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Food Allergens Management

A joint award with the Royal Environmental Health Institute of Scotland (REHIS)

A matter of life or death

Presentation on behalf of the Sea Fish Industry Authority

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Introduction

Course Presenters

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Breaks

Overview

The course will consider allergens as another form of food safety hazard and will explore how the hazard can be controlled by means of pre-requisites, policies and other HACCP-style controls.

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Course content

Introduction
1. Understanding Allergens
2. Legislation/Local Authority Inspections
3. The 14 Recognised Allergens
4. Allergens in HACCP
5. Allergen Control Plan
6. The Importance of Supplier Approval & Purchase Specifications
7. Preventing Cross Contamination – Delivery & Intake
8. Preventing Cross Contamination – Storage
9. New Product Development & Introduction of New Allergens
10. Preventing Cross Contamination – Production
11. Preventing Cross Contamination – Cleaning
12. Preventing Cross Contamination – Engineering
13. Preventing Cross Contamination – Food Service
14. Preventing Cross Contamination – Staff Facilities & Canteen
15. Managing the Allergens List
16. Training
17. Allergen Claims
18. Importance of Traceability
19. Visitors
20. If it all goes wrong - recall

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Ice breaker

Are you or anyone you know of affected by a food allergy or intolerance?

How does this affect your/their life as a consumer?

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Food Standards Agency - Food hypersensitivity video

Food hypersensitivity video

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1. Understanding Allergens

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1. Understanding Allergens - Key Learnings

- The serious health implications and differences between an allergy, anaphylaxis, intolerance, coeliac disease
- Allergy statistics
- The moral responsibilities as a food business owner, manager or food handler
- Food Standards Agency (FSA) food safety alerts
- Food industry failing to control allergens causing fatalities and a change in legislation.

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What is an allergy?

- An allergy is an attack on the immune system from a normally harmless substance.
- The immune system reacts to what it sees as a foreign or dangerous substance, so it then produces antibodies to defend the body resulting in an allergic reaction.
- Only a tiny amount of an allergen can cause a very severe reaction.
- Symptoms can be mild, such as a rash or itching, tingling of the mouth.
- Severe symptoms can cause the person to become floppy or unconscious and unable to breath leading to anaphylaxis.
- Without medical intervention the results can be fatal.

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What is 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.
- They can quickly progress to affect the pharynx, skin, respiratory tract and cardiovascular system, either individually or as a combination.
- Failure to seek medical intervention may lead to a fatality.

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Auto immune Injectors

- People susceptible to anaphylactic reactions need to carry life-saving adrenaline in case of an emergency.
- Most severe allergy sufferers will administer their own if they have sufficient time and warning, if not you can do it.
- They can be administered by any one and it's easy to do.
- Often by injecting the person it will buy them time until professional help gets there.
- Instructions in their use can be found on the injectors themselves.
- They should always be administered into the outside of the thigh.
- Once given sit the patient down and if possible raise their legs, do not get the person to stand up and await medical help.

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Epipen

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What is an intolerance ?

- An intolerance is caused by difficulty in digesting certain foods.
- The most common trigger is lactose intolerance.
- Lactose is a type of sugar found in milk.
- Other trigger foods can include gluten, caffeine, alcohol, sulphites and other preservatives.
- It often causes stomach pain, cramping, reflux, bloating, nausea, fatigue, rashes, wind or diarrhoea.
- There can be a time lapse between eating or drinking and symptoms occurring.
- Unlike a food allergy, a food intolerance is not usually life threatening. Although it can be debilitating for the sufferer.

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Coeliac disease

- Coeliac disease is an autoimmune disease. In certain predisposed people the ingestion of gluten can lead to severe problems.
- Some cereals contain gluten which is a protein. Examples include wheat, rye, and barley.
- Unlike an allergy although not life threatening, it can if left untreated lead to serious problems including damage to the small intestine.
- Avoidance of gluten and products containing gluten is the only remedy for a healthier life.

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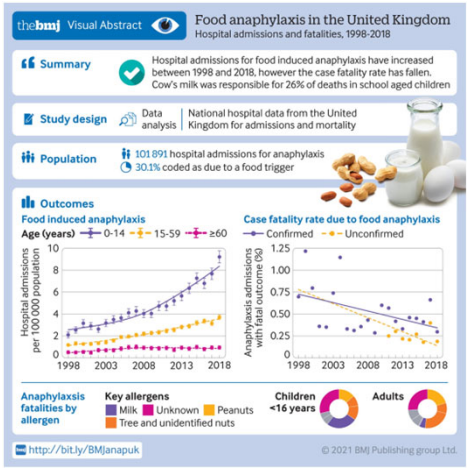
Anaphylaxis and fatality figures 1998 to 2018



- In a recent 20-year period, the prevalence of allergens has significantly increased.
- **Why has there been an increase in allergens?**

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Moral responsibility of a food business

- Food sold must be free from physical, chemical, microbiological and allergen contamination.
- Food safety is required to ensure consumers do not become sick because of something a food business did or did not do.

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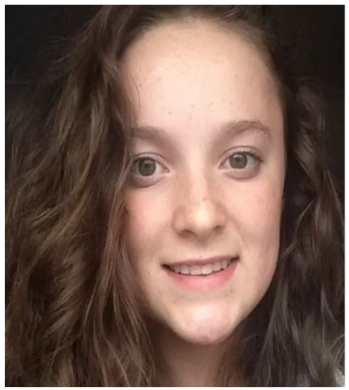
Fatalities from eating allergens (1)

- Megan Lee died in hospital, in November 2016, two days after eating a takeaway purchased from the Royal Spice Takeaway in Oswaldtwistle, Lancashire.
- In sentencing the takeaway owners, Mrs Justice Yip told them that Megan was responsible enough to highlight her allergies when placing the order but *"sadly the same responsibility was not at your end"*.
- Judge Yip said the takeaway had no systems or processes to manage allergen control.
- She said she hoped *"the message is heard"* that food suppliers who fail to take proper care *"will face significant custodial sentences if a death results"*.
- Judge Yip added: *"Like Mr and Mrs Lee, I hope that this tragic case adds to the growing awareness in the food industry of what can happen if allergies are not taken seriously"*.



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Fatalities from eating allergens (2)

- 17 years old Owen Carey.
- Owen had a milk allergy and was unaware when he purchased and consumed his chicken fillet that it contained milk.
- The chicken had been marinated in butter milk
- Owen died in May 2021.

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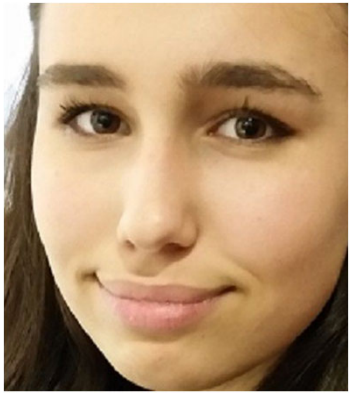
Fatalities from eating allergens (3)

- Probably the best known, and publicised fatality in recent years was that of 15 years old Natasha Ednan-Laperouse.
- Natasha who died from anaphylaxis in 2016 in Nice after eating a baguette purchased at Pret a Manger in Heathrow Airport which Natasha consumed during the flight.
- Natasha had an allergy to sesame which was contained in the dough of the baguette.
- The coroner said the warnings at Pret were inadequate
- Natasha's Law was passed in Parliament in 2021 to what we now know as the Pre-Packed for Direct Sale Law (PPDS).



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Food Standards Agency alerts

- Subscribe to news and alerts
- Search Food Standards Agency for alerts

Food Standards Agency

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2. Legislation/Local Authority Inspections

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2. Legislation/Local Authority Inspections - Key Learnings

- Food Safety Act 1990
- General Food Regulations 2004
- Food Information Regulations 2014
- Food Information for Consumers 2014
- Natasha's Law – Food Pre-Packed for Direct Sale (PPDS)

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Legislation (1)

- **The Food Safety Act (1990)**
- Food must be of the nature substance or quality described.
- Section 15 makes it an offence to falsely describe advertise or present food.

- **General Food Regulations (2004)**
- Under Section 3 - Food shall not be placed on the market if it is determined unsafe or injurious to health.
- Codex recommends that all relevant personnel in a food business should receive allergen training as appropriate to their roles and responsibilities.

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Legislation (2)

- **The Food Information Regulations (FIR) 2014**
- **Foods that are not pre-packed etc. containing an allergenic substance or product etc.**
- 5.—(1) A food business operator who offers for sale a relevant food to which this regulation applies may make available the particulars specified in Article 9(1)(c) (labelling of certain substances or products causing allergies or intolerances) in relation to that food by any means the operator chooses, including, subject to paragraph (3), orally.
- (2) This regulation applies to a relevant food that is offered for sale to a final consumer or to a mass caterer otherwise than by means of distance communication and is—
- a) not prepacked,
- (b) packed on the sales premises at the consumer's request, or
- (c) prepacked for direct sale.
- (3) Where a food business operator intends to make available the particulars specified in Article 9(1)(c) relating to a relevant food orally, and a substance or product listed in Annex II or derived from a substance or product listed in Annex II is used as an ingredient or processing aid in the manufacture or preparation of the food, the operator must indicate that details of that substance or product can be obtained by asking a member of staff.
- (4) The indication mentioned in paragraph (3) must be given—
- (a) on a label attached to the food, or
- (b) on a notice, menu, ticket or label that is readily discernible by an intending purchaser at the place where the intending purchaser chooses that food.

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Legislation (3)

- **The Food Information to Consumers Regulations (FIC) 2014**

- This Regulation provides in particular **clearer and harmonised presentation of allergens** (e.g. soy, nuts, gluten, and lactose) for pre-packed foods (emphasis by font, style or background colour) in the list of ingredients and **mandatory allergen information for non-prepacked foods**, including in restaurants and cafes.

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Legislation (4)

PPDS: Labelling rules

PPDS food will have to clearly display the following information on the packaging or on a label attached to it:

- **The name of the food**
- **Full ingredients list, with the 14 allergenic ingredients emphasised (for example in bold, *italics* or a different colour)**

Ingredient lists including the emphasis of any of the 14 categories of allergens must be printed on the package or on the label in such a way as to ensure clear legibility.

In characters using a font size where the x-height is equal to or greater than 1.2 mm.

Small packets: In case of packaging or containers the largest surface of which has an area of less than 80 cm2 , the x-height of the font size referred to in paragraph 2 shall be equal to or greater than 0.9 mm

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Local Authority Approval

- Local Authorities via Environmental Health Officers (EHOs) must be assured that food processed and packed on sites is safe for the public to consume.
- To do this they complete Official Control Verification (OCV) inspections.
- These inspections are to ensure compliance to the regulations.
- Officers must be satisfied that allergen risks are controlled.
- Significant changes within the process/allergen handling status should be reported to the Local Authority to ensure that the approval covers all the processes on site.

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3. The 14 Recognised Allergens

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3. The 14 Recognised Allergens - Key Learnings

- The 14 recognised allergens
- Hidden allergens
- Reactive doses/low reactive dose
- Allergen threshold dose
- Precautionary allergen labelling

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14 recognised allergens

- Refer to the Food Standards Scotland 14 recognised allergens handout 1.
- What is the most common allergy in the UK?
- Other common allergens (but not in top 14)
  - Legumes including beans, peas, lentils and pulses as well as Tomato, strawberry, avocado, mushroom, onion, garlic (list is endless and food can be an allergen to someone). This highlights the importance of correct ingredient labelling.

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Hidden allergens

- Did you know that peanut oil is sometimes referred to as ground nut oil?
- What products can often contain celery?
- Which allergen is in Worcestershire sauce?
- Which cuisine uses fish sauce in a wide variety of its meals?
- Which foods contain sulphur dioxide/sulphites?

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Allergen threshold dose

- The lowest amount of the allergen to trigger an allergic reaction if eaten.
- There is constant ongoing research carried out in the medical field to establish data on the latest threshold doses for each allergen.
- This medical research is used by the food industry to help reduce cross contamination risks and understand the threshold levels.

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Reactive dose

- The amount of allergen in a food which can be enough to trigger an allergic reaction.
- In some cases this can be below the allergen threshold dose.
- Low reactive dose in a case in 2012 a young woman dies after kissing her boyfriend who had recently eaten peanut butter on toast.

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Precautionary allergen labelling

- Used by a food business to warn that a food may have been in contact with a specific allergen somewhere in the process. However it is not an intentional ingredient.
- This wording 'may contain' on labelling however should only be used when a thorough risk assessment is carried out where it is identified that a risk of cross contamination has not been sufficiently managed.
- Over use of this labelling is inconvenient to allergy sufferers, it limits their choice for foods which they can safely eat and can lead to a devalue in allergen labelling.

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4. Allergens in HACCP

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4. Allergens in HACCP - Key Learnings

- HACCP - scope, flow, risk assessment, intended use, vulnerable groups
- Demonstrating due diligence
- Prerequisites

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Allergens in HACCP

- Strict adherence to the Codex Alimentarius (Food Code)
- Ensuring the scope is defined.
- Define the intended use of the product and if there are any groups that should not eat the product (specific allergen sufferers).
- Flow diagram – ensure all stages are captured in the process, if something is missed it will not go through to the risk assessment stage.
- See handout 2, example of a HACCP risk assessment including allergens.

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Activity – create a flow diagram

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Create a flow diagram

- **5 Minute Activity**
- Use handout 3, blank flow diagram to complete a flow diagram for making and serving a cup of tea.

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Include in a flow diagram

- Intake of all packaging and ingredients (this could be water)
- Storage
- Rework
- Waste
- Critical Control Points
- Walk the process to ensure what is documented it what is happening on the production floor (verification)
- Review regularly

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Due diligence

- Doing everything reasonably possible to prevent a food safety issue from occurring.

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Due diligence defence

- The due diligence defence has been designed to balance protecting consumers against defective/harmful food products with the right of businesses not to be convicted for something they have taken all reasonable precautions to avoid.
- In a due diligence defence then proof that all reasonable care has been taken is required.
- How do you prove that due diligence has been taken?

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Mens Rea

- The intention or knowledge of wrong-doing that constitutes part of a crime, as opposed to the action or conduct of the accused.

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Prerequisites (1)

- **Definition of a Prerequisite**
  A thing that is required as a prior condition for something else to happen or exist.
- **Definition of a Prerequisite relating to HACCP**
  Basic hygiene measures (keeping in mind that hygiene does not just mean cleanliness) that should be in place in your food business prior to you undertaking a HACCP study.

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Prerequisites (2)

- Give some examples of what you would have in a prerequisite programme.
  - Approved suppliers
  - Cleaning schedules
  - Maintenance schedules
  - Allergen procedures & controls
  - Cross contamination measures
  - Waste disposal
  - Pest control
  - Supplier approval
  - Labelling procedures
  - Traceability & recall
  - Staff training
  - TACCP (Threat Assessment and Critical Control Points)
  - VACCP (Vulnerability Assessment and Critical Control Points)
  - Site security
  - Higher management commitment

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5. Allergen Control Plan

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5. Allergen Control Plan - Key Learnings

- What is an Allergen Control Plan?
- Why does a company need an Allergen Control Plan?
- Implementation of a control plan

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What is an allergen control plan?

- It is a document regarding the purchase, storage, handling, processing, packaging, labelling, ingredients, identification of allergen status of ingredients, work in progress and finished products and their traceability.
- Details what the business has in place and what must be done.

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Why is an allergen control plan needed?

- To make everyone aware of what the controls are on site and therefore ensure prevention of contamination.
- Helps to ensure that everything throughout the system is covered.
- Can be provided to customers/Local Authority EHOs.

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Implementation of the allergen control plan

- Strict adherence to the procedures
- Training of staff and ensure competency
- Ensuring reviews are carried out
  - New ingredients, recipes, allergens
  - New processes, equipment, methods
  - Complaints, withdrawals, recalls
  - Changes to legislation
  - At least annually if no other changes have been made
- See handout 4 – example allergen plan

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6. The importance of Supplier Approval and Purchase Specifications

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6. The Importance of Supplier Approvals and Purchase Specifications - Key Learnings

- Supplier approval
- Ensure knowledge of the importance of specifications

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Supplier approval

- Food businesses have a duty to pass on information when supplying raw materials & ingredients.
- As a customer a food business needs to ensure they are aware of all necessary information on raw materials and ingredients they are buying in.
- Therefore approving a supplier is key.
- What can you do to approve a supplier?

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Raw material specifications

- Specifications should be sent prior to purchase of products so there is written evidence of key information, including allergens
- Having them signed by both parties is good practice
- Any change to a raw material or ingredient should be updated on the specification and sent to the buying business and consulted upon before automatically supplying.
- It is also the buying businesses responsibility to routinely check if there have been any changes.
- See handout 5 – example raw material specification

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7. Preventing Cross Contamination – Delivery and Intake

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7. Preventing Cross Contamination – Delivery and Intake - Key Learnings

- Understand the risks associated with transport & delivery
- What is required on delivery?
- The importance of a delivery note
- The importance of a transport agreement

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What is required on delivery?

- Ensure that during unloading the load is checked for the usual signs of damage to the load/packaging, physical and chemical contamination and for correct temperature control, but also for any signs of contamination from allergens.
- Ensure a delivery note is available with the load and is correct with the amount ordered but also the product name or code number or order number. It is possible this may even have the allergens noted.
- See handout 6 – example delivery note

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The importance of a transport agreement

- A transport agreement is a good way to show due diligence but also to ensure the transporter is aware of the requirements. This could detail chemical and physical contamination risks and temperature limits, but also allergens.
- If a transport agreement is in place then ensure that this is strictly adhered to.
- See handout 7 – example transport agreement

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8. Preventing Cross Contamination - Storage

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8. Preventing Cross Contamination – Storage - Key Learnings

- Design of the storage area and management of the area
- Consideration of the state of the raw material or ingredient (solid, liquid or powder)
- Signage/maps
- Movement throughout the store
- Spillage control

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Design and management

- Storage space must be sufficient for all the items being stored.
- Racking and shelving can increase storage space dramatically, however it can bring its own risks if not used correctly.
- Carefully consider where ingredients will be stored based on their physical state, how often they are used and what packaging they are in.
- Consider dedicated bays and/or colour coding to identify allergen areas.
- This area needs strict management and control and should be routinely audited to ensure compliance.

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State of the ingredient

- The state of the ingredient is key to ensuring it is stored in a place where it can cause least contamination if there is damage to packaging.
- Liquids – such as milks or thin sauces can easily run downwards on to ingredients below.
- Powder – can easily cause airborne contamination.
- Solids – can contaminate by falling out but easier contained than the others.
- Consider any drip loss or defrosting products in stores.

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Signage/floor plans

- Once the storage area is arranged, signage and floor plans are key to ensure that everyone is aware what is to be stored in which area.
- Pictorial representations and easily visible signs are key to understanding.

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Movement to reduce cross contamination

- Placement of items in a store are also dependent on risks during their movement either from one side of the store to another or being lifted up or down from racking.
- Try to protect bags from damage during storage and handling.

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Spillage control

- Packaging and containers should be checked for damage or leaks and you should have a documented procedure in place to say what must happen to any such item.
- Quarantine procedures must be used for any such item.
- If an incident involving contamination occurs, then there will need to be documented procedures in place and sufficient appropriate equipment to clear up any spillages.
- Disposal of waste also needs to be carried out safely.

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Raw materials management

- Once checked, ensure there are allergen labels attached to avoid the risk of any mistakes.
- Remove to the appropriate storage area logging details onto your storage record documentation.
- Ensure you have designated areas for different allergens and these are clearly defined and signposted.
- If decanting dry ingredients such as flour ensure this is done in an area where you can control the dust from contaminating other products. Use extractors within a confined area where possible.
- It is also important when handling unpackaged goods that they are controlled.

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Activity – Storage of allergens

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Where to store items in a store

- Show where the following four items should be stored and explain why. Consider the packaging and allergens.
- 1 = Bulk waffle mix, 10 boxes (gluten is present)
- 2 = Bulk tomato sauce, 10 boxes (celery and mustard are present)
- 3 = Bulk salt, 1 pallet (no allergens present)
- 4 = Bulk containers ground nut oil (peanut is present)
- Use handout 8

1

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9. New Product Development (NPD) and Introduction of New Allergens

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9. New Product Development and Introduction of New Allergens - Key Learnings

- Allergen plan and the importance of keeping it up to date
- Substitution of ingredients
- Current storage capacity
- Include NPD staff within the HACCP Team/communication between teams

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Allergen plan

- Allergen plan must be kept up to date.
- Even if products containing different allergens are under development and not within department in full production they will still be on site and can be a risk without correct controls.

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Substitution of ingredients

- Changing from one ingredient to another of a similar type without the correct checks could be an allergen risk
- Scenario
  - The weather forecast is for good weather
  - It's a bank holiday
  - Orders for the prawn cocktail pots have increased significantly, well above the forecast amount
  - The sales team do not want to disappoint the customers
  - Stock levels of the tomato sauce, one of the ingredients is low and will not be sufficient to make enough of the sauce to fulfil the orders
  - The procurement team cannot get a delivery of the usual brand from the approved supplier
  - A member of the procurement team have been sent to the local cash and carry
  - No one has informed the technical department of the change
  - There has been no supplier or ingredient approval or allergen check
  - Discuss

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Current storage capacity

- Introduction of new ingredients for new products could mean the introduction of a new allergen.
- Ensure the available storage facilities have been reviewed for space and where it can safely be stored.

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Teamwork & communication

- Ensure there is a good level of communication between teams and ensure that NPD staff are included in HACCP teams and have had adequate training on understanding the allergen procedures on site.

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10. Preventing Cross Contamination - Production

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10. Preventing Cross Contamination - Production - Key Learnings

- Routes of movement - (ingredients, raw materials, work in progress, finish product and staff
- Rework
- Quarantine
- Defrost
- Decanting
- Segregation (department, area, line, running order)
- Colour coding
- Storage/chills
- Packaging/labelling
- Traceability/record keeping
- Staff

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Routes

- When deciding how the processing area will be planned out consider the route the raw material, ingredients, work in progress or finished products will take.
- Aim to reduce the risk of cross contamination.
- Be aware of the route that raw materials, ingredients, work in progress will take from other departments or storage areas.
- Have a map of the site in place with defined routes risk assessed to lower risk of cross contamination.

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Rework

- Rework is where an ingredient, work in progress or finished product is then used on another line or in a different product.
- Ensure that there is a clear defined list of what ingredient, work in progress or finished product can be used for.
- Use clear labelling for rework product and strict procedures on who can decide what may be used.
- Include rework in the HACCP flow.

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Quarantine

- Quarantined product can be there for many reasons not relating to allergens, maybe a temperature, sealing issue or incorrect labelling.
- Ensure that it does not become an allergen cross contamination risk.
- Use labelling and segregation and strict procedures on who can decide what happens to quarantined product.

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Defrost

- Liquid run off during thawing can become a cross contamination risk.
- Ensure that designated areas are in place for defrosting.
- Ensure that run off is safely disposed of.
- Include defrost in the HACCP flow.

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Decanting

- If liquid or dry ingredients need to be decanted from original storage bags or containers or into hoppers or mixing containers, ensure this is done safely, use dedicated areas where necessary and ensure labelling and traceability follow the ingredients.

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Segregation

- Consider all the ways that segregation can be used. This will depend on the size and design of the building, especially if the building was not originally designed for a more complicated process.
- Use a separate department if possible and strictly control access and processes.
- Segregate an area or line in one department and strictly control the area and processes. Use screens, walkways, dedicated staff and equipment.
- Segregate by time on the same lines using a specific running order/different shifts.
- Ensure that cross contamination on lines is considered during packaging changes, running empty packs on large automated packing lines.
- Segregate by cleaning between each product.

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Colour coding

- To help reduce cross contamination have dedicated equipment per allergen or on different lines.
- Use colour coded tray liners for different ingredients.
- Ensure it is obvious to staff what the rules are and have strict procedures in place.
- Ensure equipment is stored in a position, easy for staff to access.

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Storage/chills

- Storage and chills maybe within separate departments as well as separately within a business.
- Remember to consider the space available.
- These storage areas may have different rules than the other stores due to the ingredients, raw materials, work in progress or finished products they hold.
- Ensure everyone is aware of the rules.
- Signage and spillage control are also required.

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Packaging/labelling

- Have strict packaging and labelling design, and checks and approval in place.
- Ensure packaging and labels are stored in allocated areas with signage.
- Ensure anyone removing these is trained adequately.
- Have strict procedures in place on allocating packaging and labelling to lines.
- Remember that some labels for different products with different allergens maybe very similar if part of the same product range.
- Many FSA alerts are due to allergens not being declared on the label.

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Traceability/record keeping

- Traceability and keeping accurate records is key for packaging and labels (in case one batch is wrong and affects part of a larger batch).
- Traceability is required for all of the ingredients, raw materials work in progress and finished products throughout the process.

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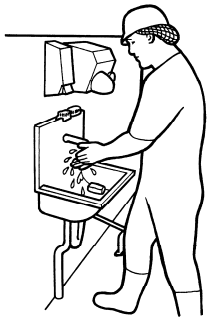
Staff

- Staff can be a major cause of cross contamination due to lack of training or understanding on how a task should be completed.
- Alternatively they may also have decided to do something that they think is easier or better without considering or being aware of the consequences.
- A member of staff making an error should be able to communicate with supervisors or managers so that the issue can be assessed.
- Changes in procedures must be trained out immediately remembering all staff on all shifts, including part time staff or those who were on leave when changes occurred.
- Strict PPE rules and their cleaning, food hygiene rules and handwashing.
- Training and supervision is critical.



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Activity – Running order of production

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You are in charge of creating the running order of a list of products to be packed which are in the same department on the same line.

The products and allergens are listed below.

- Haddock fillets with a spicy herby butter medallion (allergens – fish, milk, mustard)
- Haddock with herby butter medallion (allergens – fish, milk)
- Cod loins (allergens – fish)
- Langoustine tails with a sachet of Thai spicy marinade (allergens – crustaceans)

- What would consider to be the best order and why?
- What considerations in the department/area would you make?

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11. Preventing Cross Contamination - Cleaning

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11. Preventing Cross Contamination - Cleaning - Key Learnings

- The importance of a cleaning schedule (cleaning frequency, method, order, equipment, chemical, concentration, contact time, rinsing)
- How cleaning can cause cross contamination
- Post hygiene checks

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Cleaning schedule

- Cleaning schedules are critical and must note all equipment, machinery and utensils. Consideration given to the area and equipment.
- The following must be defined
  - Frequency (after allergen, daily, between shifts, weekly, monthly, quarterly, annual)
  - Method of cleaning (cleaning, sanitising)
  - Order of cleaning
  - Equipment to use (high/low pressure hose, air hose, brush, scourer, cloths, squeegees and these must also have details of how to clean them)
  - Colour coding for cleaning certain areas/equipment
  - Chemical, dilution rate, contact time and rinse instructions
  - Documentation completion
  - Training of cleaners & supervision
  - Contract cleaners must also be trained against your allergy policy and procedure

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How cleaning can cause cross contamination

- Air hose dry cleaning could be responsible for spreading airborne particles of allergens to other surfaces some distance away.
- High pressure hoses can do similar.
- Cleaning equipment, pallet trucks, bulk containers etc can all be possible allergen contamination risks if not cleaned.
- Remember to include cleaning of wheels, trolleys, pallet trucks and fork lifts as part of your cleaning schedule as these may be used between different departments therefore posing an allergen risk.

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Post hygiene verification

- Post hygiene verification of cleaning can be carried out to check for presence/absence of allergens.
- Visual is the start.
- ATP (adenosine triphosphate) tests will give indication if proteins are present.
- Allergen test kits can be used and these can be qualitative (quick test for presence/absence) or quantitative (longer test for actual amount of allergen present).
- Food products can also be tested.

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12. Preventing Cross Contamination - Engineering

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12. Preventing Cross Contamination - Engineering - Key Learnings

- Maintenance chemicals
- Engineers inhouse & external contractors
- Post maintenance sign back
- Dedicated toolboxes/toolbox checks

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Maintenance chemicals

- Ensure awareness of chemicals being a possible source of contamination, have specifications for all maintenance chemicals allowed to be used on site.
- Some engineering food grade lubricants have peanut/nut derivates in them.
- Add chemical and maintenance service suppliers to the approved supplier lists and have an approved list.
- Ensure engineers are trained on allergens.
- See handout 9 – example chemical allergen statement.

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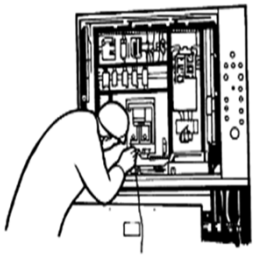
Inhouse/external contractors

- All engineering and maintenance work must be completed to ensure cross contamination does not take place.
- Make inhouse engineers aware of allergens and how cross contamination can occur.
- Ensure that they are responsible for the supervision of work carried out by external contactors (which is why the inhouse must fully understand the rules) starting with a visitor/contractor questionnaire.



96

Post maintenance sign back

- Ensure that any maintenance/engineering work is recorded.
- As part of this ensure that it is verified as clean and safe to be used again within the production environment.
- Production department is aware it is safe for use.

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Dedicated toolboxes/toolbox checks

- Tools can be another form of cross contamination of allergens.
- Have toolboxes with lists of contents and consider random checks of physical integrity but also cleanliness.
- Consider captive toolboxes in departments or areas rather than a toolbox per engineer.

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13. Preventing Cross Contamination – Food Service

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13. Preventing Cross Contamination – Food Service - Key Learnings

- Dedicated preparation areas/equipment/storage
- Signs
- Ingredients/recipes
- Cleaning/hygiene practices
- Staff awareness/communication
- Hidden allergens

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Dedicated preparation/equipment/storage

- If a meal is being sold as being free from an allergen then it may need a separate area and/or dedicated equipment (fryer, toaster, panini press).
- Storage is the same as in a production environment just in a smaller scale.
- Cross contamination is a high risk here especially as the environment can be busy with lots of activity.
- Surfaces, utensils, staff hands & protective clothing need to be kept clean.
- Ensure displays of products that are allergen free are not contaminated by other products.

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Signs

- Signs are critical to ensure everyone knows what areas are in use for preparation.
- Which colour coding is in place for which allergen usage.
- Information at point of service for customers.

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Ingredients & recipes

- Ensure strict control of ingredients is in place.
- If substitution has been required ensure someone is responsible for checking the ingredients and allergen status.
- Ensure reviews are regularly carried out as manufacturers can change ingredients and it's not often stated as a 'new recipe' or 'new taste' on the packaging.

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Cleaning/hygiene practices

- Cleaning surfaces frequently and with correct chemicals and changing cloths/cleaning utensils frequently is essential.
- Ensure cleaning cloths and equipment themselves are kept clean.
- Cleaning should not cause an allergen contamination issue.

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Staff awareness and communication

- Staff training in allergen awareness is key as well as site specific requirements.
- Communication between chefs and front of house staff is essential especially in premises where meals and recipes can change on a daily basis.
- Ensure all staff have had training and are aware of the changes, especially part time or seasonal staff.
- Carry out, a before service briefing each day.
- Put signage up telling customers to speak to staff if they have an allergy or intolerance.

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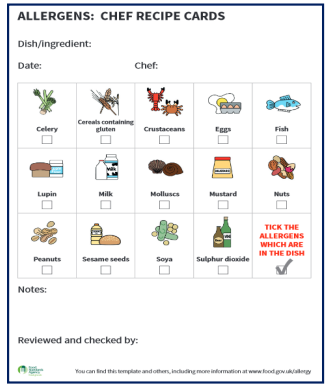
Chef recipe cards

- The use of Chefs recipe cards in food service allows all staff to know which ingredients are in a particular dish.
- This gives them the confidence to give the correct information to consumers.



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Hidden allergens!

- **Be mindful of hidden allergens in ingredients that maybe frequently used.**
- For example;
  - Fish in Worcestershire sauce
  - Mustard & celery in soups, stocks & sauces
  - Gluten in BBQ sauce

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14. Preventing Cross Contamination – Staff Facilities and Canteen

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14. Preventing Cross Contamination – Staff Facilities and Canteen - Key Learnings

- Site allergen status
- Ensure staff are aware of procedures/signage
- Signage

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Site allergen status

- The allergen status of the site must be made clear to staff and visitors.
- Some sites decide that having a site nut free is the best way to help control that particular allergen (due to the high chance of allergen sufferers having anaphylaxis).
- This means no nuts in products but also not brought on to site, in vending machines or by staff in foods they bring to consume at work.
- This requires training/signage and routine checks.

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Site procedures

- Have procedures relating to allergens within the site.
- Train all staff in relevant procedures and tailor the training to the job role/department to ensure everyone is aware of them.
- Have relevant signage in place (consider images where possible and in different languages as required).
- Have sufficient space for staff to safely store food they bring in to eat at work.

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15. Managing The Allergens List

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15. Managing the Allergens List – Key Learnings

- Importance of an allergens list (ingredients & finished product)
- Ensure the form of the allergen is listed (solid, liquid, powder)

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Importance of the allergens list

- Have a list of allergens in ingredients and finished products.
- Ensure it is kept up to date and reviewed regularly.
- Use this when planning production running orders.
- Use when making and updating labelling and packaging.
- See handout 10 – example allergens list.

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16. Training

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16. Training – Key Learnings

- What type of training is appropriate?
- How is competency assessed?

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What training is appropriate?

- Within the business there could be different levels of training.
- From business to business the allergen training needs can be very different.
- Allergen awareness could be taught at induction in basic food hygiene.
- Individual departments could conduct specific training for staff - in house and on the job training is viable as long as it is documented. Remember that both the trainer and learner should sign and date the documentation.
- Staff in supervisory and management roles should have further allergen training.

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Competency assessment

- With training complete checking on staff competency is critical in allergen awareness.
- Ensure staff are supervised.
- Carry out routine audits of procedures including staff following procedures correctly and checking if training records are in place and up to date.

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17. Allergen Claims

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17. Allergen Claims– Key Learnings

- Free From (ingredients and environment)
- Sampling and testing
- Packaging and labelling

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‘Free From’ claims

- Any ‘Free From’ claims made must have strict and stringent procedures in place throughout the process.
- This includes the omission from an allergen or list of allergens from the product itself and the processing environment.
- The Food and Drink Federation has specific Information & Guidance for business’s producing food with Free From Claims
- If a ‘Free From’ statement cannot be 100% guaranteed then **do not make it!**

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Gluten Free

- Gluten Free or Gluten levels are now clearly defined in law.
- Gluten Free = Less than 20 parts per million (ppm) gluten, which is the same as 20mg/Kg.
- Even if a Gluten Free product contains ‘Cereals containing gluten’ below the 20ppm threshold, the gluten ingredient will still need to be highlighted within the ingredients list i.e. barley in malt vinegar.
- Oats do not naturally contain gluten but if other grains grow nearby, there may be cross contamination, from fields, transportation or production facilities.
- Oats contain another protein called avenin which is similar to gluten and some gluten allergy suffers can also react to this and so may exclude oats from their diet.

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An alternative to flour in recipes

- There are many gluten-free alternative flours available. These are made from items such as coconut, flax, corn, rice and millet.
- These flours can be used instead of wheat flour.
- An alternative for those who need to avoid gluten.

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Sampling and testing

- Any ‘Free From’ products must have verification of this by laboratory testing.

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Packaging and labelling

- Extreme care must be taken to ensure that for the correct packaging and labelling is used for the correct products.
- Ingredient and allergen listings are critical.

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Activity – Why is a gluten free product more expensive than the same product containing gluten?

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18. Importance of Traceability

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18. Importance of Traceability– Key Learnings

- Maintaining traceability throughout the process

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Maintaining traceability

- It should now be clear that a requirement for accurate traceability throughout the process is absolutely essential.
- The documentation in place must be such that it can record all the necessary information including batch numbers of packaging, raw materials, ingredients, work in progress and finished product, must be the correct version.
- These documents must be completed clearly, legibly and in a timely manner. Sufficient room must be provided to allow staff to make entries clear and legible.
- Documents must be available and easily traced for the life of the product, plus freezing and in many cases for 3 years or more.
- Is traceability testing routinely carried out and is the current system working?

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Maintaining traceability with clear labelling

- Some key points to note
  - Is everyone involved aware of how the batch codes are generated? (examples – day/month, Julian, barcodes, sequential numbers)
  - Are links between changes in batch codes from raw material to work in progress to finished product clear and in place?
  - Is labelling substantial, so that it can stand up to the processing environment including temperature, moisture and heat?

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19. Visitors

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19. Visitors – Key Learnings

- Visitor questionnaire and verification of questionnaire

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Visitor questionnaire completion

- It is essential that all visitors to the site do so via the reception or security and that they complete the necessary documentation before entry.
- This can include details on the site allergen status, areas where they can and cannot go and foods they are not allowed to bring on site.
- This questionnaire must be verified by an authorised person on site prior to them entering the site.
- Visitors should be supervised by site staff.

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20. If it all goes wrong - recall

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20. If it all goes wrong – recall – Key Learnings

- The difference between withdrawal and recall
- How to carry out a recall procedure

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Difference between a withdrawal and a recall

- Withdrawal
  - When unsafe food is removed from the supply chain before reaching customers.
- Recall
  - When unsafe food is removed from the supply chain after it has been put out for sale and consumers are advised to take appropriate action, for example to return or dispose of the unsafe food.

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How to carry out a withdrawal or recall

- At this point it is dependent on when it was discovered, if there was an issue causing an allergen concern.
- It is dependent on when the issue occurs.
- Testing of how the recall would work by carrying out a challenge is essential.
- See handout 11 – example recall document as record keeping of how the incident has been dealt with is essential.

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How to deal with an incident internally (e.g. 2 hrs in to production)

- Quarantine product, work in progress, finished product, packaging/labelling, the line area/department
- Ensure no product has left the premises
- Assemble crisis management team
- Investigate occurrence
- Determine root cause
- Ensure all product is accounted for
- Ensure all product is disposed of with waste disposal records maintained
- Ensure area is no longer a risk
- Update any documents or procedures
- Retrain staff
- Complete formal HACCP review and fully document
- Complete recall report

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How to deal with an incident internally (e.g. 2 weeks ago)

- Assemble crisis management team
- Quarantine product, work in progress, finished product, packaging/labelling, the line area/department
- Investigate occurrence
- Contact customers/EHO/accreditation bodies/media as appropriate
- Ensure all product is accounted for
- Determine root cause
- Ensure all product is disposed of with waste disposal records maintained
- Ensure area is no longer a risk
- Update any documents or procedures
- Retrain staff
- Complete formal HACCP review and fully document
- Complete recall report

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Allergen Information

Food Standards Agency

Allergen and ingredients food labelling decision tool

Food Standards Scotland

NEWS & UPDATES

Food Standards Scotland recommends improved allergen labelling

15 MAY 2019

FSA Website: Food Allergies, Intolerances and Coeliac disease

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Key points to remember

- **Allergens kill.**
- The single largest root cause of recalls is due to allergen misrepresentation of information.
- Mislabelling.
- Omission of correct information on the ingredients list.
- Wrong packaging applied to the product.
- Cross contamination due to improper storage, procedures or ignorance.
- Don't have someone die, due to something you did or did not do.
- Train your staff about allergens.
- Having now completed this training show **you care** by implementing all the things you have learned today and perhaps **save a life**.

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Thank you

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