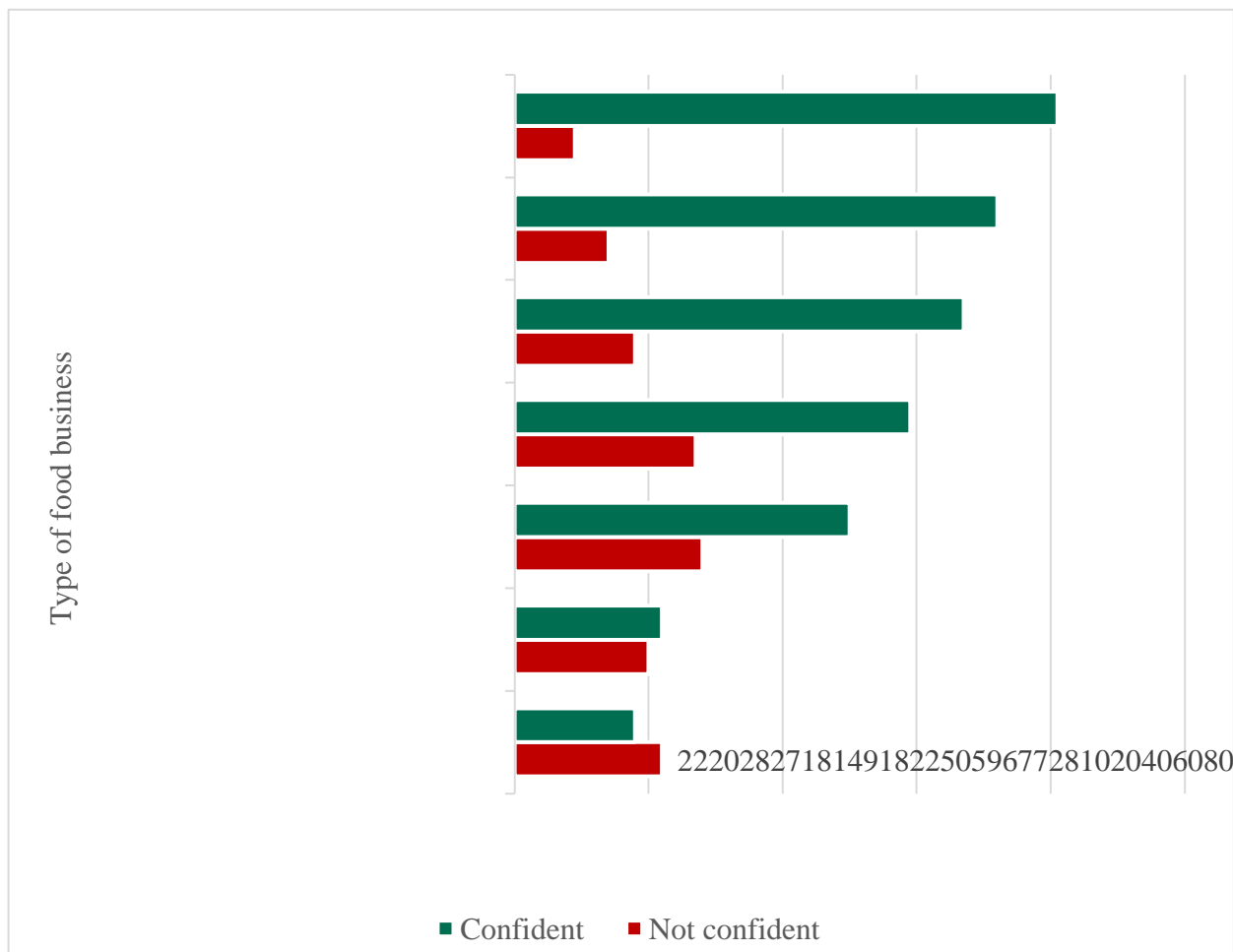
Respondents were asked how often they asked a member of staff for more information when it is not readily available. Around 2 in 10 (22%) respondents reported that they always asked staff for more information, whilst 43% did this less often (i.e., most of the time or less often), and 32% never asked staff for more information ([footnote 11](#)).

Respondents were asked how comfortable they felt asking a member of staff for more information about food that might cause them a bad or unpleasant physical reaction. Around 7 in 10 (72%) of respondents reported that they were comfortable (for example, very comfortable or fairly comfortable) asking staff for more information, however 17% of respondents reported they were not comfortable doing this (for example, not very comfortable or not at all comfortable) ([footnote 12](#)).

Figure 19: Confidence of respondents with a food hypersensitivity in information provided by food businesses

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Type of food business	Not confident	Confident
Facebook Marketplace	22	18
Food-sharing app	20	22
Takeaway (via online delivery company)	28	50
Takeaway (ordered directly)	27	59
Pub or bar	18	67
Caf?, coffee or sandwich shop	14	72
Restaurant	9	81

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Source Food and You 2 Wave 4

Respondents who had a food hypersensitivity were asked how confident they were that the information provided at different types of food businesses would allow them to identify and avoid food that might cause a bad or unpleasant physical reaction. Respondents were more likely to report confidence (i.e., very or fairly confident) in the information provided by restaurants (81%), cafés, coffee or sandwich shops (72%), and pubs or bars (67%) compared to the information provided by takeaways when ordering directly from a takeaway shop or restaurant (59%) or when ordering through an online ordering and delivery company (for example, JustEat, Deliveroo, UberEats) (50%). Respondents were least likely to report confidence in the information provided by food-sharing apps (for example, Olio or Too Good To Go) (22%) or Facebook Marketplace (18%) (Figure 19) ([footnote 13](#)).

Most respondents were confident (i.e., very confident or fairly confident) that the information provided in writing (83%) or verbally by a member of staff (69%) would allow them to identify and avoid food that might cause a bad or unpleasant physical reaction ([footnote 14](#)).

1. [FSA Explains: Food hypersensitivities. Overview: Food Allergy, NHS. Food Intolerance, NHS. Overview: Coeliac disease, NHS.](#)
2. Allergens: celery, cereals containing gluten (such as barley and oats), crustaceans (such as prawns, crabs and lobsters), eggs, fish, lupin, milk, molluscs (such as mussels and oysters), mustard, peanuts, sesame, soybeans, sulphur dioxide and sulphites and tree nuts (such as almonds, hazelnuts, walnuts, Brazil nuts, cashews, pecans, pistachios and macadamia nuts).
3. Question: Do you suffer from a bad or unpleasant physical reaction after consuming certain foods, or avoid certain foods because of the bad or unpleasant physical reaction they might cause? Responses: Yes, No, Don't know, Prefer not to say. Base= 5796, all respondents.
4. Question/ Responses: Derived variable, see data tables (REACTYPE_1 to REACTYPE_18 combined NET) and Technical Report. Base= 5796, all respondents.
5. Question: How did you find out about your problem with these foods? Responses: I have been diagnosed by an NHS or private medical practitioner (e.g. GP, dietician, allergy specialist in a hospital or clinic), I have been diagnosed by an alternative or complementary therapist (e.g. homeopath, reflexologist, online or walk-in allergy testing service), I have noticed that this food causes me problems, but I have not been formally diagnosed with a specific condition, Other. Base= 1322, all respondents who suffer from a bad or unpleasant physical reaction after consuming certain foods, or avoid certain foods because of the bad or unpleasant physical reaction they might cause.
6. Questions/Respondents: Derived variable, see data tables (REACSOURCAL) and Technical Report. Base= 154.
7. Questions/Respondents: Derived variable, see data tables (REACSOURCIN) and Technical Report. Base= 460.
8. [Allergen guidance for food businesses, FSA.](#)

9. Question: When eating out or ordering food from somewhere new, how often, if at all, do you check in advance that information is available allowing you to identify food that might cause you a bad or unpleasant physical reaction? Responses: Always, Most of the time, About half of the time, Occasionally, Never, Don't know. Base= 1246, all online respondents who eat out or buy food to take away and have a food reaction, and all postal respondents, who suffer from a bad or unpleasant physical reaction after consuming certain foods, or avoid certain foods because of the bad or unpleasant physical reaction they might cause who eat out or order takeaways.
10. Question: When eating out or buying food to take out, how often, if at all, is the information you need to help you identify food that might cause you a bad or unpleasant physical reaction readily available? Responses: Always, Most of the time, About half of the time, Occasionally, Never, Don't know. Base= 1244, online respondents who eat out or buy food to take away and have a food reaction, and all postal respondents, who suffer from a bad or unpleasant physical reaction.
11. Question: When information is not readily available, how often do you ask a member of staff for more information? Responses: Always, Most of the time, About half of the time, Occasionally, Never, I don't need to ask because the information is always readily available, Don't know. Base= 1172, all online respondents who eat out or buy food to take away and have a food reaction, and all postal respondents, who suffer from a bad or unpleasant physical reaction after consuming certain foods, or avoid certain foods because of the bad or unpleasant physical reaction they might cause, excluding those who say 'I don't need to ask because the information is always readily available'.
12. Question: How comfortable do you feel asking a member of staff for more information about food that might cause you a bad or unpleasant physical reaction? Responses: Very comfortable, Fairly comfortable, Not very comfortable, Not at all comfortable, It varies from place to place, Don't know. Base = 1244, all online respondents who eat out or buy food to take away and have a food reaction, and all postal respondents, who suffer from a bad or unpleasant physical reaction after consuming certain foods, or avoid certain foods because of the bad or unpleasant physical reaction they might cause.
13. Question: How confident are you about the information provided when eating food...A) from a café / coffee shop / sandwich shop. B) In a pub / bar. C) From a takeaway, ordered directly from a takeaway shop or restaurant. D) From a takeaway, ordered through an online ordering and delivery company (e.g. JustEat, Deliveroo, UberEats). E) In a restaurant. F) Ordered through Facebook Marketplace (e.g. pre-prepared food or meals) G) Ordered through a food-sharing app (e.g. Olio or Too Good To Go). Responses: Very confident, Fairly confident, Not very confident, Not at all confident, It varies from place to place, Don't know. Base A= 1088, B= 998, C= 1098, D= 856, E= 1110, F= 500, G= 531, all online respondents who eat food A/B/C/D/E/F/G, respondents who eat food in each situation, and suffer from a bad or unpleasant physical reaction after consuming certain foods, or avoid certain foods because of the bad or unpleasant physical reaction they might cause.
14. Question: How confident are you that the information provided will allow you to identify and avoid food that might cause you a bad or unpleasant physical reaction?... A) when the information is provided in writing (for example, on the main menu or a separate allergen menu). B) when the information is provided verbally by a member of staff. Responses: Very

confident, Fairly confident, Not very confident, Not at all confident, It varies from place to place, Don't know. Base= 1244, all online respondents who eat out or buy food to take away, and all respondents who answered the paper questionnaire, who suffer from a bad or unpleasant physical reaction after consuming certain foods or avoids certain foods because of the bad or unpleasant physical reaction they might cause.