



the **skills** network

Unit 1 and 2

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Level 2 Certificate in  
Allergy Awareness

Featuring interactive content



## Instructions for using the EQUAL App

At The Skills Network, we are enabling you to access additional video content through Augmented Reality (AR) technology. By simply scanning areas of this book, you will have access to a range of interactive bonus content, from a Virtual Tutor to case study videos.

### Instructions for use



#### STEP 1:

To get started, you will need to download the EQUAL App from the AppStore or PlayStore and follow the simple tutorial instructions on how to activate your course.



#### STEP 2:

Look out for this icon in your learning materials.



#### STEP 3:

Whenever you see the icon, click on the 'lens' in the bottom bar of the app, scan the icon or the image the icon is placed on, and bring your bonus content to life.

Utilising the app to access additional content is not mandatory to successful completion of the course, but allows for an alternative way to access content from within the workbook.



*Don't forget to point your lens at this icon!*

#### Scan for your Virtual Tutor

Scan this icon to meet your Virtual Tutor.

### Disclaimer:

This resource uses real life case studies where specifically stated and referenced. All other references to individuals, groups and companies contained within these resources are fictitious.

## Level 2 Certificate in Allergy Awareness

### Welcome to this Level 2 Certificate in Allergy Awareness.

We hope you find all of the information contained in this resource pack interesting and informative. This learning resource and the assessment questions have been approved by TQUK as a great way to meet the learning outcomes for this qualification. (A complete list of the learning outcomes can be found at the back of this workbook.)

This course is made up of **two** books. This is **book one**, which contains **two** units:

**Unit 1: Understanding allergens, allergies and intolerances**

**Unit 2: Food labelling and packaging**



As you start to read through each page you will be able to make notes and comments on things you have learnt or may want to revisit at a later stage. At the end of each section you will be asked to answer the relevant assessment questions.

Once you have answered the questions, go to the next section and continue studying until all of the assessment questions have been completed.

Please make sure that you set aside enough time to read each section carefully, making notes and completing all of the activities. This will allow you to gain a better understanding of the subject content, and will help you to answer all of the assessment questions accurately.

**Good luck with your study. Now let's begin!**

## Key Skill Activities

Throughout this book, you will be asked to complete activities to help with your English and maths skills and to allow you to stretch and challenge yourself in relation to understanding allergens, allergies and intolerances. These activities are designed to encourage your development throughout the course and to allow you to extend your key knowledge as you progress through the course.



### Key Skill: English

Whenever you see this icon, there will be an activity which encourages you to demonstrate your English skills. Completing these activities will allow you to practice literacy components and may stretch you beyond your existing skills which will then improve your general abilities.



### Key Skill: Maths

Whenever you see this icon, there will be an activity which encourages you to demonstrate your maths skills. These activities will help you with your personal and professional development. Completing these activities will allow you to practice mathematical components and may stretch you beyond your existing skills which will then improve your general abilities.



### Key Skill: Stretch and challenge yourself

Whenever you see this icon, there will be an activity which encourages you to stretch and challenge yourself in relation to understanding allergens, allergies and intolerances. These activities will help you with your personal and professional development and allow you to think about certain situations and scenarios in more detail.



### Key Skill: Behaviours and attitudes

Whenever you see this icon, there will be an activity which encourages you to consider your own behaviours and attitudes in relation to allergens, allergies and intolerances. These activities will help you with your personal and professional development and will help you to evaluate the skills you already have, and think about how you approach various situations in the workplace.



### Key Fact: British Values

You will also come across this British Values icon throughout the course. Whenever you see this, it represents an area of learning that emphasises British Values. Your understanding of these values is crucial as you look to grow and develop as an employee and member of your wider community.

## **Unit 1: Understanding allergens, allergies and intolerances**

**Welcome to Unit 1.**

This unit has **three** sections. These are:

**Section 1: Understand food allergens, allergies and intolerances**

**Section 2: Know the methods for allergy diagnosis and treatment**

**Section 3: Know the methods for intolerance diagnosis and treatment**

### **Section 1: Understand food allergens, allergies and intolerances**

This section will explore the following:

- What is meant by the term 'allergy'
- What food allergens are
- What a food intolerance is
- Diseases that can be caused by specific food types
- The differences between food allergies and intolerances
- Prevalence rates for different types of food allergies and intolerances
- How allergies can develop
- The most common airborne allergens
- Cross-contact
- What immunotherapy (desensitisation) is
- The main 14 food allergens.



## What do you know?

Before you start this unit, it is important that you take some time to think about what you already know in relation to understanding allergens, allergies and intolerances. Please take some time to answer the questions below and rate your confidence in each topic area.

Use the following key to complete your answers to questions 1 to 3. You can then write out your answer in full for question 4.

At the end of the unit, you will be asked to take another look at these questions so that you can rate your confidence again and identify how you have progressed throughout the unit and how your knowledge and awareness in each area has developed.

**1 – Not confident at all    2 – A little confident    3 – Confident  
4 – Very confident    5 – Confident enough to share my knowledge with others**

1.	How confident do you feel in your knowledge about allergens, allergies and intolerances?	
2.	How confident are you in your understanding of the methods for allergy diagnosis and treatment?	
3.	How confident do you feel in the methods for allergy diagnosis and treatment?	
4.	What are you hoping to learn in this unit?	

## What is meant by the term 'allergy'



### STOP AND THINK!

**Recent headlines about food allergies and changes to the law mean that you may have some awareness already about what a food allergy is.**

**Use the space below to note down your understanding and then compare it to the information that follows.**

An allergy in general is what happens when the body's immune system has an abnormal reaction to a substance that is normally harmless. Common allergies tend to be those, which come about in reaction to food, pollen, mites and dust.

The NHS defines a food allergy as follows:

"...when the body's immune system reacts unusually to specific foods."

**Source:** <https://www.nhs.uk/conditions/food-allergy/>

The British Nutrition Foundation defines a food allergy as follows:

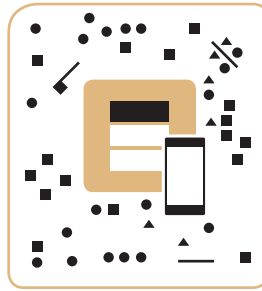
"...an inappropriate reaction by the body's immune system to the ingestion of a food."

**Source:** <https://www.nutrition.org.uk/nutritionscience/allergy/what-is-food-allergy-and-intolerance.html>



Together, it means that it is a type of allergy that occurs when the body's immune system reacts to a certain type of food. Allergies can be fatal, this is because they can cause the throat to close and the mouth to swell, meaning that the individual would not be able to breathe. In medical terms, this is referred to as 'anaphylaxis'.

Don't forget to point your lens at this icon!



### Scan for your Virtual Tutor

Scan the icon here to listen to a handy tip from your Virtual Tutor.

## R

### Further Research: Anaphylaxis

**Anaphylaxis will be discussed in more detail later on in the course, but you can familiarise yourself with what happens when someone experiences it, by reading the information provided by the NHS in the link below. Use the box below to make notes.**

***<https://www.nhs.uk/conditions/anaphylaxis/>***





## What food allergens are

Food allergens are naturally occurring proteins in foods or derivatives that cause an abnormal response by the body's immune system.

Almost all foods have the potential to cause an allergic reaction, if a person has become sensitised to them, and the strength of the reaction will be unique to the individual. For example, if a person has developed an allergy to peanuts, the reaction may vary from slight tingling sensations to swollen lips. In severe cases, it can also prove fatal.



### Definition

**'Sensitise' – a response to a stimulus.**

Knowing about food allergens and what food contains is a vital part in enabling people who live with food allergies to remain safe.



### Activity 1: Food allergens

**Examples of food allergens are given in more detail in the final part of this section. But, use the space below to see if you can identify at least five of the 14 most common types:**

1.

2.

3.

4.

5.

## What a food intolerance is

Food intolerance means that an individual has problems digesting certain types of food. This can lead to pain and discomfort when the specific food item has been eaten. Food intolerance does not include food poisoning, which is something different and caused by bacteria rather than difficulties with digestion.

Common sources of food intolerances include:

- Lactose, which is a sugar found in many dairy products
- Wheat
- Caffeine
- Histamine, which is found in Quorn, mushrooms and foods that have been cured or pickled
- Artificial food colours
- Gluten
- Eggs
- Seafood.


*Here's your first video. Point your lens at the whole image to unlock the video content!*



**R**

**Further Research: The Food Standards Agency**

**You can read more about food allergies and intolerances on the Food Standards Agency's website. This website also contains some very good information about the correct methods of preparing and storing food. This may be useful to you in both your personal and professional life. Make notes in the space below.**



**Are you using the Equal App?**

**Using the 'x' in the corner of your lens will exit camera mode and take you back into the app.**



## Diseases that can be caused by specific food types



### STOP AND THINK!

**Are you already aware of any diseases that can be caused by specific food types? Make a list below and then compare it to the information that follows.**



The table below gives an outline of some diseases which may be triggered by certain food types. However, it is important to keep in mind that most diseases are usually caused by more than one trigger, as their origins can be complex. For example, someone who lives with psoriasis may experience a flare up of symptoms due to eating certain foods and experiencing certain lifestyle factors such as stress.

Conditions	Foods that may cause it
Coeliac disease	Wheat, barley and rye.
Irritable bowel syndrome (IBS)	Any food high in fat, spicy foods, processed food, alcohol, carbonated drinks.
Crohn's disease	Alcohol, butter, carbonated drinks, coffee, tea, chocolate, corn, lentils, beans, nuts, seeds, raw fruit and vegetables, red meat, pork, spicy foods, whole grains, bran.
Eczema	Citrus fruits, dairy, eggs, gluten, soya, tomatoes, peanuts.
Psoriasis	Red meat, dairy, gluten, processed foods, alcohol.

**R**

### **Further Research: Conditions caused by specific food types**

**If you are unfamiliar with any of the conditions listed on the previous page, please use the link below to find out more about it. Use the space below to make your notes.**

**[www.nhs.uk](http://www.nhs.uk)**

## **The differences between food allergies and intolerances**

Physical reactions to some foods are common, but in most cases, these will be caused by intolerance rather than allergy. Food intolerance can cause some of the same signs and symptoms as an allergy, so it is unsurprising that people can often confuse the two.

However, an important difference between the two is that a true food allergy causes a person's immune system to react in a way that affects various different organs in the body. It can cause a range of symptoms, which, in some cases, can be severe or even life threatening. On the other hand, food intolerance symptoms are less severe and are usually only related to problems with digestion.

Individuals who live with food intolerances may be able to eat small amounts of the food that causes the intolerance without too much trouble. Whereas, someone with a food allergy will be very careful to completely avoid any food product, which contains the ingredient to which they are allergic.

Food allergy symptoms usually come about straight away. But, those associated with intolerances may only come on several hours later, or even the day after certain foods have been eaten.

Individuals who have food allergies may be recommended to carry an emergency piece of medical equipment called an EpiPen. This will give them a shot of adrenaline to stop the allergic reaction from continuing if the person inadvertently eats something that contains whatever the individual is allergic to. In contrast to this, individuals who have food intolerances will usually be recommended to take certain steps to aid the digestion of certain foods, or to treat the underlying condition that is causing the symptoms of the intolerance to flare up.



### Key Fact

**A food allergy and a food intolerance are not the same; an allergy may be fatal whereas an intolerance is not.**

## Prevalence rates for different types of food allergies and intolerances

A prevalence rate is the proportion of people within a population who have a particular disease. Prevalence rates are not always easy to determine. This is because some individuals will live with illnesses which they self-treat and are, therefore, not officially recorded. Also, some will live with illnesses and not realise that they are related to allergies and intolerances.

Prevalence rates for some types of food allergy and intolerance within the UK are as follows:

- Approximately, 2,000,000 people are living with a diagnosed food allergy
- Approximately, 600,000 people have Coeliac disease
- Approximately, 2% of the population lives with a peanut allergy
- Food intolerances are thought to affect about half of the population, but this is a figure that is difficult to prove.

**Source:** <https://www.food.gov.uk/sites/default/files/media/document/fsa170306.pdf>

Prevalence rates for other forms of allergy are not given in official statistics. This is because they are not reliable due to not enough information being known about them.



### Key Skill: Maths

**There are approximately 67 million people living in the United Kingdom. If 2% of them have a peanut allergy, how many people in the UK have an allergy to peanuts? Make notes in the space below.**

Check your answers at the end of this workbook.

## How allergies can develop

Allergies occur when an individual's immune system reacts to a foreign substance that enters their body. This may be pollen from plants or grass, a sting from a bee or wasp, or a food that would not normally cause a reaction in most people.

**i**

### Definition

**'Antibodies' – Substances which a person's body produces in order to destroy substances which carry disease.**

**Source: <https://www.collinsdictionary.com/dictionary/english/antibody>**

Once the foreign substance has entered the body, an allergic reaction occurs when the immune system produces antibodies which think that an allergen, such as a peanut, is harmful – even though it isn't. The body then reacts by inflaming the skin, sinuses, airways or digestive system.

An individual is not born with an allergy; they only develop when their immune system comes into contact with the allergen, whatever this may be. Although allergies are more likely to occur in children, an allergy can develop at any time and to anything. For example, in recent years, the warmer temperatures appear to be linked to an increase in hay fever symptoms in individuals who have never previously experienced this condition.

**Source: <https://www.telegraph.co.uk/health-fitness/body/many-people-suddenly-suffering-hay-fever-middle-age/>**

**R**

### Further Research: The development of allergies

**Take a moment to watch the short animation in the link below that gives a simple overview to show how the body's immune system reacts when an allergy develops. Make notes in the space below.**

**[https://www.youtube.com/watch?v=OTz\\_2AJJh6o](https://www.youtube.com/watch?v=OTz_2AJJh6o)**

## The most common airborne allergens

An airborne allergen is one that is present in the air, both indoors and outdoors. Airborne allergens can be the cause of many different forms of allergy, such as allergies to pets and to pollen, both of which can affect someone throughout their lifespan.

The table below outlines some of the most common airborne allergens that may be found both indoors and outdoors:

Type of allergen	What the allergen consists of
Dust and dust mites	Dust is created by the shedding of dead skin, animal dander, sand, and insect waste. It is thought to be the biggest cause of long-term symptoms in people who live with allergies. Dust mites feed off dust, and people who have allergies to dust will also be allergic to dust mites as both are present at the same time.
Pollen	In spring and summer time, plants and trees pollinate and release pollen which saturates the air outside and can then also enter inside. Once inside, they become trapped and so individuals who live with hay fever, for example, find that they experience symptoms both indoors and outdoors.
Pet hair and skin (pet 'dander')	Animals naturally lose skin and hair, just like humans do. The skin and hair then enter the air and cause allergic reactions. This is most commonly in the case of cats and dogs, but other animals can cause this reaction as well.
Mould	Mould is usually found in places that are dark and damp. It produces microscopic spores that can easily move from place to place. When inhaled, mould can cause serious allergic reactions and can be a cause of death if the mould is dangerous and is inhaled over a long period of time.
Smoke	Smoke that causes allergic reactions will likely come from cigarettes, cigars and pipes. It can cause allergic reactions in spaces where there is no longer fresh smoke but where smoke was previously present.
Volatile Organic Compounds – VOCs (for example cleaning products and paint)	Volatile Organic Compounds (VOCs) are found in many different items within a building. They may be in cleaning products, paints, glue and air fresheners. Like smoke, individuals may have a reaction to VOCs even after they have been used. For example, if an air freshener has been sprayed some time before an individual enters a room.





**Key Skill: Stretch and challenge yourself**


**Take a look around your surroundings, can you spot any potential airborne allergens where you are? Make notes in the space below.**



Scan the image



**Are you using the Equal App?**

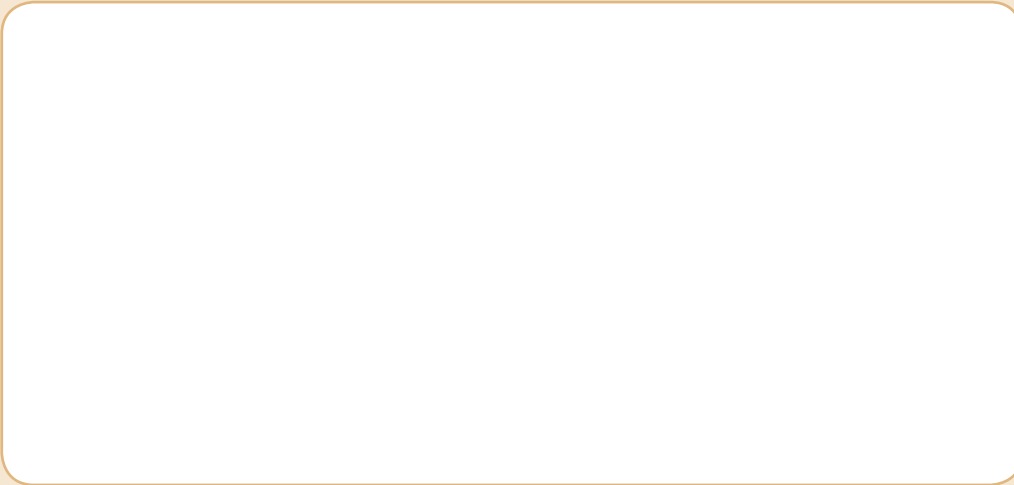
**Pressing the refresh icon  in the top right hand corner of your lens will allow you to scan another image and icon without exiting camera mode.**

**A**

### Activity 2: Airborne allergens

**Choose one of the airborne allergens and carry out some research to find out the impact that it can have on an individual who is allergic to it.**

**For example, if someone is allergic to smoke, what symptoms would you expect them to have if they were present in a smoke-filled room for a few minutes? Make notes in the space below.**



**i**

### Key Fact

**Airborne allergens are those which are present in the air, both indoors and outdoors. They can be the cause of a range of allergies in individuals, at any time in their life.**

## Cross-contact

Cross-contact occurs when one food comes into contact with another food. The proteins that are contained within them are then given the opportunity to mix together.

Once this mix has taken place, each of the foods then contain small traces of the other. These are usually so small that they cannot be seen by the naked eye.

However, even the smallest amount of a food protein is enough to cause an allergic reaction in an individual who is allergic to that particular protein.

Avoiding cross-contact can prevent allergic reactions from occurring, and so anyone who deals with the storage, preparation, cooking and serving of food, must be aware of the importance of avoiding cross-contact wherever this is possible.

**A**

### **Activity 3: Your own home**

**Have a look around your own kitchen and identify any areas where there is a possibility that cross-contact might occur. How are your foods stored? How do you prepare them? Use the space below to note down your findings.**



### **Key Skill: Behaviour and attitudes**

**Now you know where cross-contact could occur, what can you now do differently to prevent this? Think about your own name or your workplace and make notes in the space below.**

## What immunotherapy (desensitisation) is

Immunotherapy treatment involves being given occasional small doses of the allergen which causes an allergic reaction. This is usually done over the course of several years. The dosage will be gradually increased until an individual's maximum dose is reached, and then this dosage is given on a regular basis. The dosage may be given as an injection, or as drops or tablets which are placed under the tongue.

If the individual receives immunotherapy by injection, they will need to visit a special clinic and be supervised by a doctor, whereas the drops or tablets can be self-administered.

The aim of immunotherapy is to enable the individual's body to get used to the allergen so that the immune system does not react to it so severely. It will never be able to cure an allergy, but it may make reactions milder and may mean that an individual does not have to take as much medication to keep allergy symptoms under control.

Immunotherapy is thought to be most useful when treating allergies caused by:

- Pollen
- Dust mites
- Wasp and bee venom.



## The main 14 food allergens

According to the Food Standards Agency, the following 14 food allergens are the ones that are most likely to cause allergic reactions and must be declared by food businesses' if they are an ingredient in the foods and drinks that they provide:

- Celery
- Cereals containing gluten, such as wheat and barley
- Eggs
- Fish
- Lupin (a form of bean)
- Milk
- Molluscs (like mussels and oysters)
- Mustard
- Tree nuts, such as almonds, walnuts and cashews
- Peanuts
- Sesame seeds
- Soya beans
- Sulphur dioxide and sulphites (if they are at a concentration of more than ten parts per million.)
- Crustaceans.



**A**

#### **Activity 4: Allergens in foods**

Choose three of the allergens listed on the previous page and try to find one or two food items that may contain them. An example is given in the box. Make notes in the space below.

*Mustard – Found in sauces, baby foods, salad dressings, processed meats and soups.*



#### **Key Skill: Stretch and challenge yourself**

**What's your favourite meal? Write it down, then make a list of all the allergens it contains. If you are unsure, try to think of each individual ingredient it contains. You can check to see if you missed any by doing a quick internet search. Make your notes in the space below.**