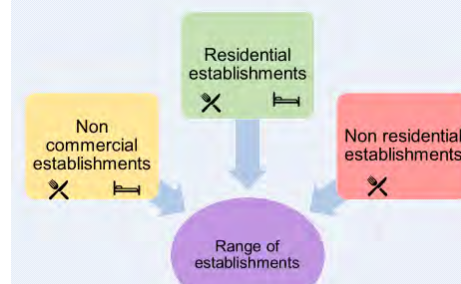


LO1 Understand the environment in which the hospitality and catering providers operate

AC 1.1 The structure of the hospitality and catering industry

- The **Hospitality and Catering** sector includes: pubs, bars and nightclubs; restaurants; self-catering accommodation, holiday centres travel and tourist services; visitor attractions and hotels. Hospitals, prisons, schools armed forces and social care.
- It has grown over the last 20 years and, despite recession, is predicted to continue to grow. The sector as a whole currently employs almost 2 million people.



Residential establishments

Hotels
Guest houses
Bed and breakfasts
Farmhouses
Motels
Holiday parks
Some public houses

Services and food provided varies by price charged

Non commercial establishments

Hospitals
Prisons
Meals on wheels
Residential care homes
Armed services

Services and food provided varies by the situation and the needs of the clients. Not required to make a profit

Non residential establishments

Restaurants
Fast food outlets
Public houses
Bars
Delicatessens
Take away outlets
School meals
Burger vans

Services and food provided varies by the situation and price charged

AC 1.1 The structure of the hospitality and catering industry – styles of service

Styles of food service

- Depends on
- Type of establishment
- Type of food being served
- Cost of the meal or food
- Time available for the meal
- Type of customer
- Number of customers
- Availability of serving staff

Counter service	Table service	Personal service
Cafeteria Self service Fast food Take away Buffet Carvery	Plate service Family service Silver service Gueridon service	Travel service Tray service Vending service

AC 1.1 The structure of the hospitality and catering industry- hospitality at non catering venues

Contract Caterers

- food for functions such as weddings, banquets and parties in private houses.
- prepare and cook food and deliver it to the venue, or cook it on site.
- They may also provide staff to serve the food, if required.
- Complete catering solutions for works canteens etc

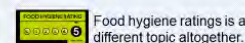
Planning menus

- Who** is the event for? Eg mixed ages, children, teenagers
- How** is it going to be served? Eg hot buffet, plate service, finger food, sit down meal
- What** are the special requirements? Eg vegetarians, non spicy food, traditional meal
- What** foods are appropriate for the event? Eg wedding, Christmas meal, seasonal foods
- How much** is the price per head? Eg cheap and cheerful, full gourmet experience, buffet

AC 1.1 The structure of the hospitality and catering industry- Standards and ratings

Benefits of ratings?

- A good establishment could see an increase in business from people wanting to try the food.
- It generates publicity for the establishment.
- Customers might come from further away to dine.
- Customers can identify less good establishments.



Food hygiene ratings is a different topic altogether.

Types of ratings



Michelin stars

Anonymous inspectors visit establishments and have a meal and write a review of the establishment can award stars for excellence.

Out of 3,600 establishments inspected in Great Britain and Ireland they awarded:

3 ****
23 ***
143 **



AA Rosettes & Stars

Inspectors visit restaurants or hotels and write a review of the establishment -award rosettes for restaurants, stars for hotels.

Restaurants
12 ****
38 ***
173 **



***** five star

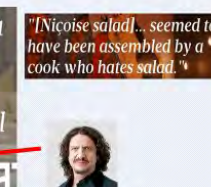
- Excellent staffing levels with dedicated teams with management levels.
- Exceptional levels of proactive service and customer care.
- All areas of operation should meet the Five Star level of quality for cleanliness, maintenance, hospitality.
- Hotel open seven days a week all year.
- Enhanced services offered e.g. valet parking, escort to bedrooms, 24-hour reception, 24-hour room service, full afternoon tea.
- At least one restaurant, open to residents and non-residents for all meals seven days a week.
- Minimum 80% bedrooms with en suite bathroom with WC, bath and shower
- Facilities e.g. secondary dining, leisure, business centre, spa,
- At least one permanent luxury suite available, bedroom, lounge and bathroom).

Poor reviews

- What could this do for their reputation?
- How could they address these?



"An amuse bouche brings a stodgy croquette, the size and colour of a cat's turd, on a thick tomato purée full of metallic tang."



Good Food Guide

Members of the general public who have visited the establishment fill in a review which is compiled into a guide. Award points for excellence.



Score 10 - 2
Score 9 - 4
Score 8 - 13
Score 7 - 23

Online review sites

- There are a number of online review sites where anyone can post their reviews of an establishment.
- With a large number of reviews, a restaurant's average score is likely to be reasonably accurate.
- There are guidelines to clamp down on establishments that give away freebies for a good review or give themselves good reviews!



Suppliers

- Hospitality and catering establishments usually need to purchase supplies in large quantities.
- From glassware to custard powder to meat to bed sheets and bathroom soap.
- Establishments use wholesalers and specialist markets where the price charged for large quantities is lower and the VAT is calculated by the establishment so not added to the cost.

****four star

- higher quality of service levels in all departments and in general higher staffing levels; as well as a serious approach and clear focus to the food and beverage offering.
- All areas of operation should meet the Four Star level of quality for cleanliness, maintenance and hospitality, residents should have 24 hour access, facilitated by on-duty staff.
- 24 hour room service, including cooked breakfast and full dinner during restaurant opening hours
- services offered, e.g. afternoon tea, meals at lunchtime
- At least one restaurant, for breakfast and dinner seven days a week.
- All bedrooms with en suite bathrooms showers.
- Wi-Fi or internet connection provided in bedrooms.

*** Three star

- All areas meet the Three Star level of quality for cleanliness, maintenance and hospitality
- Residents have access at all times during the day and evening Dinner served a minimum of six evenings a week with bar snack or equivalent available on seventh
- Room service as a minimum of hot and cold drinks and light snacks (e.g. sandwiches) during daytime and evening.
- All bedrooms with en suite bathrooms.
- Internal or direct dial telephone system required
- Wi-Fi available in public areas.

* one star

- minimum of five bedrooms.
- All bedrooms with en suite or private facilities.
- guests have access to the hotel at all times.
- Proprietor and/or staff on site all day and on call at night.
- A dining room, restaurant serving a cooked or continental breakfast seven days a week.
- A dining room, restaurant serving evening meals at least five days a week
- A bar or sitting area with a Liquor (alcohol) Licence.
- Hotel open seven days a week during its operating season
- Proprietor and or staff available during the day and evening to receive guests and provide information
- A clearly designated reception facility



LO1 Understand the environment in which the hospitality and catering providers operate

AC 1.1

The structure of the hospitality and catering industry- suppliers to hospitality and catering

Specialist markets

Advantages	Disadvantages
<ul style="list-style-type: none">Large choice of commoditiesSeveral suppliers at the market means costs are kept down by competitionSupplies are always at their freshestNew supplies in every day	<ul style="list-style-type: none">May not be easy to get to eg LondonWork through the night and close early in the morningCosts of transport back may be expensivePurchaser has to judge quality for themselves before they buy

Local suppliers

Advantages	Disadvantages
<ul style="list-style-type: none">Local deliveries, less environmental impactMay use local farms and companies for commoditiesSmaller firms, personal business relationshipMay be able to change order at short notice	<ul style="list-style-type: none">May not have a wide selectionSmaller companies buy in smaller quantities so costs moreMay not be able to supply large orders

Large Wholesalers

Advantages	Disadvantages
<ul style="list-style-type: none">Very large range of commodities and sundriesCan have in house butchery departmentPre made and pre portioned foodLarge bulk packaging of ingredients	<ul style="list-style-type: none">May be expensive for pre made foodsHave to order well in advanceSet delivery daysHave to order large quantities to get a discount

Restaurant supplies

from specialist companies



Catering equipment

Specialist large scale catering and kitchen equipment from specialist companies



AC 1.2

Job roles in the Hospitality and Catering industry

Head chef

The head chef (Executive chef) is a management level position
The head chef is responsible for

- Menu planning
- Food production
- Costing and purchasing
- Staff work rotas and training
- Hygiene of the kitchen and staff
- Stock control

Sous chef

- The Sous chef (sous=under in french) is directly in charge of food production, the minute by minute supervision of the kitchen staff, and food production
- A sous chef will also have many years experience in all stations of the kitchen and level 4 qualifications gained over years of study.
- this role is more kitchen based than the head chef which may have office based duties as well

Pastry chef



Le Pâtissier

The pastry chef is responsible for the preparation of baked goods such as pastries, cakes, biscuits, macarons, chocolates, breads and desserts, special occasion cakes. In larger establishments, the pastry chef often has team in their own kitchen

Other areas- Chefs de partie

Poissonnier- fish
Legumier- vegetable accompaniments
Potager – soups
Boulangier – bread and baked goods
Boucher – prepares meat and charcuterie
Glacier – chilled and frozen desserts
Friturier – fry chef
Grillardin – grill chef

Sauce chef



Le Saucier

Prepares sauces, stews and hot hors d'oeuvres and sautes food to order, After the head chef and the sous chef the sauce chef is the next in line

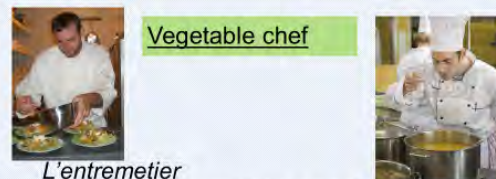
Larder chef



Le garde manger

Responsible for preparing cold foods, including salads, cold appetisers, pates and buffet items

Vegetable chef



L'entremetier

Prepares hot appetisers and often prepares the soups, vegetables, pastas and starches, side dishes
Sometimes split into soup (le potager) and vegetable (le legumier) chefs

Restaurant manager

- The restaurant manager is in overall charge of the restaurant,
- Takes bookings, relays information to the head chef, completes staff rotas, ensures the smooth running of the restaurant

Maître d'Hôte



Managers responsibilities

Depending on the size of the establishment, management responsibilities may include the following

- Dealing with complaints
- Setting budgets and monitoring spending
- Ensuring that wages are paid
- Complying with legislation
- Setting staff rotas
- Interviewing applicants for jobs
- Setting standards of service

Patience, tact and diplomacy

You need to be sensitive when dealing with others who have difficult issues, when solving problems or dealing with complaints. Always answer politely and make sure the customer is happy. Eg if they ordered a steak medium and then say it is undercooked even if it is medium

Team player

Hospitality jobs need people to be team players and communicate effectively and correctly with their co workers to ensure the smooth running of the establishment.

Personal presentation

Workers must have good standards of personal hygiene, tidy appearance and good posture. Smart dress, tidy hair and non visible tattoos give a good impression of the establishment

Honesty

When dealing with serving drinks and taking payments as well as other working situations you must be honest and transparent with your job. Telling the truth if something happens and being honest with money are essential

Initiative

Being able to work on your own initiative is a very important quality, anticipating customer needs and solving problems, if something spills, clear it up without having to be told, if a customer is looking unhappy with their food ask if everything is ok

Self motivation

Being self motivated means trying to do your best, not having to be constantly asked to do things, being at work on time, making sure things are done even if it was not your duty

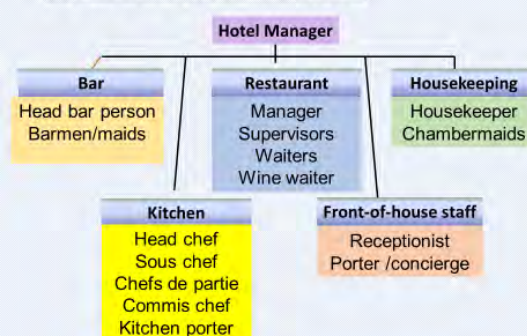
Frozen foods suppliers

Brakes



Supply frozen ingredients as well as pre made and pre portioned food

Staff structure in a hotel



LO1 Understand the environment in which the hospitality and catering providers operate

AC 1.3

working conditions across the hospitality and catering industry

Employers want to employ most workers when they have busy times

Busy times of year:

- Christmas
- Tourist season
- School holidays
- Mothers day
- Valentines

Days of the week

- Friday
- Saturday
- Sunday
- Pay day

Time of day

- Lunchtime
- Afternoon
- Dinner time
- (breakfast)

Working hours

- Hospitality and Catering jobs tend to be long hours, early starts for breakfast in a hotel to late nights for dinner in a restaurant.
- Staff will still get 2 days off a week but it will be quieter days instead of the weekend
- Shifts could be 6-3, 11-6, 3-11 or other hours.
- Monthly salaried staff may not have set hours eg Head Chef who might work from early morning to late night every day

Contracts of employment

Full-time staff = over 36hrs a week

- Have permanent jobs and work all year.
- Contract explaining the terms of their employment.
- They may work set shifts or have shifts that change daily/weekly/ monthly.
- They will work a set amount of days over a 7 day week, including weekends.
- Entitled to sick pay and holiday pay
- Entitled to maternity pay

Contracts of employment

Part-time staff = 4- 16hrs a week

- Have permanent jobs and work all year.
- Contract explaining the terms of their employment.
- They may work set shifts or have shifts that change daily/weekly/ monthly.
- They will work mostly at the busiest times of the day/week including weekends.
- Entitled to sick pay and holiday pay (in proportion)
- Entitled to maternity pay

Contracts of employment

Temporary staff

- Employed for a specific length of time such as the summer tourist season or the month of December.
- Temporary staff have the same rights as permanent staff for the duration of their contract.
- Temporary staff employed for longer than 2 years become permanent by law

Casual staff / Agency staff

work for specific functions and can be employed through an agency. They do not have a contract or set hours of work. They are needed at busier times of the year e.g. At Christmas or for weddings, New years eve.

Full-time and part-time employees must have



Full-time and part-time employees must have

1. a written statement of employment or contract setting out their duties, rights and responsibilities
2. the statutory minimum level of paid holiday 28 days for full time workers
3. a pay slip showing all deductions, eg National insurance, tax . Earning above £155 a week
4. the statutory minimum length of rest breaks- one 20 min break for 6 hrs worked
5. Statutory Sick Pay (SSP) £88.45 pw for 26 weeks (some may get full wages for a limited amount of time)
6. Maternity, paternity and adoption pay and leave-90% of earnings for 6 weeks then £139.58 for next 33

Pay

Role	Yearly pay (gross)
Hotel manager	£40,187
Restaurant manager	£33,940
Head chef	£33,621
Bar manager	£28,163
Sous chef	£26,278
Pastry chef	£24,464
Duty manager	£22,215
Waiting staff	£21,974
Bar staff	£21,236
Chef de partie	£21,105
Commis chef	£16,276

Tips

Most establishments divide between the workers, don't count towards minimum wages but you should pay tax on them

- Other remuneration
- Meals
 - Accommodation
 - Uniform
 - Bonuses

Conditions for workers

- Provision of uniform
- Optional overtime
- Working hours
- Meal allowance
- Pension
- Minimum wage
- Training adequate to job
- Equal opportunities – recruit, promote, train
- Health and safety – a right and a responsibility

Legislation that protects workers

- Disabled Discrimination Act 1995
- Equal Pay Regulations 1970
- Health and Safety At Work 1974
- National minimum wage
- Working Times Regulations 1998
- Part-time workers Regulations 2000



Monthly salaried staff

Work fixed hours or shifts eg; managers, receptionists, housekeepers

Hourly paid staff

Hours of work vary day to day ,paid for the actual hours they work either at the end of a shift or weekly eg; waiters, kitchen assistants

Paid Annual Leave

All workers are entitled to 28 days paid leave annually

- **no** legal right for employees to be given Bank and Public Holidays. Most hospitality staff would work these days

To calculate holiday entitlement,

Multiply the full-time entitlement (28 days) by the number of days worked and divide by the number of days full-time staff work

Entitlement for 3 days a week: $28 \times 3/5 = 16.8$ days

Compulsory Rest Breaks

- Adult workers are entitled to 24 hours off in each 7 day period and young workers (15-18) are entitled to 2 days in 7.
- Adult workers are entitled to at least 20 minutes uninterrupted rest if their working day is longer than 6 hours.
- Young workers are entitled to 30 minutes rest if their working day is over 4.5 hours long.

Benefits of portion control

- Keeps the food costs down
- Keep losses in food preparation and serving to a minimum

- Offer a consistent portion to customers
- Minimise waste eg leftovers
- To make a profit which is constant

AC 1.4

Factors that affect the success of Hospitality and catering providers

Reasons for failure

1. **A saturated market** – there is a fine line between competition & too many for the number of customers
2. **General business incompetence** – 46% of business fail due to lack of business knowledge
3. **Lack of capital** – not enough money to get through the first few months
4. **Location** – either not enough people walk past (foot-fall) live & work nearby
5. **Quality of life** - most restaurateurs work 60 hours a week – not the glamorous life they thought
6. **Lack of industry experience** – most successful restaurateurs tend to have previous industry experience

Factors affecting success

Trends healthy food options, pop-up bars, cafes and restaurants, cronut, clean eating, low carb, good fats,

Political factors - Increasing regulations – from government due to health issues, Brexit, use of migrant labour, migrants – ethnic foods

Media - Strong global brand, Good community reputation – children's charities / Ronald McDonald House, celebrity chefs, celebrity endorsements, Masterchef,

Reasons for failure

7. **Failure to create a good enough brand** – They did not incorporate the 12 Ps of restaurant branding.(Place, Product, Price, People, Promotion, Promise, Principles, Props, Production, Performance, Positioning and Press)
8. **Name of the restaurant is too long.** A restaurant with a name that is brief, descriptive and attractive is more likely to succeed.
9. **Lack of differentiation** - the brand is not different enough
10. **Poor financial controls** – Main costs – labour and food exceeded 60% of sales

Factors affecting success

Costs - need to make a profit. Consider cost of everything you buy and selling price.

Material - Anything involved in making product

Labour - Costs of staff

Overheads - Anything not connected with making products

Economy - when the economy slows down, business have lower sales as consumers eat out less because they have less disposable income

Environment – 3 R's, packaging, food waste, global warming, carbon footprint, clean eating

Factors affecting success

Technology - Using technology to improve service, delivery and stock control – touch screen customer ordering, EPOS systems, stock management, apps for delivery services

Emerging and innovative cooking techniques – sous vide, clean eating, steaming, new restaurants,

Customer demographics and lifestyle

– delivery services Facebook Twitter

Customer service–customer satisfaction – free WiFi, order online

Competition - Low cost food (£1 menu, coffee McDs espresso v Starbucks)

What is portion control?

- Portion control is the amount of each menu item that is served to the customer.
- It depends on the type of customer, the type of food served,
- some foods are served in very small portions due to the high cost of the item eg caviar is served by the teaspoon



Costing recipes

In order to calculate selling price and profit for dishes you need to calculate the recipe cost

Ingredient cost = $\frac{\text{Pack cost}}{\text{Pack weight}} \times \text{weight used}$

Divide by the number of portions made for the portion cost

Selling price

Selling price = $\frac{\text{Portion cost}}{30} \times 100$

Materials costs

Soap, loo roll, Menus, Order pads, Cleaning materials, flowers

Food costs

Ingredients, Pre made foods, Bar food and drink, Food and drink for staff

Costs for an establishment

Overhead costs

Heating, lighting, Furniture, Maintenance of equipment, Curtains, carpets

Personnel costs wages

Chefs, Kitchen assistants, Bar staff, Waiting staff, Managers, Casual staff

AC2.1

Describe the operation of the kitchen

- layout;
- work flow;
- operational activities;
- equipment and materials;
- stock control;
- documentation and administration;
- staff allocations;
- dress code;

Kitchen workflow

Workflow in the kitchen should follow a logical process by using different areas so that the clean stages in food production never come into contact with the "dirty" stages

1. Delivery
2. Storage
3. Food preparation
4. Cooking
5. Holding
6. Food service area
7. Wash up
8. Waste disposal



Workflow



Organising the kitchen into separate areas for separate jobs is the heart of hygienic kitchen design. The e layout will depend upon the size of the kitchen as well as on the type of meals it prepares.

Delivery

Ensure vehicles have access to the premises
Space for a goods check in area before entering the kitchen



Storage

Store close to the delivery area so delivery personnel do not enter the food preparation areas
Bulk suppliers may have minimum orders which need a lot of storage

Food preparation

- Food preparation area should be between storage and cooking areas
- Separate different processes eg raw meat separate from pre prepared foods.
- Separate high risk food area
- Need sinks, pot wash facilities and hand washing
- If separation by area is not possible, then do a preparation before cleaning down for cooking

Cooking

- Consider requirements of menu and ability of staff
- Flow must suit style of service eg fryers and grill: near to point of service for fast cooking and bulk cooking further away
- Need work surface beside cooking equipment so there is somewhere to put foods down
- Gas and electric supply near to cooking equipment

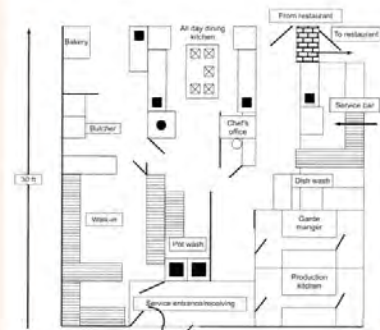


Fig. 3.9 Layout of a main kitchen

LO2 Understand how Hospitality and Catering provisions operate

Holding

- Needs to be near food service area
- Hot holding needs food to be over 63°C
- Cold holding in chillers eg desserts

Food service

- Should be located close to the cooking process so handling is minimised
- Area for plating up if A la Carte restaurant
- Replenish food during service for buffets and counters

Washing up

- Space for sinks and dishwashers
- Area for dirty items before washing and for clean items after washing needs to be segregated to prevent cross contamination
- Ventilation to remove steam

Waste

- Try to keep separate from food preparation area
- Storage that gives pest prevention



layout of a hygienic kitchen



Stock control

Perishable food and products that do not stay fresh for very long

- Fresh fruit, vegetables
- Dairy products
- Meat and fish
- Only buy enough to last a few days because they will not last
- FIRST IN FIRST OUT- stock rotation



Hygienic kitchen design

Ventilation

Effective ventilation system to remove the heat, steam and condensation from the kitchen. Bacterial growth in moist conditions



Sinks

For washing food and utensils. Hot and cold water, stainless sinks are the best



Waste disposal

Waste disposal unit or separate waste bin with a lid that can be foot opened



Hygienic kitchen design

Work surfaces

Must be strong, hard wearing and easily cleaned. Stainless steel with wheels that can be moved out of the way while cleaning



Floor

Hard wearing, easy to clean, non absorbent and non slip
Coving with the walls prevents dirt and food particles from accumulating



Walls

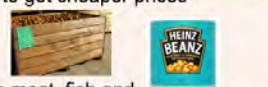
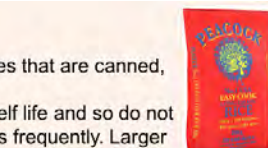
Smooth, can be tiled or lined with stainless steel as splashback light colour to show dirt easily



Stock control

Staple foods and supplies that are canned, bottled, dried or frozen
These have a longer shelf life and so do not need to be purchased as frequently. Larger amounts can be bought to get cheaper prices and can be stored.

- Condiments,
- Canned vegetables
- Frozen foods including meat, fish and deserts
- Sauces
- Flour, sugar, fat, oil
- FIRST IN FIRST OUT stock rotation



Documentation and Administration

Complete kitchen documents:

- They must be legible (readable)
- At correct interval (daily, hourly)
- Completed accurately
- They must be signed and date.

Where do you get kitchen documentation from?:

- Purchased from stationers
- Designed in-house
- Central purchasing



Documentation and Administration

Types of Kitchen Documents

- Temperature charts – fridge, freezer, display, point of sale. Taken at least twice per day.
- Time sheets – logging staff working hours
- Accident report forms – used to report any accidents and near misses
- Food safety information – blast chill records, food related incidents and cleaning rotas
- Equipment fault reports – What was the issue and how was it dealt with.
- Stock usage reports– order books, stock control sheets, requisition books, invoice, delivery notes

Documentation and Administration

Establishments have a legal responsibility to work safely and hygienically. Records kept to prove this and in case of due diligence proof

1. Temperature charts
2. Time sheets
3. Accident report forms
4. Food safety information
5. Equipment fault reports
6. Stock usage reports.



Importance of documentation

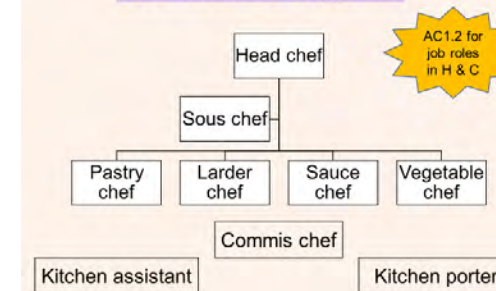
Why must they be completed?

1. Maintaining organisational procedures
2. Safety of staff and customers
3. Legal requirements
4. Complying with food safety legislation
5. Complying with accounting and taxation practices
6. Ensuring accurate payment of bills
7. Ensuring profitability of kitchen

Remember

Some information is confidential or sensitive ie staff personal information
There is a legal requirement under the data protection act to store this type of information securely

The kitchen brigade



Traditional staff structure in hotel



Kitchen Dress Code

A chef's uniform is more than a fashion statement
Each component plays a specific role in protecting potential dangers common in most kitchens

Chef's uniform

- Chef's jacket
- Chef's pants
- Hat
- Necktie/Neckchief
- Apron
- Hand towel
- Slip-resistant shoes



Kitchen dress code

Where an item of clothing is for personal protection while doing the job then the employer must provide it free of charge



AC2.1 small and large equipment

Knives

1. Store knives safely so you don't cut yourself accidentally
2. Clean knives after each use. gently scrub the knife, then wash it off with hot water. Dry with a clean cloth
3. Use knives for the purpose that they were intended. not a replacement for a screwdriver!



5. cut with a slicing action ie forwards and backwards,



PANS: Use the right size pans.
If any food sticks to the pan, soak in water



TEFLON lined pans: Avoid scrubbers which scratch, steel spoons and slicers as they cause the items to lose their non-stick quality always use a wooden spoon.



BOWLS / DISHES Use the right bowl for the dish. Wash and wipe dry after every use.



WHISKS special attention should be paid to where the wires meet at the base. Do not bang



SIEVES / STRAINERS / COLANDERS: Wash immediately after every use



WOODEN: Scrub with a brush & hot water. Dry thoroughly. If items are left wet, cracks can appear. Do not use broken wooden spoons as it can leave shavings in the food.



PLASTIC: Jugs, etc should not be kept near direct heat as it can discolour or melt



AC2.1 small and large equipment

Handling small equipment:

- 1) Do not apply too much pressure while handling these equipment as they can break easily.
- 2) Always wash and wipe well after each use personally. Do not put these in the wash up area as it can be misplaced or broken.
- 3) Keep in the correct and safe place of the kitchen for the others to use.

Large Equipment

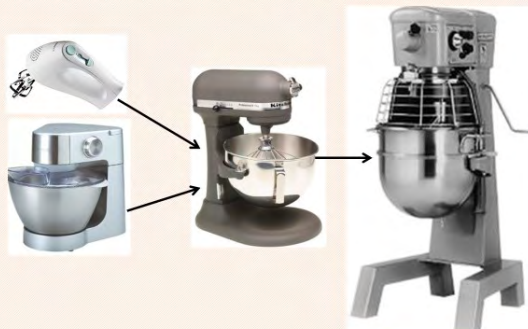
Depending on the type of establishment the equipment may be similar size and type to domestic equipment or larger scale for mass catering. All pieces of equipment are used more than domestic kitchen ware so need to have the following qualities:

- Hard wearing
- Easy to store
- Easy to clean
- Economical to use
- Suitable size for establishment

Large Equipment

	Domestic	Catering
Finish	Decorative	Plain
Materials	Plastic	Metal
Size	Small	Large
storage	Stored in cupboards	Kept out to use

Mixing



Frying



Baking



Toasting



GENERAL SAFETY PRECAUTIONS

- 1) Equipment must be turned off before cleaning.
- 2) Use correct cleaning materials.
- 3) Any specific instructions should be observed.
- 4) After cleaning, washing & drying the equipment & parts thoroughly reassemble and check that it is ready for use.
- 5) Any attachments should be stored correctly.
- 6) Ensure there is no particle of food left in the equipment, or else it can contaminate other foods when the machine is next used.
- 7) In the event of equipment not working satisfactorily, do not ignore it; report the fault

OVENS/HOBS

- Avoid spills and water; it can lead to a short circuit. To clean switch off electric supply.
- Do not use more water than necessary.
- Clean thoroughly and remove parts that can be cleaned separately & fit them correctly.
- Dry thoroughly when cleaned.



Grilling



GRILLS/ SALAMANDERS

- Ensure the tray beneath the bars are clean.
- Switch off electrical supply and clean the bars thoroughly, as well as the top.
 - Do not clean when hot.



MIXERS

- Ensure the parts underneath the arm are cleaned
- Switch off electrical supply and clean the blade/whisk thoroughly, as well as the top.
 - Do not clean when moving



FRYERS

- Check the level of oil is above the heater coils.
- Avoid spilling any water in the oil.
- Do not overheat the oil.
- When cool, drain off the oil into a container
- Lift up coils and take out containers & wash thoroughly.
- Rinse & dry well. add clean oil.



Making coffee



HOT PLATES

- Avoid spilling water on surface
- switch off parts, which are not being used.
- Cool hot plates before cleaning the sides with a wet cloth and detergent.
- Dry with a cloth



AC2.2

Describe the operation of front of house

- layout;
- work flow;
- operational activities;
- equipment and materials;
- stock control;
- documentation and administration;
- staff allocations;
- dress code;
- safety and security

Food service

Table service	Counter service	Personal service
---------------	-----------------	------------------



Click on image for 10 min video clip
<https://www.youtube.com/watch?v=10pLjYt104>

Food service

Food can be served in many ways. The type of service depends on the following factors:

- The type of establishment or where it is
- The type of food or menu being served
- The cost of the meal or food
- The time available for the meal
- The type of customer
- The number of customers expected
- The availability of skilled serving staff



Counter service

Method	Description	Comments
Cafeteria (free flow)	<ul style="list-style-type: none">• A single long display counter but can sometimes be multiple counters	<ul style="list-style-type: none">• Queuing is often required• It can be fast so can produce a high turnover• A simple, basic experience for customers• There can be impulse buying from displays• Low skill of serving staff
Buffet	<ul style="list-style-type: none">• Set up in a room usually along one long table. It can be self service or staff can serve customers.• Carvery service is where joints of meat are carved in front of customers and plated	<ul style="list-style-type: none">• Creates a more informal function than plated or silver service meals• It can be fast and simple• Poor portion control• Needs efficient clearing away of crockery
Fast Food	<ul style="list-style-type: none">• Takeaway with eat-in areas where customers collect food from one small counter	<ul style="list-style-type: none">• A quick and simple method of service• Can be a very high turnover of food• Often a limited choice of menu• Use of disposable packaging and utensils because of the type of food and service



Restaurant manager

- The restaurant manager is in overall charge of the restaurant,
- Takes bookings, relays information to the head chef, completes staff rotas, ensures the smooth running of the restaurant

Maitre d'Hôte



Head waiter (ess)

- Second in charge of the restaurant,
- Greets and seats customers, relays information to the staff,
- Deals with complaints and issues referred by

Wine waiter

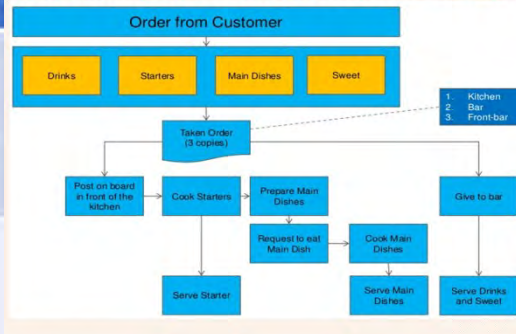
- Le sommelier*
- Specialises in all areas of wine and matching food, advises customers on their choices of wine,
 - Wine waiters serve the wine to the customer and can

Table service

Method	Description	Comments
Plate	<ul style="list-style-type: none"> Pre-plated meals from the kitchen Can be a basic plated meal or a decorated nouveau cuisine style 	<ul style="list-style-type: none"> From café's to luxury restaurants Good portion control methods Consistent presentation of food Relies more on skilled kitchen staff than the skill of serving staff Time consuming for the kitchen
Family	<ul style="list-style-type: none"> Dishes are put on the table where spoons are provided and the customers serve themselves. Suited to ethnic restaurants such as Indian, Chinese and Spanish tapas 	<ul style="list-style-type: none"> Sociable Less portion control Easy and quick to serve Suits families with young children Needs big tables to fit all of the dishes on
Silver	<ul style="list-style-type: none"> Food is served by the staff using spoon and fork 	<ul style="list-style-type: none"> A more personal customer experience Can be slow service Portion control may fluctuate Staff costs are high as it needs more serving staff
Gueridon	<ul style="list-style-type: none"> Food is served from a side table or a trolley using a spoon and fork Sometimes dishes are assembled or cooked in front of the customer 	<ul style="list-style-type: none"> Very specialist, skilled service Individual attention Very high staff and menu costs Time consuming

LO2 Understand how Hospitality and Catering provisions operate

Workflow between Front of House and Kitchen



Equipment and Materials

Use and care of hand equipment:

- Choose cutlery carefully – plain cutlery is easier to clean than patterned cutlery and stainless steel cutlery resists scratches.
- Cutlery should be stored carefully to avoid scratches and marks.
- Glassware should be washed, stored and handled carefully to avoid breakages.
- Cutlery should be dishwasher proof.
- Cutlery should be stacked carefully and covered if possible to prevent dust and germ settling.
- Store linen, same sizes together in a cupboard away from dust

Equipment and Materials

Hand Equipment

This includes the crockery, cutlery, table linen and glassware used to lay tables, as well as serving equipment and the tables, chairs and sideboards found in food service areas.

The type used will depend upon the type of menu and service offered, the cost, and the washing up facilities. Many fast-food restaurants use disposable items and have easy to clean tables. High class restaurants on the other hand, may use fine porcelain crockery, linen tablecloths and napkins, crystal glasses and silver cutlery.



Equipment and Materials

Powered Equipment

A wide range of powered equipment is used in food service areas. This includes hand-held credit or debit payment facilities, coffee machines, toasters, vending machines, flambé trolleys and hot and cold service counters. EPOS (electronic point of sale) can be used to send orders from the restaurant and bar to the kitchen and reception – this assists staff with the customers bills.



Equipment and Materials

Use and care of powered equipment

- All electrical equipment must be checked for safety every year
- All equipment on view in a food service area should be spotlessly clean and polished daily
- The temperature of hot and cold food service areas should be monitored daily
- Coffee machines should be kept clean at all times and serviced regularly

Task Find out how EPOS works

Record keeping – administration

Records kept
Stock control
Personnel records
Health and safety, Food hygiene
Booking/reservations
Purchasing
Financial vat etc

Stock control

Monitor stock levels for re ordering
Decide frequency of stock check
First in First out for items with a shelf life
Stock level checks could be for

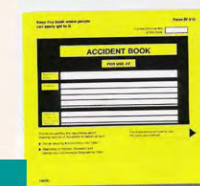
- Wines
- Spirits
- Coffee
- Order pads
- Garnishes
- Cutlery
- Crockery
- Drinks in bar area
- Nuts, breadsticks
- Other consumables

Personnel records

- Hours worked
- Personal details
- Wages
- Taxation
- National insurance
- Training
- Accidents
- Staff rotas and timetables

Health and safety, hygiene

- Fire certificate
- Staff training records
- Accident book
- Food hygiene checks
- Cleaning checks
- First aid records



Personal service

Method	Description	Comments
Tray or Trolley	<ul style="list-style-type: none"> An assembled meal provided or a choice of food and drink from a trolley 	<ul style="list-style-type: none"> Available where needed Trays are used in airlines, hospitals and hotel rooms (room service) Trolleys are used in offices, airlines and trains
Vending	<ul style="list-style-type: none"> Sold from a machine 	<ul style="list-style-type: none"> 24 hour service if required Drinks, snacks and meals can be offered including hot meals
Home Delivery	<ul style="list-style-type: none"> Delivered to house individually or on a round 	<ul style="list-style-type: none"> Usually Ethnic such as Indian and Chinese. Also 'Meals on Wheels'

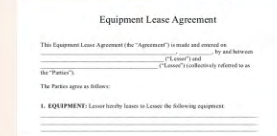
Waiting staff

- Serve customers, clear and lay tables, check the customers are satisfied with the food and service.
- May give advice on choices from the menu and special order foods



Purchasing

- Food and drink orders
- Packaging orders (eg take away)
- Equipment
- Tables, chairs etc
- Consumables and disposables
- Cutlery and crockery
- Staff uniforms
- Leased items



Staff allocation

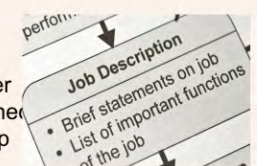
The restaurant manager coordinates all activities at the restaurant.

The restaurant manager must define the tasks that staff must perform Consider

- The size of the restaurant,
- Flow of customers, type of clientele and
- Menu offerings
- Different skills and personnel requirements related to changes of volume and customer preferences.

Staff allocation

Each employee must have a Clear job description which enables the restaurant manager to ensure that the duties assigned to staff members do not overlap and to control staffing costs



The restaurant manager allocates the number of personnel to shifts according to the demand forecasts for the day.

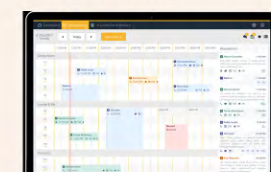
Staff allocation

A restaurant that experiences peak and slow seasons has a different staffing schedule than one with a steady flow of customers throughout the year. The restaurant manager determines whether to hire temporary workers supplement the permanent workers when the season is at its peak



Bookings and reservations

- Electronic booking system
- Electronic reservations system
- Diary with bookings and reservations
- Feedback forms

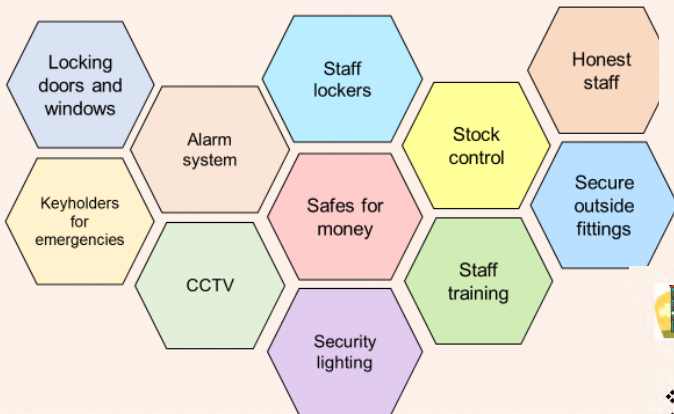


Uniform / dress code

- Some establishments have staff wear the same uniform; this makes them easily identifiable for staff and customers. The uniform may change depending on which area of the establishment they work in.
- Protective clothing as part of a uniform must be paid for by



Safety and security



Health and safety

All businesses should carry out a regular health and safety risk assessment. This involves looking at your business and identifying potential hazards that may affect staff or members of the public. Your risk assessment should tell you whether you are doing enough to mitigate these risks.

See AC3.1 for more details

Must have a comprehensive health and safety policy that demonstrates to your staff how hazards and other issues are to be dealt with, and that you are able to produce this policy for an inspector .

Health and safety

As there are risks to the public ie customers of the establishment as well as staff, the establishment should have both public liability insurance and employers liability insurance . As well as complete risk assesments for the public areas of the



Describe The Front of House Operation

Task = Design the front of house operation for a new café that is opening in your town. Incorporate the; style of the restaurant and work flow, equipment and materials needed, how you will control stock, documentation used, staff allocation and dress code and safety and security.

= Visit a local café (or watch a you tube clip) describe the operation layout and work flow, equipment and materials needed, how you will control stock, documentation used, staff allocation, dress code and safety and security.

LO2 Understand how Hospitality and Catering provisions operate

AC2.3 explain how Hospitality and Catering provision meets customer requirements

- Customer**
 - leisure
 - business/corporate
 - local residents
- Requirements**
 - customer needs, expectations
 - customer trends
 - customer rights, equality

Types of establishments-recap

Commercial

- Hotel
- Bed and breakfast
- Guest houses
- Holiday parks

Residential establishments

Non-commercial

- Hospitals
- Care homes
- Prisons
- Armed services

- Café
- Pub
- Restaurant
- Fast food outlets
- Take away outlets
- Food trucks

Non- residential establishments (food only)

Types of customer

Leisure	Local residents	Business / corporate
Customers who visit the establishments in their leisure time e.g. a meal with friends, a family day out, tourists,	Customers who live in the local area who visit the establishment often eg regular Sunday lunch, or get together	e.g. business lunches. Use business facilities in establishment for meetings or presentations . Courses and conferences

Business customers requirements

- Dedicated corporate (business) contact at establishment
- Discounted rates
- Meeting rooms
- Water, juice on tables
- Presentation equipment, projector, tv,
- Office facilities- printer, phone, fax, internet, stationery
- Tea and coffee for breaks
- Lunch or other meals- buffet or restaurant
- Accommodation if attendees are from a long distance
- Quick service for lunch meetings

leisure customers requirements

- Value for money
- Good facilities
- Families want child menus, play area, child friendly
- Tourists want local food, easy to communicate
- Older people may want more formal service
- Good customer service
- Varied choice of menu
- Dietary needs eg allergies, intolerances, vegetarian catered for without having to ask for special foods
- Facilities for physically impaired customers

local customers requirements

- Value for money
- good standard of customer service so they return
- Catering for local needs (culture, religion)
- Consistent dishes served
- Loyalty schemes
- Recognised by staff- feel welcome
- Menu specials
- Theme nights
- OAP discount day
- Child friendly
- Entertainment
- Mailing list or email for special offers

Customer trends

Customers are influenced by

- TV
- Magazines
- Health
- Travel abroad
- Technology
- Ratings and reviews



"Delish!"
Reviewed 2 weeks ago via mobile
Nice and cozy restaurant with super friendly staff. They made delicious pizza and great tasting mohoito. Loved it!

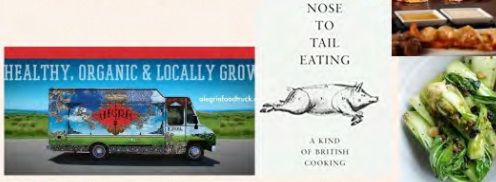
Latest trends 2016-17

- Traditional foods served new ways
- Authentic ethnic food eg Korean, Mexican, Indian
- Less sugar in foods
- Use of nuts and seeds and plant milks
- Clear lists of ingredients on menus
- Increased use of spices



Latest trends 2016-17

- New ways of cooking, barbeque, teppenaki
- Nose to tail – using less conventional parts of animal so none is wasted
- Premium local foods
- Food truck style dishes
- More vegetable dishes



Why is customer service so important in the hospitality industry?

Customer service is what an establishment does in order to meet the **expectations** of their customers and generate customer satisfaction.

- So customers return.**- People will not return to a place where they were not satisfied with the service. Repeat business means a successful business.
- Exceeding expectations**-This makes repeat business more likely
- Growth of the business**- If customers receive a high standard of service and return, they will spend more money and also tell other people about the business

What is good customer service?



Customer rights.

- The right to be protected (against hazardous goods)
- The right to be informed (about quality, quantity, allergies etc)
- The right to have their complaints be heard
- The right to seek redressal (compensation.)
- the right to receive satisfactory goods that match their product description



A restaurant hasn't kept my booking. can I claim compensation? When you book a table, a restaurant has a contractual obligation to provide it. If it fails to, you may be entitled to compensation.
Do I have to pay a service charge if the service is poor? If you go out for a meal and receive poor service you have rights that protect you from having to pay any service charge.
I got food poisoning while eating out. can I get my money back? Under the Consumer Rights Act, you can claim compensation or a refund if you get food poisoning from a restaurant.
I had poor quality food at a restaurant. should I have paid? You have a right to expect food of satisfactory quality and 'as described' on the menu. If it is not, you shouldn't have to pay for it.



Equality and discrimination

You must be treated equally with regard to



- Age (except where too young)
- Disability and ability to access
- Gender or gender reassignment
- pregnancy and maternity
- Race
- Religion or belief
- Sexual orientation

7. The James family want to stay in a hotel in London. Mr James is a wheelchair user, and he has two children, one aged 6 years and the other 18 months. This is the family's first visit to the city and they want to make the most of the attractions on offer.



- (a) Explain how the accessibility in this hotel will meet the needs of the James family. [6]
(b) Explain how the free Wi-Fi service in this hotel will meet the needs of the James family. [4]

AC3.1 personal safety responsibility

Abbreviation	Full name
HASAWA	Health and safety at work act 1974
RIDDOR	Reporting of injuries diseases and dangerous occurrences regulations 1995
COSHH	Control of substances hazardous to health regulations 2002
PPER	Personal protective equipment at work regulations 1992 http://www.hse.gov.uk/pubns/indg174.pdf
MHR	Manual handling operations regulations 1993

Health and safety at Work Act 1974

- This act covers all aspects of health and safety at work.
- All employers must take care of their own health and safety and not endanger others.
- The health and safety executive (HSE) exists to protect peoples health and safety by ensuring risks are properly controlled.
- HASWA also protects other people from risks to their health and safety arising out of the activities of people at work.
- The law applies to everyone at work and anyone can be prosecuted if they do not act safely

Duties of employers HASAWA

- To protect the health, safety and welfare of staff
- Carry out risk assessments
- To provide and maintain safe equipment and safe systems of work
- Safe use, handling, storage and transport of articles and substances
- Provide a safe workplace with a safe entrance and exit
- Provide information, instruction, training and supervision on how to work safely
- Provide a written safety policy

Duties of employers HASAWA

- Make sure there are toilets, places to wash and drinking water for workers
- Make sure that there is first aid provision
- Provide PPE for jobs if needed
- Have insurance to cover injury or illness at work
- Ventilation lighting and emergency exits

- provide a health and safety law poster entitled "Health and Safety law: What you should know" displayed in a prominent position and containing details of the enforcing authority.

Duties of employees HASAWA

- To take care of themselves and others
- To follow safety advice and instructions
- Not interfere with any safety device
- To report accidents
- To report hazards and risks



LO3

Understand how hospitality and catering provision meets health and safety requirements

H.S.E Health and Safety Executive.

- H.S.E stands for the **Health and Safety Executive**.
- The H.S.E will investigate any complaints and safety incidents.
- The H.S.E employ Health and Safety Enforcement Officers who will inspect safety procedures being used.
- They have the power to serve notice and/or issue legal proceedings over safety incidents.
- It is compulsory to contact the H.S.E if an operative has an absence of more than three days following an accident at work.

Prevention of Falls

- Employers must ensure that any working areas above the ground or below (e.g. inspection pits) are guarded or protected
- If you have to work above ground level you must be kept safe e.g. by wearing a safety harness if it is an area such as a flat roof which is not guarded
- Stepladders should only be used for jobs that do not take long and they must be safe and stable when in use
- Slips prevention with non slip floors or shoes

Environment

- There must be sufficient space to work safely and enough lighting and ventilation
- Workplaces must be kept generally clean and tidy
- Chairs must be safe and comfortable
- Temperature – must be "reasonable"
 - Reasonable means at least 16°C for office work and 13°C where there is physical work
 - In very hot weather, employers only need to provide local cooling e.g. fans

First Aid

- Employers have to provide first aid facilities at work
- As a minimum, there should be a fully stocked **green first aid box** and a person appointed to take charge in an emergency
- Some workplaces have qualified first aiders and first aid rooms
- Green and white notices** should inform you where the first aid box is kept and who the first aider(s) or appointed person(s) is/are



Fire safety

- Employers must have arrangements in place
 - to prevent fires
 - To raise the alarm
 - To fight fires (fire extinguishers)
- Emergency evacuation (including a pre-arranged meeting place for staff to assemble following evacuation)
- Notices showing the safe evacuation routes from buildings should be **green** and white



Moving and Handling

- You may be asked to lift, carry push or pull a load at work
- You should always follow safe practice when doing any moving and handling
- You should never attempt to move anything that is too heavy or difficult – ask for help
- Employers should provide equipment to help you to move heavy or difficult loads



Equipment

- The term covers everything from a hand tool to a large machine like a stand mixer
- Before you use equipment at work you should be shown how to use it safely
- You should never use equipment that you are not trained or authorised to use
- Electrical equipment should have a sticker on it indicating that it has been P.A.T. tested and giving a date when the next test is due



Safety of equipment

- Only use equipment for which you have been authorised and/or trained
- Always wear any personal protective equipment such as goggles or gloves if you have been instructed to do so
- Carry out a visual check of equipment before you use it and look for any obvious defects
- If you notice something wrong or unusual, report it to your manager and put the equipment out of use



Control measures

- Control measures are put in place by employers to protect staff from hazards and risks that have been identified
- The hierarchy of controls
- Employers are allowed to take costs into account and work their way down the list until a suitable solution at reasonable cost has been identified
 - Elimination
 - Substitution
 - Controlling risks at source
 - Training, instruction and supervision
 - Personal protective equipment

Trips, slips, falls - personnel

Persons at risk	Teachers, Teaching assistants, Students
Hazards	Trips slips falls
Control measures	Training and instruction from teacher Adequate housekeeping Work areas well lit Care exercised with known hazards Spills cleared up ASAP
Risk calculation 2x3=6	
Recommended	Display signs if needed for new hazards

Accidents at work

- All accidents, however minor, should be reported to your supervisor
- Similarly, all incidents of ill-health (caused from work) should also be reported
- Accidents include those that resulted in injury or damage and "near misses" – those which **COULD** have resulted in injury or damage
- Your supervisor will decide if the incidents needs to be recorded in the accident records
- Violent incidents are included (this includes verbal threats)

Enforcement

- Inspectors from the Health and Safety Executive (HSE)
 - Manufacturers; schools and colleges; repairers; specialist places like hospitals and power stations
- Environmental Health Officers
 - Places where the public go like shops, offices, leisure facilities
- Fire Officers
 - just enforce the bits relating to fire safety

- | | |
|----------------------------|----------------------------------|
| Magistrate's court | Crown court serious offences |
| • £20,000 per offence | • Unlimited fines |
| • Up to 6 months in prison | • Imprisonment for up to 2 years |

COSHH

SUBSTANCES COVERED BY COSHH:

- Chemicals including cleaning chemicals
- Micro-organisms
- Dusts
- Medicines, pesticides, gases
- HSE list (Health and safety executive)



Possible health problems

- Contact causing irritation
- Sensitising substances
- Toxic fumes
- Carcinogenic
- Infectious
- Fire, explosion
- Environmental harm problems



Employees responsibilities under COSHH

- Use control measures and facilities provided by the employer
- Ensure equipment is returned and stored properly
- Report defects in control measures
- Wear and store personal protective equipment (PPE)
- Removing PPE that could cause contamination before eating or drinking
- Proper use of washing, showering facilities when required
- Maintaining a high level of personal hygiene
- Complying with any information, instruction or training that is provided

Every substance that is a hazard has a COSHH safety sheet



This sheet deals with opening, tipping sieving flour and making dough
Why could this be a hazard?

COSHH symbols on containers



Safety data sheet

This is a safety data sheet for Fairy washing up liquid. It may not be a hazard to you if you only wash up once a day but if you washed up for long periods of time as part of your job it could become an irritant or hazard



Common substances and controls

- Cleaning chemicals
- Washing up liquid
- Cooking fumes
- Smoke
- Oils
- Gas
- Wear gloves
- Extractors over cookers
- Face mask



What is RIDDOR?

- RIDDOR is the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013.
- The law requires employers and other people in control of work premises (known as the 'responsible person') to report to the Health and Safety Executive (HSE) and keep records of the following:

- work related fatalities
- work related accidents causing certain serious injuries (known as reportable injuries)
- certain work related diagnosed occupational diseases

What has to be reported to HSE

- Death
- Injuries resulting in over 7 days off work (7 day injuries)
- fractures (except fingers, thumbs and toes);
- amputation of limbs or digits
- loss or a reduction of sight;
- crush injuries
- serious burns (over 10%)
- unconsciousness caused by a head injury or asphyxia;
- any other injury needing admittance to hospital for more than 24 hours. Hypothermia

Who should report an Accident

1. An employer or person in charge of the premises
2. A self employed person
3. A member of the public
4. An injured person or their representative



Occupational diseases

- carpal tunnel syndrome
- severe cramp of the hand or forearm
- occupational dermatitis
- hand-arm vibration syndrome
- occupational asthma
- tendonitis or tenosynovitis of the hand or forearm
- any occupational cancer
- any disease attributed to an occupational exposure to a biological agent.

What must be reported

- An accident is a separate, identifiable, unintended incident that causes physical injury.
- Also includes acts of violence to people at work.
- Not all accidents need to be reported, a RIDDOR report is required only when the accident is work-related;
- and it results in an injury of a type which is reportable. When deciding if the accident that led to the death or injury is work-related,
- the way the work was organised, carried out or supervised;
- machinery, substances or equipment used for work;

How do you report an accident

Accidents are reported to the **HSE** Health and Safety Executive

- This is most easily done by [reporting online](#).
- Alternatively, for fatal accidents or accidents resulting in specified injuries to workers **only**, you can phone 0345 300 9923.
- NB: A report must be received within 10 days of the incident.

What records need to be kept?

If you do not keep a copy of the online form your records must include:

- the date and method of reporting;
- the date, time and place of the event; personal details of those involved;
- and a brief description of the nature of the event or disease.

Record other accidents resulting in injuries where a worker is absent from work or is incapacitated for more than 3 days.



Penalties

- An employer who fails to comply with RIDDOR may be liable on conviction to:
- a fine not exceeding level five on the standard scale, currently £5,000 in a magistrate's court
- an unlimited fine in a Crown Court.
- Note: Accidents or incidents may have been caused by breaches of other health and safety legislation. The penalties for breaching other legislation may be heavier than those for failing to comply with RIDDOR.

Not all reportable incidents will be investigated by HSE. All incidents should be analysed and lessons learned and shared.

Personal Protective Equipment at Work Regulations 1992 (PPER)

- PPE is equipment that will protect the user against health or safety risks at work. Includes clothing and other items worn by staff to protect themselves from work hazards
- It can include items such as Gloves, goggles, hard hats, hearing protectors, warm clothing (in cold conditions), safety shoes or boots, respirators etc
- Hearing protection and respiratory protective are not covered by these Regulations there are specific regulations that apply to them. these items need to be compatible with any other PPE provided.

PPE in catering situations

The requirements are set out in the **PPE Regulations 1992**. In addition, the Food Safety (General Food Hygiene) Regulations 1995 require every person working in a food handling area to wear suitable, clean, and (where appropriate) protective clothing

- non-slip shoes where there is a slipping risk;
- 100% cotton garments (for example, chefs' whites) where there is a risk that the material may aggravate burns in the event of a fire
- where caustic cleaning substances are used, long-sleeved vinyl gloves, goggles, a visor and possibly respiratory equipment.

PPE in catering situations



Employers responsibilities under PPER

- Provide the PPE (free) if a risk assessment has shown it to be necessary
- It must be exclusively for you and fit you comfortably
- Provide somewhere to store it
- Provide facilities for it to be cleaned and maintained
- Replace it when necessary
- Provide training (if necessary) in how to wear/use it properly

Employees responsibilities under PPER

- You **must** wear the p.p.e. if it has been provided for you. You could be held personally liable if you had an accident which could have been prevented by you wearing your p.p.e.;
- You must care for it, store it and clean it as necessary;
- You must report any defects.

When selecting PPE

- choose good quality products which are CE marked in accordance with the PPE Regulations 2002
- choose equipment that suits the wearer – consider the size, fit and weight; you may need to consider the health of the wearer, eg if equipment is very heavy,
- let users help choose it, they will be more likely to use it.

Using and distributing PPE to your employees:

- instruct and train people how to use it;
- tell them why it is needed, when to use it and what its limitations are;
- never allow exemptions for jobs that 'only take a few minutes';
- if something changes check the PPE is still appropriate

Front of house

- Exposure to cleaning products and other chemicals.
- Musculoskeletal injuries from standing for long hours,
- working in awkward positions or
- performing repetitive manual tasks
- Lifting or carrying heavy trays or other objects.
- Noise exposure.
- Dealing with difficult or physical customers.
- Long hours of work or extended work days
- Cuts from handling broken glassware
- Burns from hot plates, coffee

Manual Handling Operations Regulations 1992

- Require you to avoid any manual handling operations at work which involve a risk to health – so far as reasonably practicable.
- If it is not reasonably practicable to avoid any manual handling operations, you must carry out a manual handling risk assessment to identify how the risk is caused, so each factor can be addressed and measures taken to control the risk.
- Provision of information, instruction and training to staff are legal requirements

<http://www.hse.gov.uk/pubns/cas28.pdf>

What Is Manual Handling?

- Any transporting or supporting of a load by hand or bodily force
- Lifting, putting down, pushing, pulling, carrying or moving



Assessing manual handling risk

Task: What is it about the way that we organise the task which might affect our health and safety?

Individual Capabilities: What is it about the people who are doing the job that might affect their health and safety?

Load: What is it about the load which might affect our health and safety?

Environment: What is it about the place which might affect our health and safety?

Risk assessment

start by considering the jobs carried out in the kitchen and the staff who work there. Look at the areas of work where there are most likely to be significant risks and prolonged exposure concentrate on:

- the handling tasks workers are doing;
- the loads they are lifting;
- the environment they are working in;
- the individual capabilities of each worker;
- the positions they need to get in to do the job, eg twisting and stretching;
- the time spent on each task, eg regularity of lifting and break times.

Food preparation

- repetitive motion of the hands, wrists and shoulders;
- forceful lifting or carrying of heavy bowls or pots;
- awkward bending and twisting of the back;
- awkward reaching

- utensils and knives with ergonomic handles designed for comfort and those that allow for power grips;
- Provide knives that are in good condition and kept sharp to reduce the force required by the user.
- chopping machines for vegetables to reduce manual chopping or buy in pre-prepared vegetables;
- WC

Dishwashing

- lifting heavy pots;
- awkward bending and twisting when leaning over sinks for long periods;
- repetitive wrist and shoulder movements when scrubbing pots;
- repetitive reaching into pots;
- forceful arm exertions when scrubbing pots
- dishwashers if appropriate;
- false bottoms in deep sinks to reduce awkward bending at the waist;
- assess the weight of a pot before lifting it;
- keep pots close to the body when lifting and bend the knees rather than the back;
- point toes in the direction they are reaching to avoid twisting.

Ovens and steamers

- Ovens with side-hinged doors rather than bottom hinged doors allow easier access to items in the oven.
- Using oven racks between waist and elbow height to minimise awkward posture.

Soup kettles and heavy pots

- Large soup kettles with extended handles make it easier to tip the kettle when pouring soup into smaller containers.

Cleaning

- forceful exertions;
- awkward shoulder or back postures;
- cuts, bruises, pressure injuries and sore skin.
- long-handled brushes where reaching is required;
- cleaning tools that have soft rubber-like handles to reduce gripping force;
- a platform of adequate size to minimise reaching.

Removing waste

- lifting heavy rubbish bags, which carries the risk of forceful exertion.
- provide smaller refuse bags;
- put up signs to remind staff not to overfill them.

AC3.2 Risks to personal safety in Hospitality and Catering

AC3.2 Risk Assessment Starter

Can you spot the 17 hazards in the image below. Write them down in your book



Answers

- Holes around the pipe and the floor (access to pests)
- The bottom of the door has been gnawed.
- There is a hole in the dry store cupboard
- The window in the door is broken.
- The window is open and flies are in the room.
- The bin is too full and overflowing.
- There's a dead rat
- Droppings in front of dry store cupboard
- The fan cover is broken
- Packages have been gnawed.
- The cable on the toaster has been gnawed.
- Infested delivery boxes
- The ham has been left out on the bench.
- Spider webs in the dry store cupboard
- The bread/toast has been chewed.
- Potatoes aren't securely stored/covered in dry store.
- The door on the cupboard has fallen off (food attracts pests)

Legislation

The Food Safety Act 1990

legislation requires businesses to meet certain standards in health, hygiene and safety. If a business does not meet these it could receive fines, suspension or closure of the business and in some cases imprisonment. For all these reasons employers want their employees to work in ways that are safe, healthy and hygienic and to ensure the workplace is kept clean and safe.

Reputation

Accidents and injuries can lead to employees having time off work, increased insurance costs and possible compensation to employees. Reviews and news media-customers will not want to visit a business which is unsafe no one wants to become ill from eating there

Hayling Island restaurant death 'caused by food injury'



Christmas Day diner dies after food poisoning bug found



Assessing risks

To assess the level of risk of any hazard it is important to conduct a risk assessment. In a business there are five steps to risk assessment.

- Identify the hazard.
- Decide who might be harmed and how.
- Evaluate the risk.
- Record the findings and implement them.
- Review the assessment and update if necessary.

Assessing risks

Risk/Hazard	Location	Who is at risk? (Employer, Employee, Supplier, Customer)	Level of risk. (High, Medium, Low)
Incorrect storage of food.	Kitchen	Customer	High
Unclean food area.	Kitchen	Customer	High
Cleaning fluids not stored correctly.	Housekeeping.	Employee, Customer.	High
Faulty Wiring	Bedroom	Employee, Customer.	High

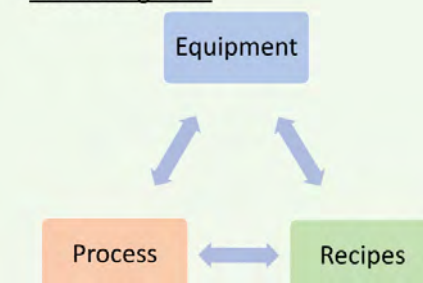
Risk Assessment

When you carry out a risk assessment you need to think about how likely it is to happen and what the consequence might be if it did. E.g. A spillage is very likely to happen in a restaurant kitchen.

probability	Severity
1 Not very likely to happen	1 If it did happen the harm would be minimal and could be dealt with by an untrained person (e.g. might just need a plaster)
2 1 in 4 (25%) chance	2 Might need to visit a professional for advice or treatment (e.g. might need stitches)
3 2 in 4 (50%) chance	3 Would take a few weeks to heal, but not a serious injury
4 3 in 4 (75%) chance	4 Could cause serious injury or damage, but would eventually be resolved (e.g. broken leg)
5 Very likely to happen	5 The result could be permanent disability, destruction of a building or in extreme cases, death.

What do you think the severity might be if someone was to slip on a spillage in a kitchen?

Assessing risks



Food processor

Persons at risk	Teachers, Teaching assistants, Students
Hazards	Trap cut
Control measures	Training and instruction from teacher Supervision Processor assembled correctly Safety cut out switch Care when cleaning and dismantling
Risk calculation	2x2=4
Recommended	None

Use of knives

Persons at risk	Teachers, Teaching assistants, Students
Hazards	Cut
Control measures	Training and instruction from teacher Supervision when using knives Knives stored in a secure place Knives sharpened as appropriate
Risk calculation	2x3=6
Recommended	Used under supervision

Ovens- items in and out of ovens

Persons at risk	Teachers, Teaching assistants, Students
Hazards	Burn
Control measures	Training and instruction from teacher Oven gloves to be used Oven gloves must be dry Care taken putting in and removing items from the oven
Risk calculation	2x3=6
Recommended	Use under supervision

The hob- handling hot foods

Persons at risk	Teachers, Teaching assistants, Students
Hazards	Burn scald
Control measures	Training and instruction from teacher Supervision Extreme care taken when using the hob Remove from heat if burning of food occurs Bring to attention of teacher if severe
Risk calculation	2x3=6
Recommended	Use under supervision

Burns and scalds- personnel

Persons at risk	Teachers, Teaching assistants, Students
Hazards	Burn scald
Control measures	Training and instruction from teacher Supervision with potential dangers Care when handling Use dry oven gloves
Risk calculation	2x2=4
Recommended	

Storage – growth of pathogens

Persons at risk	Teachers, Teaching assistants, Students
Hazards	Growth of food pathogens
Control measures	Training and instruction from teacher High risk foods to be stored in refrigerator when not in use Refrigerators maintained at 1-5°C Completed protein based foods to be left to cool before refrigeration
Risk calculation	2x1=2
Recommended	Signs on refrigerator door

Cooking – survival of pathogens

Persons at risk	Teachers, Teaching assistants, Students
Hazards	Survival of food pathogens
Control measures	Training and instruction from teacher High risk foods to be cooked thoroughly Test by cutting open Test by juices running clear Test by temperature probe to 70-75°C Hot foods not placed in refrigerator
Risk calculation	2x1=2
Recommended	Cooked foods to be refrigerated when cooled

Ragu (Bolognese sauce)

Potential risk	Measure	Likelihood
Cuts from using a knife unsafely	Demonstrate safe use of knives and monitor students' use	Low
Cuts due to running in room with knife	Remind students of rules in kitchen and instill safe conduct	Low/Med
Dirt or food poisoning bacteria present on raw food, causing cross contamination	Wash vegetables	Low
Burn from using the hob and/or hot saucepan	Demonstrate safe use of the hob and monitor students' use	Low/Med
Perishable foods are not stored correctly leading to contamination	Ensure that meat is kept in the refrigerator before use and that non-perishables are kept in clean, dry containers, e.g. dried pasta	Low

Fajitas

Potential risk	Measure	Likelihood
Dirt or food poisoning bacteria present on raw food, causing cross contamination	Wash vegetables before use	Low
Cross-contamination from raw meat	Cut raw meat on a separate chopping board with a clean knife	Low/Med
Survival of pathogens on cooking	Cut through to test meat is cooked	Low/Med
Burn from using the hob and/or hot frying pan	Demonstrate safe use of the hob and monitor students' use	Low/Med
Frying pan knocked off hob	Ensure that frying pan handles are turned away from the edge	Low/Med
Cuts from using a knife unsafely while preparing the vegetables	Demonstrate safe use of knives and monitor students' use	Med

Handmade pasta

Potential risk	Measure	Likelihood
Burn to hand while using the hob	Demonstrate safe use of the hob and monitor students' use	Low
Scalds from hot water while draining pasta	Demonstrate how to drain hot water away from pasta and monitor students' use	Low/Med
Cuts from using pasta machine unsafely	Demonstrate safe use of pasta machine	Low

Scone base pizza

Potential risk	Measure	Likelihood
Out of date date-marks	Always read the date-mark	Low
Dirty hands used for rubbing-in	Wash hands thoroughly and regularly during cooking	Med
Burn from placing and removing pizza in oven	Demonstrate safe use of the oven, promote the use of oven gloves and monitor students' use	Low/Med
Cuts from using a knife unsafely	Demonstrate safe use of knives and monitor students' use	Med
Cuts from using a grater unsafely	Demonstrate safe use of graters and washing up with a brush	Low
Perishable foods are not stored correctly, leading to contamination	Ensure that cooked meat is kept in the refrigerator before use and that non-perishables are kept in clean, dry cupboards	Low

Risk Assessment

Carry out a risk assessment for one of the establishments listed below;

- Pub
- Restaurant
- Hotel
- Fast food outlet
- B&B
- Take away

Hazard	Type of hazard	Who is at risk?	Likelihood of occurring	Severity

Risk and Security

Workers can be at risk from security hazards in the same way they are from safety hazards. Security risks include

- Disagreements between customers
- Customers being intoxicated (alcohol)
- Customers who have used drugs
- Verbal abuse
- Physical assaults



Who is at risk?

Staff (and customers) may feel threatened by physical assaults, threats and intimidation and verbal abuse

People at risk includes

- Young workers who have less experience
- Night shift workers where there are less people
- Lone workers eg people working early or late
- Customers in the establishment



Risk factors

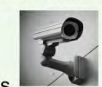


- Handling large amounts of money in open areas
- Face to face contact with customers
- Opening late in the evening or early in the morning
- Dealing with customer complaints or disputes
- Selling high value items such as alcohol
- Establishment in an isolated area eg country pub
- Poor lighting
- Establishment in a high crime area

Prevention



- Brightly lit areas
- CCTV
- Easy escape routes
- Area for handling larger sums of money
- Appoint more senior staff to deal with problems and complaints
- Train staff to diffuse angry customers
- Contact local police if necessary
- Make sure lone workers are aware of risks
- Keeping doors and windows



Instruction	Guidelines	Sign
Stop	Prohibition Sign • Round shape. • Black pictogram. • White background. • Red edging.	
Danger	Warning Sign • Triangular shape. • Black pictogram. • Yellow background. • Black edging.	
Obey	Mandatory Sign • Round shape. • White pictogram. • Blue background.	
Safety	Emergency Escape or First Aid Sign	
Fire	Fire Fighting Sign. • Rectangular or square. • White picture. • Red background.	

Understand how hospitality and catering provision meets health and safety requirements

Reducing security risks



Reducing safety risks



AC3.3 personal safety recommendations

Health and safety statistics

- 1.2 million people suffering work related illness
- 142 workers killed at work
- 611,000 injuries reported under RIDDOR
- 27.3 million working days lost to work related illness and injury
- £14.3 billion estimated cost of injuries and illnesses a year

The top four injury types in Hospitality and catering are

- Cuts,
- Burns,
- Sprains & strains,



How Can Cuts Be Prevented?

- Be careful when cleaning knives or blades.
- Always look at what you are cutting.
- Place a damp cloth under cutting boards to prevent slipping.



How Can Cuts Be Prevented?

- Prevent machine cuts by:
 - Not wearing clothing or jewellery that could get caught in machines.
 - Not using equipment that you have not been trained to use.



How Can Cuts Be Prevented?

- To prevent cuts from broken glass:
 - Use a broom and dustpan to clean it up.
- Wear gloves if you must use your hands.
- Don't use hands and feet to smash down garbage and waste



How Can Cuts Be Prevented?

- To prevent knife cuts:

- Cut properly, using the bridge and claw grips



- Carry knives with point down and backwards
- Wear gloves that protect your hands from cuts.



How Can Cuts Be Prevented?

- To prevent machine cuts:

- Be sure moving parts are covered by guards.
- Turn off power and unplug to clean.

- Keep your hands, face and hair away from moving parts.

Teens under the age of 16 are prohibited from operating food slicers.



How Can Burns Be Prevented?

- To prevent burns from grills and fryers:
 - Don't brush up against grills or fryers.
 - Stay clear of grills and fryers unless you are working there.
 - Wear a protective apron.
 - Use automatic food lowering devices.



How Can Burns Be Prevented?

- To prevent burns from grills and fryers:

- Cover hot oil and grease when not in use.
- Let ice crystals melt away before frying frozen foods
- Follow company rules for handling hot oil wastes.



How Can Burns Be Prevented?

- To prevent other oil and grease burns:

- Watch out for spatters and spills.
- Use protective apron and mitt.
- Clean up spills as soon as they happen.



How Can Burns Be Prevented?

- To prevent burns from open flames:

- Keep hair and clothes away from flames.
- Keep flammable materials away from flames.



How Can Burns Be Prevented?

- To prevent steam burns:

- Watch out for steam cloud when you open dishwasher, steam table or other places where steam occurs.

- Wear protective gloves whenever you open something filled with steam.



How Can Burns Be Prevented?

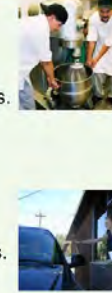
- To prevent burns from hot food and drinks:

- Understand how to operate equipment that produces hot food and drinks.
- Make sure take-out lids are securely attached.
- When carrying food, watch out for other people.



How Can Strains Be Prevented?

- Ask for help with heavy loads.
- Ask for training in safe lifting methods.
- Push loads rather than pull them.
- Don't lift and then twist.
- Don't lean out drive-through windows.



How Can Strains Be Prevented?

- Before moving heavy goods. Think
- How heavy is the load?
 - Do you need help to lift it safely?
 - Do you need training or equipment to move it safely?



How Can Strains Be Prevented?

Safe lifting techniques

- Position the feet
- Bend the knees
- Get a firm grip
- Keep a straight back
- Raise the load with your leg muscles
- Keep the load close to your body



How Can Slips, Trips & Falls be Prevented?

- To prevent trips, slips and falls:

- Make sure your path is clear, clean and dry before carrying a load.
- Move boxes and carts out of the way.
- Watch for mop and broom handles.
- Use non-slip floor pads.



How Can Slips, Trips & Falls be Prevented?

- To Prevent trips, slips and falls:
 - Wear shoes with soles that grip.
 - Clean up spills as soon as they happen.
 - When you carry something, put a lid on it. Use a cart or hand truck if it's heavy.
 - Be aware of your working area.



How Can Slips, Trips & Falls be Prevented?

- Ladders:

- Use ladders correctly.
- Don't lean out away from the ladder. Move it closer.
- Have a helper secure the area.
- Put the ladder back where it belongs when finished.
- Don't leave a ladder unattended.



Illness or injury - Actions to take

- | Be aware | Stay calm, act quickly | Report and record it |
|---|---|--|
| <ul style="list-style-type: none"> Know who the registered first aider is Know your organisation's procedures for illness or injury Know the location of the first aid box, fire equipment and any medical equipment | <ul style="list-style-type: none"> Don't move the injured person If machinery involved, turn it off Tell the first aider If necessary, ring 999 | <ul style="list-style-type: none"> Report the incident to your supervisor Report accidents help to prevent further accidents Record it in the accident book. This is a legal requirement under RIDDOR regulations 2013. The record may be required for insurance claims |

Customer safety

- Warn customers that plates are hot when food is served
- Keep areas where customers will walk free of trip hazards
- Clear up spills that could become a slip hazard
- Good lighting in car parks, walkways
- Clear up spills and hazards in lavatories
- Check and maintain equipment the customer might use on hand drivers in room kettles

Customer safety

- Warning signs when cleaning is taking place
- Do not allow customers in areas where maintenance work is happening
- Signs "mind your head" "watch the step" "hot water"



Causes of fires

- Equipment** that is not serviced regularly can cause over heating and cause fires.
- Human Error.** many fires that happen in cateri Such as fat fryers.
- Electrical.** smouldering wires can develop unseen overnight and be the cause of major incidents..
- Arson.** rare occurrence. grudge between employee and employer, or insurance fraud.
- Chemical.** Not very common now due to the COSHH regulations

Action on Discovering a Fire.

- Raise the alarm. *Break the glass of the nearest alarm point.*
- Call the fire services.
- If safe to do so tackle the fire, if in doubt get out.
- Leave the building via the nearest exit calmly. DO NOT run or use lifts.
- Evacuate the premises and report to your designated assembly point.

What action would you take?

- | | |
|------------------------------------|--|
| A person's clothes catch fire | <ul style="list-style-type: none"> Wrap them in a fire blanket or wet tablecloth Lay them on the floor Do not take off the blanket or tablecloth Call 999 |
| A pan of fat catches fire | <ul style="list-style-type: none"> Turn off the gas or electricity and cover the pan with a lid or fire blanket Use an oven cloth if possible to protect your hands Do not try to move the pan Do not put water on this type of fire |
| An electrical appliance is on fire | <ul style="list-style-type: none"> Turn off the electricity at the plug Use a carbon dioxide extinguisher Do not use any other type of extinguisher on this type of fire |

Fire Blanket



- Fire blankets are used to cover small fires to exclude the oxygen, they come in a self contained sleeve.

- Used on oil and fat fires or to wrap around a casualty.

- Not for electrical fires

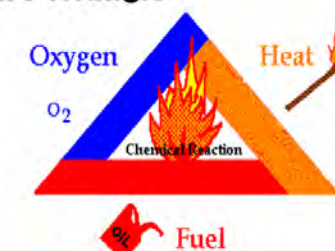
General Instructions for use:

- Read instruction plate before use.
- Ensure that you are positioned between the fire and a safe exit/escape route.
- Pull tapes to remove blanket from container.
- Hold blanket by the tapes and cover burning material completely (using the blanket to shield your face & hands).
- Leave to cool for a least 30 minutes, keeping out of the smoke.
- Turn off the electrical or gas supply and leave the area closing all doors behind you.

Preventing a fire from Starting.

- Store flammable materials safely.
- Ensure staff are trained and updated on fire training.
- Make sure "No Smoking" signs are evident and strictly implemented.
- Regular fire checks for fire hazards such as:
 - Rubbish storage areas.
 - Kitchen ventilation.
 - Gas & Electrical equipment.
 - Flammable chemicals.

Fire Triangle



AC 4.1 Food related causes of ill health

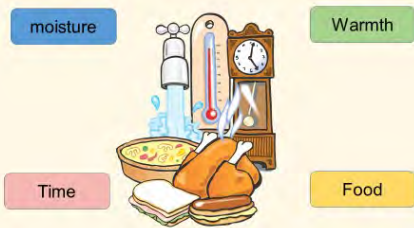
Bacteria

Some bacteria have to be **INSIDE** your body to make you ill. These are consumed in the food

Once inside you, the bacteria attack your body causing illness, some such as Salmonella cling to the gut wall preventing absorption of water and nutrients- this type take hours even days to colonise the gut so symptoms may not show for a few days

Some produce a **TOXIN** (poison) on the food which makes you ill when you eat it. Toxins act on the body rapidly so this type make you ill within minutes to hours of eating them

What do bacteria need to multiply?



Sources of food poisoning bacteria

- People/sewage
- Raw food
- Insects
- Rodents
- Soil/dust
- Refuse/waste
- Animals/birds
- Contaminated packaging.

Influence of temperature



Food poisoning

Mouth increase in saliva

Head headache

Skin fever, shivering

Gut abdominal pain, nausea vomiting, diarrhoea

Circulation, low blood pressure, weak pulse, fatigue



Non food poisoning illness

Some microorganisms cause food borne illness which is not classified as food poisoning because of other symptoms they cause

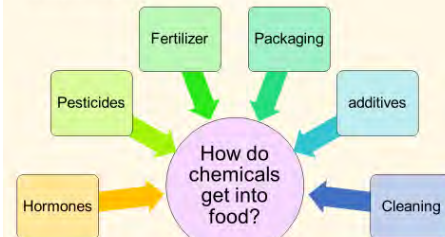
Norovirus

From leafy greens such as lettuce, fresh fruits and foods that are not washed before eating
Causes Diarrhoea, vomiting, fever, body aches, headaches

Toxoplasmosis

From infected meat (also cat poo but you wouldn't eat that)
Causes fever, muscle pain, sore throat, tiredness
Long term the Toxoplasma parasite can invade the eyes causing blindness. Damages unborn baby.

Chemicals



Hormones



Animals can be injected with growth hormones and antibiotics to give larger muscle development and higher milk production

Effect on health

Oestrogens could have effects on reproductive system (male and female) possibly cancers.
BANNED- except for the USA
Antibiotics could be absorbed by the body and increase the antibiotic resistance in humans

Pesticides



Crops are sprayed with herbicides and pesticides to prevent being eaten by insects.
Herbicides kill weeds and unwanted plants in crop

Effects on health

All crops in EU tested for pesticide residues. Higher levels of exposure could cause nerve damage, damage to foetus, dermatitis, possibly cancers, dizziness, headaches, nausea and vomiting in

Packaging



During storage, chemicals can migrate from the packaging into the food if they are stored badly

Effects on health

Under some conditions chemicals such as BPA and Phthalates can leech into foods from packaging. They can affect the endocrine system which produces hormones in the body such as reproductive hormones and insulin

Fertilizer



Plants are fertilized to keep the soil fertile and to give a higher yield of crops for the farmer. NOT IN ORGANIC FERTILIZERS

Effects on health

Nitrates, phosphates and potassium are all toxic to humans in higher amounts, pollution of water table, effects on other organisms eg fish that could then be eaten by humans

LO4 Know how food can cause ill health

Additives



Additives in food can be chemical or natural. Give food characteristics like long shelf life or colour or flavour. Used to stop crystallization of sugars, to soften foods etc

Effects on health

Not all food additives are harmful chemicals but some are. Long term effects such as cancers and nerve damage Short term effects like allergies and hyperactivity in children

Cleaning



Foods and equipment are cleaned with chemicals which may stay on the food afterwards. some industrial cleaning chemicals are harsh on machines

Effects on health

Poisoning like symptoms, vomiting, diarrhoea headaches. Could build up with long term exposure such as jobs like cleaners

Naturally occurring



Metals such as iron, zinc, sodium are naturally present in foods and we need them as minerals for good health. Others such as Arsenic, cadmium, lead and mercury are naturally in the environment and get into food

Effects on health

Small amounts of mineral metals are needed for GOOD health. Toxic metals such as Arsenic and cadmium could build up in the body Lead and Mercury cause brain damage

Residues

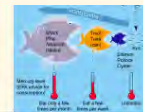


Human activities such as farming, industry or car exhausts could cause metals to remain in the environment and get into food

Effects on health

Long term effects from build up of residues such as brain damage, nerve damage and problems with digestion and body functions

Food chain

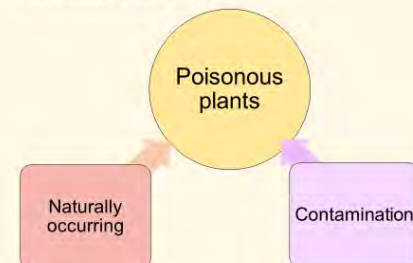


Metals in low concentrations at the bottom of the food chain are concentrated as they go up the chain and can be toxic to the end consumer

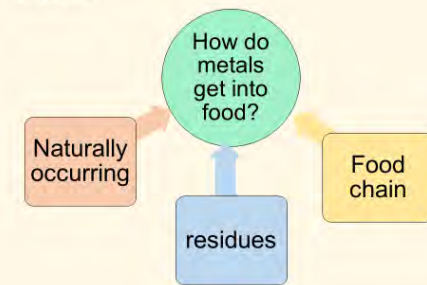
Effects on health

Concentrated lead and mercury can cause brain damage and damage to unborn babies. Can cause nerve damage and muscle problems

Poisonous plants



Metals



Contaminants



Poisonous plants such as some weeds could get into food when being harvested or when eaten by animals

Effects on health

Can cause vomiting, diarrhoea and possibly toxic to humans causing death (but not likely)

Naturally occurring

Some plants we eat are naturally poisonous and have to be treated or have the poisonous part removed before we eat them.

Rhubarb leaves

Solanine on potatoes

Kidney beans



Effects on health

Can cause vomiting, diarrhoea and possibly toxic to humans causing death (but not likely)

AC 4.1

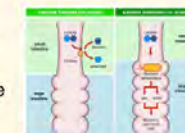
Food related causes of ill health – allergies and intolerances

The difference between intolerances and allergies

- Food intolerances are more common than food allergies. The symptoms of food intolerance tend to come on more slowly, often many hours after eating the problem food. Typical symptoms include bloating and stomach cramps.
- A food allergy is a rapid and potentially serious response to a food by your immune system. It can trigger classic allergy symptoms such as a rash, wheezing and itching.

Reasons for food intolerance

- some people react to certain foods and eating them may cause uncomfortable symptoms or, in rare cases, a severe illness.
- Food intolerance is more common in children than in adults. Children often grow out of the intolerance before they go to school.



Lactose intolerance



- Avoid milk and milk products
- Experience nausea, bloating, pain in the abdomen and diarrhoea
- Eat lactose-reduced products
- Eat goats cheese, soya milk, feta cheese, rice milk
- In the UK, Ireland, 5% of the population is affected,



Lactose intolerance



- When planning dishes, read ingredients carefully,
- even foods like margarine can contain milk derivatives which could make the customer ill
- Soya and vegetable products replace milk in a number of foods, milk, cream, cheese, yoghurt can all be made from soya

Coeliac/gluten intolerance

- Intolerant to the protein gluten
- Causes diarrhoea, anaemia, weight loss
- Gluten is found in many cereals plants primarily wheat, rye, barley and some oats
- Avoid pasta, bread, cereals flour based foods
- Gluten free products are available

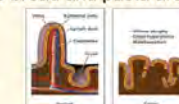


Coeliac disease

- People with coeliac disease must avoid foods that contain gluten, for example, bread cakes, and biscuits. Many foods have small amounts of wheat, barley or rye added, so people with coeliac disease must check food labels carefully.

- Rice, maize and potatoes do not contain gluten so are good sources of starchy carbohydrate, and gluten-free versions of foods such as bread and pasta are available.

Coeliac disease may affect as many as 1 in 100 people in the UK;



Yeast intolerance

- Yeast is present in a variety of foods, commonly bread, baked products and alcoholic beverages.
- Yeast intolerance has a wide range of symptoms including flatulence, bad breath, fatigue, irritability, cravings for sugary foods, stomach cramps, bad skin and indigestion.
- Fermented foods contain yeasts eg vinegar, wine, salad dressing
- Very ripe fruits contain natural yeasts



Symptoms of food allergies

A food allergy usually occurs between a few minutes and a few hours after eating a particular food.

The symptoms of food allergies vary

- coughing;
- dry, itchy throat and tongue;
- nausea and feeling bloated;
- wheezing and shortness of breath
- swelling of the lips and throat;
- runny or blocked nose;
- sore, red and itchy eyes.



Anaphylaxis

- Anaphylaxis is most commonly caused by food allergies, but can also be caused by other things, such as insect bites and drug allergies.
- Peanuts, milk, eggs and fish are the most common foods to cause anaphylaxis in the UK.

- Feeling lightheaded or faint.
- fast, shallow breathing, wheezing
- a fast heartbeat
- clammy skin
- Confusion and anxiety
- collapsing or losing consciousness



Peanut allergy

- severe allergic reaction called anaphylaxis can cause death.
- An example of this is a serious allergy to peanuts or other nuts.



- Peanut allergy has become more common, especially in children. Until recently, the UK government recommends that, where there is a family history of allergy, pregnant mothers should not eat peanuts, and that peanuts are not given to infants.

Preventing allergic reactions

People who have an allergic reaction to foods or ingredients must be particularly careful about what they eat and reading labels and menus carefully is especially important.



New rules that came into effect from December 2014 include the way allergen information appears on labels and on food that is pre-packed, sold loose or served in a restaurant, café or take-away.

Allergens in Hospitality and Catering

- All menu items must be marked with any of the 14 major allergens they contain
- Wait staff should have a good knowledge of which allergens are present
- Complete allergen check sheet for new menu items
- When using pre prepared ingredients, kitchen staff should check the labels carefully to identify any allergens eg
- Peanut flour used to thicken the sauce in a takeaway curry;
- Milk present in a minor ingredient in a pre-packed or catered food.

Major allergens



Food allergies

- A food allergy is one particular type of food intolerance that involves the body's immune system. only true allergies involve the immune system.

- In the UK, the most common food allergies are to eggs, milk, fish, peanuts and tree nuts (such as walnuts, Brazil nuts and almonds). * In the UK, kiwi fruit allergy among children is becoming more common.*

- There are up to 10 recognised deaths from food allergies in the UK every year. *



The allergenic ingredients in special fried rice are:

- Crustacea – prawns
- Soya – in the light soy sauce and in the Chinese roast pork
- Wheat – in the light soy sauce and in the Chinese roast pork
- Eggs
- Molluscs – in the oyster sauce
- Sesame – in the sesame oil



The allergenic ingredients in sweet and sour prawn balls are:

- Crustacea – prawns
- Wheat – in the flour and soy sauce
- Soya – in the soy sauce
- Cooking oil can contain a blend of several ingredients, including nuts, peanuts and soya



The allergenic ingredients in paella are:

- Milk – in the chorizo
- Wheat (gluten) – from the rusk in the chorizo sausage
- Molluscs – squid, clams
- Crustacea – prawns
- Sulphites – in the wine, chorizo sausage and the pancetta
- Some stock cubes contain mustard and celery



The allergenic ingredients in four seasons pizza are:

- Milk – in the mozzarella cheese
- Sulphites – in the Parma ham
- Wheat – in the flour
- Fish – anchovy

LO4 Know how food can cause ill health

The allergenic ingredients in crumbed ham are:

- Sulphites – in the ham
- Wheat – in the breadcrumbs
- Eggs – in the wash which binds the breadcrumbs to the ham



The allergenic ingredients in Scotch eggs are:

- Eggs
- Wheat (gluten) – in the flour and from the rusk in the sausage meat
- Sulphites – in the sausage meat
- Cooking oil can be a blend of several different ingredients, including nuts, peanuts and soya



AC 4.2

Environmental Health Officer – roles and responsibilities

What are the roles and responsibilities of an EHO?

- Be able to state several of the roles of an EHO in basic form

- Explain the main features of each role

- Be able to relate the role of an EHO to the wider industry

What is an Environmental Health Officer?

EHOs are personnel qualified in Environmental Health laws, enforcement and inspection methods. They have a 3 year degree in Environmental Health

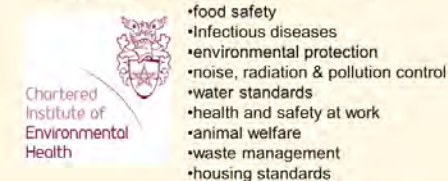
Many organisations employ EHOs including

- Local councils
- Private companies
- NHS
- Military
- Food Standards agency



What do EHOs do?

- EHOs deal with a variety of different legislation and enforcement not just related to food.
- EHOs tend to specialise in an particular area of work once qualified- ask Mrs Walker about her MSC



Legislation enforced by EHOs

The Food Safety Act.

Food safety from the manufacturer or producer to the point of sale. Might involve different companies or premises e.g. suppliers, manufacturers or kitchens, shops or restaurants.

The Food Safety Act (General Food Hygiene) Regulations.

Ensures food producers **HANDLE** all food hygienically.

Legislation enforced by EHOs

The Food Safety Act (Temperature Control) Regulations.

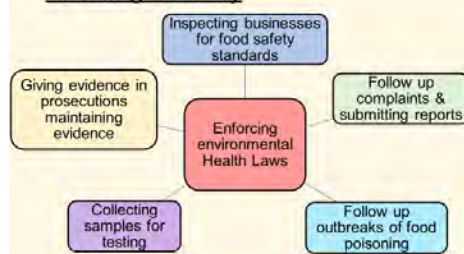
Temperatures at which to store or hold food.

- Freezers from –18°C to –24°C
- Chillers from 3°C to 8°C
- Fridges from 1°C to 5°C
- Cooked core temperature at 75°C or above
- Hot holding above 63°C

The Food Composition Regulations.

Specifies what ingredients **CAN** or **CANNOT** be used in the manufacture of foods e.g. bread, breakfast cereals and use of additives

EHO roles in the Hospitality and Catering industry



Inspecting businesses for food safety standards

- Powers of entry at any reasonable time
- Inspect food and premises
- Power to seize and detain food
- Serve notices
- Power to close
- Prosecute



The 3 main areas EHOs inspect are



Food premises must

- Be well maintained
- Be regularly checked
- Have lockers for employees
- Have hand wash facilities
- Have clean cloakroom and toilet facilities
- Have first aid available
- Have clean storage areas
- Have temperature controlled fridges and freezers
- Have equipment that is clean and in good working order
- Be free from pets and pests etc

Part of the EHO role is to look at hygiene in the kitchen – what problems can you see and why might they cause illness?



Food handlers must

- Have regular training in food safety
- Be dressed in clean 'whites' or other uniform
- Have hair tied back (and ideally wear a hat)
- Have short, clean nails – no nail varnish or jewellery
- Be in good health (no upset stomachs)
- Have 'good' habits, e.g. no coughing or sneezing over food
- Wash their hands after handling raw meat, after blowing nose, after going to the toilet etc
- Cuts should be covered with a blue plaster

Food hygiene practices

- Food deliveries should be checked thoroughly
- Food should be labelled and stored correctly (in freezers, chillers, fridges and dry stores)
- Food should be rotated (first in first out)
- Care should be taken with temperature control in the kitchen (i.e. food kept out of the danger zone of 5-63oc)
- Food should be prepared quickly and as close to cooking time as possible
- Hot food should be maintained at above 63oc
- The core temperature of cooked food needs to be at least 75oc
- Chilled food should be stored below 5oc
- Washing up should be done in hot soapy water if there is no dishwasher available
- Waste should be disposed of safely.

What problems can you see here and why might they cause illness?



What powers does the EHO have if they see unsafe practice like above?

For the bottom photographs – why are these good examples?



Documentation

The EHO has to make staff know and carry out food preparation safely and hygienically. How might they do this?

All food businesses must have a food safety management system
Includes safe working methods, critical control points and monitoring

The Food Standards Agency publishes a file which contains check lists and guides for food businesses. If the business completes all parts of it they comply with the law



Record Keeping

Legal requirement that certain records are kept as part of the HACCP-based food safety management system, eg:

- Fridge/freezer records
- Cooking/hot-holding temperatures
- Cleaning records
- Training records
- Pest control checks



Training

Dependant on the type of business and risk involved.

- All food handlers must receive food hygiene training by law and the business must keep records of the training.
- EHOs check the records of training to make sure they are complete
- EHOs can also provide food Hygiene training to businesses either as part of their job or for a small fee

Levels 1 – 4 are available. Recommended it is updated every 3 years

Consequences of poor inspection results

- Can close dirty premises at no notice
- Notice to improve and re inspection
- Can impose fines of £20,000 or six months imprisonment
- Can take legal action for manslaughter

All premises must be registered with the local authority and can be inspected at any time by an EHO.

A Hygiene Improvement Notice is used to require food businesses to improve something sub-standard

Food Hygiene Rating Scheme

- EHOs issue a rating between 0 and 5 when conducting inspections
- Issued to restaurants, pubs, cafes, mobile catering etc
- Displaying them isn't a requirement yet



Although its not compulsory to display the ratings in England YET do you think it is a good idea for businesses to display them?

Follow up complaints & submitting reports

The EHO investigates complaints from the public about problems when with food/drink. These can be

Physical
Chemical
Biological



The EHO reports back to the customer and the provider – can prosecute supplier if negligent

Follow up outbreaks of food poisoning

- The EHO coordinates with doctors, hospitals, victims and food suppliers to trace and identify sources of food poisoning outbreaks (and single cases)
- They take samples of food, faecal samples, swabs of kitchens and production areas and these are analysed by the Public Health laboratory service to identify the species and likely causes
- EHOs publish a report on the outbreak that gives the timeline and how the outbreak could have happened – publicly available



Collecting samples for testing

EHOs collect samples for testing using *aseptic* methods so no bacteria contaminate the sample

- Foods
- Faecal
- Swabs of surfaces or workers
- Foods (for composition testing)
- ATP swab testing



In cases where there could be a prosecution the sample is divided so that there is a reference to use if it goes to court



Giving evidence in prosecutions maintaining evidence



- Prosecutions under food safety laws are serious, people can get injured or even die .
- The EHO writes a report for the prosecution service who decide if it is serious enough to take to trial
- The EHO who conducted the investigation gives evidence as an expert witness and explains where the defending party has broken the law
- Evidence is submitted in the form of photos, lab results, and the EHO notes from the investigation



Doctors notify environmental health of suspected cases of **infectious disease**.

- EHO then visits the person to complete a questionnaire sent to PHE who analyse the data
- EHO would investigate any source of infection locally

Campylobacter – Most common cause of food poisoning in the UK

Cryptosporidium – Is a microscopic parasite that causes Cryptosporidiosis

E. coli 0157 - Is found in the gut of animals; it is a bacterial infection that causes severe stomach pain that can lead to kidney failure

LO4 Know how food can cause ill health



Food Safety Act 1990

If a person renders (which means “makes”) a food injurious to health: by adding an article or substance to it; using an article or substance as an ingredient in its preparation; abstracting (which means “taking away”) any constituent from it; or subjecting it to any other process or treatment then they are guilty of an offence.

Main provisions of the Food Safety Act

- It is an offence to supply food that fails to comply with food safety requirements
- Strengthened powers of enforcement including detention and seizure of food
- It requires training in basic food hygiene for all food handlers
- All food premises must be registered
- Authorises EHOs to issue improvement notices if there is a potential risk
- EHOs can issue emergency prohibition notices to force caterers to stop their business immediately

The Food Safety Act 1990

Food businesses:

- Must ensure that the food served or sold is of the nature, substance or quality which consumers would expect, e.g. :
 - Nature - pollock rather than cod;
 - Substance - contains foreign material including glass or packaging;
 - Quality – mouldy bread or stale cake.

- Ensure that the food is labelled, advertised and presented in a way that is not false or misleading, e.g. photos on menus that do not look like the dishes served to customers.

Role and powers of E.H.O

Environmental Health Officers

- Provide Food Safety advice
- Inspect food premises
- Enforce legislation covering food
- Investigate outbreaks of food-borne disease and possible offences

- Powers of entry at any reasonable time
- Inspect food and premises
- Power to seize and detain food
- Serve notices, power to close businesses
- Power to prosecute



Penalties under the Food Safety Act

	Magistrates court	Crown court
Selling food that does not comply with the Food Safety Act	6 months in prison or max £20,000 fine	2 years in prison Unlimited £ fine
Obstructing an Environmental health Officer	3 months in prison or max £2,000 fine	
Other serious offences	6 months in prison or max £20,000 fine	2 years in prison or £ unlimited fine

Accident Investigation

Accidents must be reported to the Health and Safety Executive via reporting system (RIDDOR).

- Deaths caused by workplace accidents
- Occupational diseases
- fractures, amputations, loss of sight etc
- Over 7 day incapacitation of a worker
- Dangerous occurrences
- Accidents to members of the public where they are taken to hospital.

The EHO receives ALL RIDDOR information in their area. How can the EHO use the information to improve food premises?

ATP Swabs

What is ATP and how is it measured?
All organic matter contains ATP including food, bacteria, mould and microorganisms. The detection of ATP indicates the presence of biological matter.

A sterile swab is used to take approximately a 10cm² sample. ATP uses bioluminescence to take a reflective light unit reading (RLU) from the swab.

Measuring the amount of bioluminescence from an ATP reaction provides a good indication of surface cleanliness

Unclean surface → large amount ATP
→ more light produced → high reading

	Sample location (abbreviation)	Lower limit (Pass)	Upper limit (Fail)
0	Random test site	50	100
1	Food Contact surface (Food Contact)	20	50
2	Chopping board	20	50
3	Food Preparation surface (Food Prep Surface)	20	50
4	Utensils	20	50
5	Slicing Equipment	20	50
6	Packaging equipment e.g. without packing machines (Packing Equipment)	20	50
7	Hands	100	200
8	Taps	50	100
9	Fridge handle	50	100
10	Microwave door handle / key pad	50	100
11	Door push plate	50	100
12	Cleaning cloths / Sponges (Cleaning cloths)	100	200



Mr Smith's café was closed by food officers with an emergency hygiene order following severe rodent infestation. The officers found rodent droppings on food preparation surfaces, on food items and in containers.
Mr Smith failed to have systems to control pests and has failed to protect food from foreign bodies, pests and bacteria likely to make the food unfit for human consumption

List four hygiene problems with Joe's café (4)

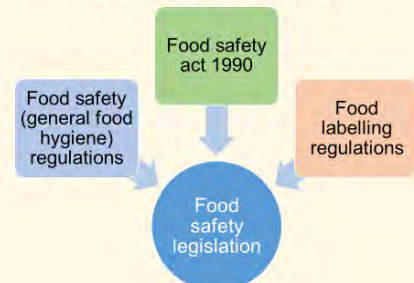
Joe's café is due a visit from the EHO. Give four reasons why Joe's café will not pass the inspection (4)

What might the EHO suggest happens to the café? Give two ideas (2)

AC 4.3

Food safety legislation

What food safety legislation do we need to know?



Defence of Due Diligence

- The principal of defence under The Food Safety Act 1990
- A business must be able to demonstrate that it has done everything within its power to safeguard consumer health
- Accurate records are useful in proving this defence; these may include:
 - Temperature control records delivery/storage/cooking
 - Microbiological records
 - Hygiene training for staff
 - Use of HACCP system
 - Pest control records
 - Hygiene manuals, cleaning schedules
 - Hygiene policy



The European Union (EU) adopted the General Food Law Regulation (EC) 178/2002 in 2005.

food safety and hygiene (england) regulations 2013

Safety

Food shall not be placed on the market if it is unsafe, injurious to health

• unfit for human consumption

Presentation

labelling, advertising and presentation, including the setting in which the food is displayed, of food shall not mislead consumers.

Traceability

food business to keep records of food, supplied to their business.

Withdrawal, recall and notification

withdraw food which is not in compliance with food safety requirements, and to recall the food if it has reached the consumer.

Food Safety (General Food Hygiene) Regulations (1995)

- Food premises
- Personal hygiene of staff
- Hygienic practices

- make sure food is supplied or sold in a hygienic way;
- identify food safety hazards;
- know which steps in your activities are critical for food safety;
- ensure safety controls are in place, maintained and reviewed.

Food premises should

- be clean and in good condition, made from easy to clean materials
- have potable (drinking) water;
- have pest control measures
- have adequate lighting and ventilation ;
- clean lavatories which do not lead directly into food rooms;
- have adequate hand washing facilities and drainage
- facilities for washing food and equipment;

Food Handler – Legal Requirements

- Keep yourself clean
- Keep your workplace clean
- Protect food from contamination or anything that could cause harm
- Follow good personal hygiene practices
- Wear appropriate protective clothing
- Sell food with an expired date mark
- Work with food if they have symptoms of food poisoning or had diarrhoea and sickness in the last 48 hours.

Food Safety Training

- Food handlers must receive adequate supervision, instruction and/or training in food hygiene. Each food business must decide what training is needed
- Legal requirement
- Appropriate to tasks undertaken
- Recorded
- Refreshed at given intervals eg yearly

HACCP- legal requirement

Hazard
Analysis
Critical
Control
Point

Hazard – anything that could cause harm to consumers

HACCP is designed to help food companies to minimise the risk from food hazards

Hazard
Analysis
Critical
Control
Points

- Legal requirement
- Identify the most critical (dangerous in terms of bacteria) areas of their business to make sure they are under control

HACCP System

Food companies need to:

- Analyse the hazards to food safety
- Assess the level of risk from each hazard
- Decide the most critical points that require controls
- Implement appropriate controls
- Establish a monitoring system
- Set up procedures to correct problems (corrective action)
- Review the system when operations change

Hazard
Analysis

A hazard is something that has the potential to cause harm....

Type of hazard	Example
Biological	Salmonella in chicken
Chemical	Contamination from cleaning materials e.g. bleach
Physical	Damaged packaging, glass found in food

Critical
Control
Points

A critical control point is a step which eliminates or reduces the hazard

Control is essential to reduce the risk of food poisoning.

If a caterer gets it wrong they could be breaking the law all stages from purchasing through to preparation and serving is controlled.

Record Keeping

Legal requirement that certain records are kept as part of the HACCP-based food safety management system, eg:

- Fridge/freezer records
- Cooking/hot-holding temperatures
- Cleaning records
- Training records
- Pest control checks

Penalties for Non-Compliance

- Prohibition from using part of business
- Fines and legal costs
- Prison sentence
- Closure of business
- Prohibition from running a food business
- Criminal record
- Defence of Due diligence also for this regulation



The Food Hygiene regulations 2006

- Applies to high-risk foods
- Cold foods- store below 8°C
- Hot foods – store above 63°C

During service :-

- Cold food max 4hrs at room temperature then discard or refrigerate
- Hot food maximum 2 hrs
- Buffet food 90mins at room temperature

Food labelling regulations 2006

Pre-packaged foods have information on their labels which can help consumers choose between different foods, brands, or flavours.



- Much of the information must be provided by law.

- Additional information may also be provided, such as cooking instructions or serving suggestions.

- In the UK, foods sold loose are currently exempt from many of the food labelling laws

Information that must appear by law on food labels:

- the name of the food;
- weight or volume;
- ingredient list;
- allergen information;
- genetically modified (GM) ingredients;
- date mark and storage conditions;
- preparation instructions;
- name and address of manufacturer, packer or seller;
- place of origin;
- lot (or batch) mark;
- nutrition information

Nutrition				
Typical values	100g	Each rice typically contains	% daily values	% daily values
Energy	235kcal	100g	4%	200kcal
Fat	1.5g	0.2g	3%	30g
of which saturates	0.3g	0.1g	1%	20g
Carbohydrate	45.5g	20.0g	9%	35g
of which sugars	1.2g	0.6g	2%	30g
Fibre	1.2g	0.6g	2%	30g
Protein	7.7g	3.8g	15%	6g
Salt	1.0g	0.4g	20%	6g

Weight or volume

The weight or volume of the food must be shown on the label. By comparing the weight with the price, consumers can make sure that they are getting value for money.

Some foods such as bread, tea and butter are only sold in standard amounts.



The e mark means it is packed to the average weight system

The name of the food

It is important that the name of the food must be clearly stated and not be ambiguous or misleading with a description if needed.



Ingredients

- Ingredients are listed in order of weight, according to the amounts that were used to make the food, starting with the largest ingredient and ending with the smallest.

- Food additives and water must also be included in the list if they have been added.

- Sometimes a particular ingredient is highlighted in the name, e.g. 'Prawn Curry: now with extra prawns'. If so, the minimum amount of the named ingredient must be included in the ingredients list, or next to the name of the food.

- Allergens must be listed in **bold** to highlight them

Allergy information

- celery;
- cereals containing gluten (such as wheat, barley, rye);
- crustaceans (lobster and crab);
- eggs;
- fish;
- lupins;
- cow's milk;
- molluscs (mussels and oysters);
- mustard;
- nuts (almonds, hazelnuts, walnuts, Brazil nuts, cashews, pecans);
- peanuts;
- sesame seeds;
- soybeans;
- sulphur dioxide and sulphites (preservatives in some foods and drinks)

Major allergens



Must be highlighted in ingredients list

Genetically modified (GM) ingredients

The presence of genetically modified organisms (GMOs) or ingredients produced from GMOs must be indicated on the label.



Name & address, packer or seller

Consumers can then contact the manufacturer if they have a complaint about a product or if they wish to know more about it



Storage conditions and 'Use by' mark

The label must say how long foods should be kept and how to store them.

Following storage instructions can reduce the risk of food poisoning and help to make sure that it tastes and looks its best when it is eaten.

Foods which spoil quickly (i.e. are highly perishable) such as cooked meat and fish have a 'Use by' date. If kept for too long these foods can cause food poisoning even though they may not taste odd.



'Best before' date

- Other foods have a 'best before' date, after which foods may not be at their best, with regard to flavour, colour and texture, even though they will probably be safe if they have been stored according to the instructions on the label.

- Salt only needs to have a year as a best before but most manufacturers label it to the month



Preparation instructions

- Instructions on how to prepare and cook the food must be given on the label, if they are needed. If the food has to be heated, the temperature of the oven and the cooking time will usually be stated.

- Instructions may also be given for heating in a microwave oven. These instructions should make sure that the food tastes its best and that it will be thoroughly heated to a core temperature of 72°C to help minimise the risk of food poisoning.



Place of origin

- The label must show clearly where the food has come from if it would be misleading not to show it, for example, a tub of 'Greek Yogurt' which was made in France.



Protected Designation of Origin (PDO) is used for food produced, processed and prepared in a given geographical area using recognised know-how, e.g. West Country farmhouse Cheddar cheese and Jersey Royal potatoes.



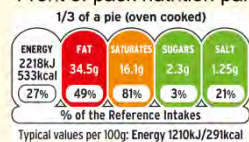
Lot (or batch) mark

- A lot mark is a code which is required by law to appear on the label. It helps to identify batches of food in the event that they need to be recalled by the manufacturer, packer or producer.
- A date mark is sometimes used as a lot mark. Lot marks may be indicated by the letter 'L'.
- Pre-packed red meat and meat products, must carry traceability information for identification of the product through the supply chain back to the farm.



Nutritional labelling

Front of pack nutrition panel



Typical values per 100g: Energy 1210kJ/291kcal



This is a USA nutrition label

Back of pack nutrition panel

Typical values	100g	Each rice typically contains	% daily values	% daily values
Energy	235kcal	100g	4%	200kcal
Fat	1.5g	0.2g	3%	30g
of which saturates	0.3g	0.1g	1%	20g
Carbohydrate	45.5g	20.0g	9%	35g
of which sugars	1.2g	0.6g	2%	30g
Fibre	1.2g	0.6g	2%	30g
Protein	7.7g	3.8g	15%	6g
Salt	1.0g	0.4g	20%	6g

This pack contains 16 servings

*Reference intake of an average adult (8400kJ / 2000kcal)

Nutrition claims

A nutrition claim describes what a food contains (or does not contain) or contains in reduced or increased amounts. Examples include:

- Low fat (less than 3g of fat per 100g food);
- High fibre (at least more than 6g of fibre per 100g food);
- Reduced sugar (30% less than the original product);
- Source of vitamin C (at least 15% of the recommended daily allowance for vitamin C).



Health claims

A health claim may be featured on the packaging if a food or one of its ingredients has been agreed by experts to provide additional health benefits.

Examples of health claims include:

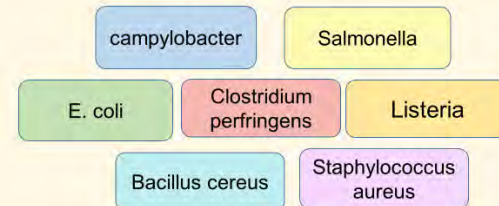
- Calcium is important for normal growth and development of bones in children.
- Beta-glucans from oats help to reduce blood cholesterol.
- Xylitol in some sugar-free chewing gum helps neutralise plaque acids.



What causes food poisoning?

- Be able to state the 7 common types of food poisoning
- Be able to relate the food poisoning species to food types and symptom types
- Be able to identify potential sources of pathogens from description of symptoms and foods consumed

Common types of food poisoning



Correct names of bacteria

Known as	Full scientific name
Campylobacter	Campylobacter jejuni
Salmonella	Salmonella typhimurium <i>et al</i>
E . coli	Escherichia coli
Cl . perfringens	Clostridium perfringens
Listeria	Listeria monocytogenes
B . Cereus	Bacillus cereus
S . aureus	Staphylococcus aureus

ital, the second with lower case

Common food hygiene faults leading to food poisoning

- Preparation too far in advance and storage at room temperature
- Slow cooling
- Inadequate reheating/cooking
- Contaminated food (cross-contamination or raw)
- Inadequate thawing prior to cooking
- Food handlers (infected/bad personal hygiene).

What do bacteria need to multiply?

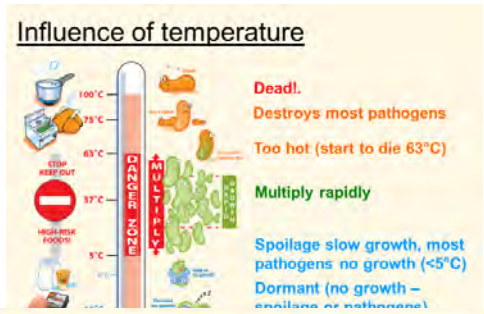


Sources of food poisoning bacteria

- People/sewage
- Raw food
- Insects
- Rodents
- Soil/dust
- Refuse/waste
- Animals/birds
- Contaminated packaging.



AC 4.4 common types of food poisoning



Campylobacter jejuni

Foods it is found in	Poultry , raw meat, unpasteurised milk products, water
Symptoms	Headache, abdominal pain,bloody diarrhoea
Onset	2-5 days after infection
Duration	Up to 10 days
Effects on body	Weakness and dehydration
Special points	Only needs a few bacteria to cause illness

Salmonella group of over 1600 species

Foods it is found in	Raw meat, unwashed vegetables, eggs undercooked chicken
Symptoms	Fever, diarrhoea, vomiting, abdominal pain, blood in poo
Onset	12-72 hours
Duration	4-7 days can be up to 3 weeks
Effects on body	Can take months to clear the body, weakness colonises the gut
Special points	Survives refrigeration Some named after locations

Escherichia coli 0157

Foods it is found in	beef,chicken, lamb, unpasteurised milk cheese, spinach, salads,raw veg
Symptoms	Abdominal cramps, bloody diarrhoea, nausea
Onset	Up to 24 hours
Duration	5-10 days
Effects on body	Kidney damage, pancreas damage, dehydration
Special points	Clings to lower intestine wall

Clostridium perfringens

Foods it is found in	Undercooked meats, large volumes of food ,casseroles, gravies
Symptoms	Stomach cramps, fever, diarrhoea (not ususally vomiting)
Onset	6-24 hours
Duration	Up to 24 hours
Effects on body	Fever, damage to intestines
Special points	Forms toxins in warm food, very few needed to cause illness .Anaerobic

LO4 Know how food can cause ill health

Listeria monocytogenes

Foods it is found in	Raw foods, fridge temperatures, unpasteurised milk, cheese, smoked salmon, pate, raw sprouts
Symptoms	Headache, stiff muscles, confusion, fever, convulsions
Onset	3-70 days (21 typical)
Duration	3 weeks
Effects on body	Damage to central nervous system, miscarriage, meningitis
Special points	Grows at fridge temperatures

Bacillus cereus

Foods it is found in	Rice, leftover food, foods at room temperature, sauces and soups
Symptoms	1)Watery diarrhoea, cramps, 2)vomiting and nausea
Onset	1) 30 min-6 hrs 2) 6-15 hours
Duration	24 hours
Effects on body	Dehydration, fatigue
Special points	Produced toxins, only a few bacteria needed Can be anaerobic

Staphylococcus aureus

Foods it is found in	Foods made by hand and no additional cooking . Salads, ham,tuna chicken, cream pastries, sandwiches, dairy products, meat, eggs
Symptoms	Projectile vomiting, diarrhoea, abdominal cramps, fever
Onset	1-6 hours
Duration	24-48 hours
Effects on body	Dehydration, cramps
Special points	25% of people have it on their body, nose, throat and on infected cuts

People at high risk



AC 4.5
Symptoms of food induced ill health

What are the symptoms of food induced ill health ?

Be able to state the common symptoms of food induced ill health

Be able to relate the symptoms to possible causes of illness

Be able to identify potential sources of pathogens from description of symptoms and foods consumed

Symptoms comparison

Intolerance	Allergy	Poisoning
Hours to days to see effect	Can occur within minutes of exposure to food	From 30 min for toxins 12-48 hours bacterial
Digestive system cant process the food	Immune response to allergen	Bacteria poison or disrupt digestive system
Possible to eat a small amount without effect	Body reacts to tiny amounts of food	Toxins- few bacteria Large amounts colonise gut
Stop eating the food and it goes away	May need adrenaline or anti histamines	Runs its course of illness then ends
Easier to detect the food	Allergens may be small amount in ingredients	No smell, no taste, no sign
Symptoms if you eat a lot or frequently	Symptoms every time even tiny amounts	Symptoms if the food is contaminated
Moderate to serious illness	Can be fatal	Serious illness to fatal

Food intolerance

Mouth ,may be sore, bad breath

Skin rash, redness, itching swelling eczema

Gut abdominal pain, bloating, heartburn, cramping, vomiting, diarrhoea or constipation

Lungs chronic cough, wheezing

Head headache, brain fogginess, migraines

Perception irritable, moody, panic, depression



Food allergy

Mouth swelling of lips, mouth and tongue

Eyes and nose stuffy nose,sneezing, swollen eyes, itchy red eyes

Skin rash, redness, itching swelling

Gut abdominal pain, colic, nausea vomiting, diarrhoea

Throat tightening of throat, difficulty swallowing, coughing, sounds when breathing in

Lungs short of breath,wheezing,coughing,chest pain

Circulation, low blood pressure, weak pulse, turning blue, dizziness fainting, chest pain

Perception sense of doom, panic, anxiety



Food poisoning

Mouth increase in saliva

Head headache

Skin fever, shivering

Gut abdominal pain, nausea vomiting, diarrhoea

Circulation, low blood pressure, weak pulse, fatigue



Steve

Steve often got diarrhoea at lunchtime at work. One morning he got up really late and skipped breakfast and noticed he didn't have diarrhoea that day. When he thought about it, he didn't get diarrhoea if he had toast and peanut butter for breakfast but he did when he had a bowl of cereals and milk in the morning.

1. What is the most likely cause of Steve's diarrhoea?
2. What else could he have for breakfast to ensure it didn't happen again?

Anna

Anna and Steve went to their company summer barbeque where one of the men from accounts took charge of the cooking. He had bought the sausages the day before and kept them and the salads in the supermarket bag beside the barbeque.

When they got back home Anna began to feel ill and then was violently sick. Later Steve had the same sickness. Anna was sure it was something they had eaten.Then Steve told her that there weren't enough sausages and he had a vegetarian hot dog.

1. What could have been the source of the food poisoning?
2. What is the most likely bacterium to have caused the illness?

Alex

Alex met Sue from the office at the barbeque, the next weekend she invited him over for a meal. Sue decided to impress Alex by cooking a Chinese stir fry with authentic ingredients like spring onion, ginger and groundnut oil.

Alex liked the stir fry but his lips started to sting after eating it, then his mouth started to swell and he had trouble swallowing and breathing. Sue called the ambulance and their romantic night ended with Alex in a hospital bed on a drip of anti histamine until he felt better

1. What was the reaction that Alex had called?
2. What could have caused him to have the reaction?

Sue

Alex decided to make it up to Sue by taking her to lunch in the works canteen . Alex had the fish and chips and Sue had the Bolognese which was served from a big pan over the spaghetti. It wasn't as hot as Sue would have liked, it was just warm but she ate it anyway. The next morning Sue texted Alex to say that she had been up most of the night with feeling hot and cold, stomach cramps and diarrhoea. Another "romantic" meal ruined!

1. What could have been in the Bolognese that made Sue ill?
2. Sue had food poisoning so why wasn't she vomiting as well?

The wedding

Alex and Sue got in so well they got married the next summer. Alex made sure the caterers knew about his peanut allergy and Steve's lactose intolerance. The day went without a hitch and the guests all loved the food buffet. When they got back from honeymoon, Sue's mum phoned to say that 20 guests had been really ill 2-3 days after the wedding. Auntie Betty had ended up in hospital with dehydration after vomiting and diarrhoea and blamed the undercooked chicken from the buffet. The caterer said he had stored the chicken in the fridge before serving it so it wasn't to blame.

1. Which bacterium could have caused the illness?
2. How did you decide which bacterium?
3. Who should Sue's mum have contacted to investigate?

The investigation

Auntie Betty's doctor was concerned that she was so ill after the wedding and made the phone call to Stentonshire councils Environmental health department.

Sarah the EHO was concerned about the incidents and decided to pay the catering company a visit to inspect them. The caterer wasn't pleased that she turned up unannounced but he let her in to inspect his kitchens

1. Does Sarah (EHO) need to let the catering company know she is going to visit?
2. Which food safety legislation should the caterer be following?
3. Give 6 powers that EHOs have while inspecting premises

The inspection

The EHO carried out the inspection on the caterer's premises and took the samples away to be analysed.

Following the inspection, she issued the caterer with a food hygiene ratings score of 1 and a hygiene improvement notice and closed the kitchens for 14 days to carry out deep cleaning and train the workers in food hygiene. The samples were tested and the laboratory confirmed that the cause of the food poisoning incident was Salmonella. The caterer made such an improvement to his kitchens that the Environmental health team decided not to prosecute. New salmonella species are often named after the town they are discovered in and the new one was named.....Salmonella stenton

1. Name 4 types of samples Sarah would have taken
2. What would be the consequences for the business of being closed for 14 days and a hygiene ratings score of 1?
3. What are the penalties of being prosecuted by the EHO?