

**Welcome to the
RSPH Level 3 Award in
Supervising Food Safety and
Hygiene**

Programme aims:

- **Understand food safety hazards**
- **Understand food safety management controls**
- **Understand the role of the supervisor in training**

Unit One:

Understand food safety hazards

- 1.1 Describe the importance of food safety**
- 1.2 State the risk to food safety from pathogenic microorganisms, contamination and cross-contamination**
- 1.3 State the consequences for food safety from biological, chemical, physical and allergenic hazards**

What is the role of a supervisor?

- **A sound, practical knowledge of food safety**
- **Good communication skills**
- **The ability to listen to and mentor staff**
- **Achieving and *maintaining* :**
 - **operational standards**
 - **nutritional standards**
 - **organoleptic and quality standards**
 - **food safety standards**

**The key objective for any food
organisation is to provide**

SAFE FOOD

What is food safety?

The safeguarding of food from anything that could harm human health.

What is food hygiene?

All the practical measures involved in keeping food safe to eat, throughout all stages of handling.

Why is food safety important?

Activity – state at least 6 reasons:

Why is food safety important?

- **For consumer confidence**
- **For the reputation of the organisation**
- **To prevent food poisoning / illness**
- **To meet legal requirements**
- **To minimise food loss**
- **To encourage a positive food safety culture**

Trends

‘At risk’ groups

Food poisoning symptoms

Trends in food illness

- **500,000 cases of food poisoning a year from known pathogens.**
- **Campylobacter is the most common cause of food poisoning in the UK.**
- **Norovirus is the most common cause of infectious intestinal disease in the UK.**

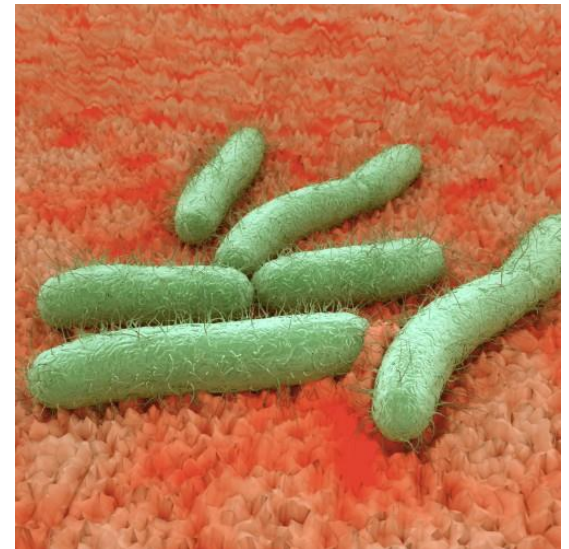
(Food Standards Agency 2014)

Which groups of people are most at risk of food poisoning?

- **Very young**
- **Very old**
- **Pregnant women**
- **Those already ill or with reduced immunity**

Symptoms of Food Poisoning

- Nausea
- Vomiting
- Diarrhea
- Stomach / abdominal pain
- Dehydration



Hazards

Contamination

Contamination of Food - Hazards to Consumers

Physical

Undesirable substances in food like fragments of bone, glass, pieces of metal...

Chemical

Chemical poisons such as bleach and insecticide
Poisonous plants and poisonous toadstools

Allergenic

Food that triggers a severe or life threatening reaction

Biological / microbiological

Bacteria and their toxins
Viruses

Contamination of Food - Physical hazards

Please give some examples of the following physical hazards.....

- **Natural –**
- **Food Handler –**
- **Equipment –**
- **Premises –**
- **Vermin –**

Sources of Physical hazards

Physical hazards:

- Natural – shell, feather, bone, stalks, stones, splinters
- Food Handler – nail, jewellery, hair, button, pen top, plasters
- Equipment – nut, bolt, paint, rust, oil/grease, foil, cling film,
- Premises – wall pins, light fittings, chalk
- Vermin – larvae, eggs, insects, fur

Contamination of Food - Physical hazards

Consequences:

- **Customer complaints**
- **Cuts to lips, mouth & throat**
- **Damage to teeth**
- **Choking / death**

Contamination of Food - Physical hazards

How do we protect food from these hazards?

- Consider where physical hazards come from
- Look at structure & equipment
- Look at staff!
- Keep food covered

Contamination of Food - Chemical hazards

Please give some examples of chemical hazards...



Sources of Chemical hazards

- **Pesticides/insecticides**
- **Food handler – makeup, strong soap/perfume**
- **Cleaning materials**
- **Veterinary drugs**
- **Plasticisers from cling film**



Contamination of Food - Chemical hazards

Consequences:

- Skin rash
- Taint due to perfume
- Stomach irritation
- Breathing difficulties
- Corrosive burn
- Poisoning
- Death



Contamination of Food - Chemical hazards

How do we protect food from these hazards?

- Consider where chemical hazards come from
- Wash fruit, salads and vegetables



Contamination of Food - Allergenic hazards

- The body's immune system reacts to a food (ingredient) that is harmless to most people
- Around 1-2% of adults and 5-8% children have a food allergy
- The food that causes the response is known as an allergen
- Tiny amounts can trigger extreme allergic reactions
- This is known as **ANAPHYLAXIS**

Why does anaphylaxis occur?

- **The body is reacting to a substance that it wrongly perceives as a threat**
- **The allergic antibody (igE) and the allergen react to each other causing anaphylaxis**
- **Sudden release of chemical substances (including histamine) causes the symptoms**

Sources of Allergenic hazards

- **Peanuts**
- **Soya**
- **Wheat/gluten**
- **Mustard**
- **Celery**
- **Sulphites**
- **Lupin**
- **Molluscs**
- **Eggs**
- **Sesame seeds**
- **Milk**
- **Fish**
- **Crustaceans**
- **Sesame**

Identifying food allergens?

Activity – identify the possible food allergens in the following foods:

- Sausages
- Stock cubes
- Chicken korma
- Salmon and cream cheese bagels
- Tuna and egg salad
- Prawn stir fry

Contamination of Food - Allergenic hazards

Consequences:

- **Wheezing / severe asthma**
- **Difficulty in swallowing**
- **Swelling of throat and mouth**
- **Flushing of skin / rashes**
- **Sudden feeling of weakness (due to drop in blood pressure)**
- **Sickness, nausea and abdominal pain**
- **Collapse and loss of consciousness**
- **Death**

Allergen information should be:

- **Accurate**
- **Available**
- **Accessible**

Communicating allergen information:

- **Menus and chalkboards**
- **Visually identify the food allergens in signs**
- **Tell your customers where or how to get the information**
- **Train staff to give out verbally**

Communicating allergen information:

Check *menus* for food allergens

Check *pre-packed foods* for food allergens

Check *recipes & ingredients* for food allergens

Can any food allergen be removed or changed?

Communicate the information to *all* staff

Contamination of Food - Allergenic hazards

How do we protect food from these hazards?

- Consider where allergenic hazards come from
- Staff must be fully aware of content of dishes
- Food only from authorised sources
- Keep food covered

Contamination of Food – Biological hazards

What are the sources of biological & microbiological hazards?



Sources of Biological hazards

- **Mycotoxins: poisons/toxins produced by moulds**
- **Viruses: tiny pathogens that multiply in their 'host'**
- **Parasites: a life form living in or on their 'host'**
- **Pathogenic bacteria: disease producing organism - bacterial contamination is the major cause of food poisoning & food spoilage**



Sources of Food Poisoning Bacteria



Food Poisoning Bacteria

*Clostridium
perfringens*

Campylobacter

*Staphylococcus
aureus*

*Bacillus
cereus*

*Salmonella
species*

Escherichia coli

Contamination of Food - Biological hazards

Consequences:

- Food spoilage
- Food poisoning
- Death



Contamination of Food – Biological hazards

How do we protect food from these hazards?

- **Consider where pathogenic hazards come from**
- **Look at raw food, dirty food & waste**
- **Look at staff!**
- **Keep food covered**



Poisonous foods!

- **Potatoes with green skin**
- **Scombrototoxic fish poisoning (histidine converts to histamine)**
- **Wild mushrooms (specific varieties)**
- **Rhubarb leaves**
- **Red kidney beans (must not be cooked in their soaking water)**
- **Internal organs of fish (e.g. puffer fish)**

Growth needs of bacteria



Bacteria - growth needs?

- **Food**
- **Moisture**
- **Warmth**
- **Acidity and alkalinity**
- **Oxygen**
- **Time**



Bacteria growth needs – food

High risk foods

- **Ready to eat foods: nutrients for bacteria**
- **Supports the growth of pathogenic bacteria**
- **Usually high in protein and moisture**
- **Must be stored at safe temperatures**
- **Intended for consumption without treatment**



High Risk Foods

**Cooked meat and poultry;
cooked meat products;
gravy, soup and stock**

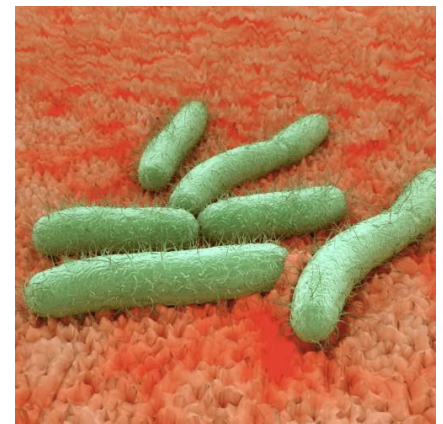
**Milk and eggs,
and products
made from them**

Shellfish

Cooked rice

Which of these are High Risk Foods?

- Celery stick
- Beef lasagna
- Paella
- Orange juice
- Egg sandwich
- Digestive biscuit



Bacteria growth needs – moisture

- Most bacteria need water to survive
- Water is vital to transport nutrients
- a_w details water activity
- The a_w of food is the measure of available water



Bacteria growth needs – warmth



100° TO 130°C SPORES KILLED

100°C BOILING POINT OF WATER

70°C MOST BACTERIA KILLED

37°C BODY TEMPERATURE

17° TO 20°C ROOM TEMPERATURE

1° TO 4°C REFRIGERATION TEMPERATURE

0°C FREEZING POINT OF WATER

-18° TO -25°C FREEZER TEMPERATURE

Bacteria growth needs – warmth

- Bacteria have optimum temperatures where growth is rapid
- Fastest multiplication is between 20°C and 50°C
- Most bacteria grow best at 37°C
- Danger zone is 5°C to 63°C

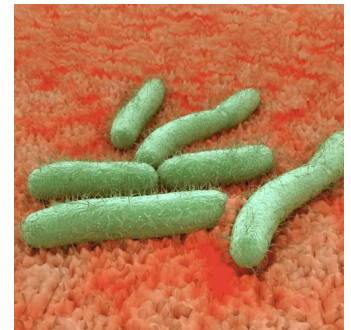


Bacteria growth needs – warmth

Temperature Danger Zone

5°C-----**63°C**

- If food is at or within these temperatures, bacteria will grow
- The bacteria will produce toxins/poisons which can result in illness



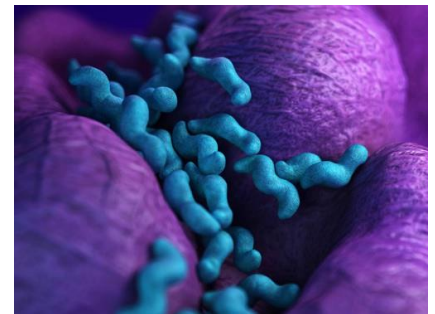
Bacteria growth needs – pH

- pH measures acidity or alkalinity in food
- The scale ranges from 0 to 14
- pH 7 is neutral (water is pH7)
- pH below pH 7 is in the acidic range
- pH above 7 is in the alkaline range



Bacteria growth needs – pH

- **Most bacteria will not multiply in a pH below 4**
- **Acidity can support the preservation of fermented foods**



Bacteria growth needs – oxygen

- **Oxygen is generally present in food due to water content**
- **Some bacteria need oxygen – aerobes**
- **Some bacteria can only multiply when there is no oxygen – anaerobes**
- **Some bacteria can multiply with or without oxygen – facultative anaerobes**



Bacteria growth needs – time

Binary Fission

- Under the right conditions, each bacterial cell can divide and multiply as quickly as once every 10-20 minutes

Names of Common Food Poisoning Bacteria

- **Salmonella species**
- **Clostridium perfringens**
- **Staphylococcus aureus**
- **Bacillus cereus**
- **Campylobacter**
- **Escherichia coli**



Ways in which harmful bacteria get into food...

...from your gut due to handling food after using the toilet without washing your hands

...or moving from handling raw food to handling cooked food without washing your hands

Cross contamination

Cross contamination

The transfer of bacteria from raw or dirty food to cooked or clean food



Cross contamination

- **Bacteria cannot travel independently**
- **They need a vehicle to travel the route from the bacteria source to the food**

Cross contamination

Vehicle:

Things used by bacteria to travel

Route:

The path along which bacteria travel

Bacteria source → vehicle/route → food

Cross contamination!

Activity –

State three vehicles of cross contamination

Cross contamination!

Vehicles of cross contamination:

- Chopping boards
- Knives
- Cleaning cloths
- Hands
- Kitchen utensils (e.g. tongs, spoons)
- Hand contact surfaces (e.g. door handles)
- Food contact surfaces (e.g. table tops)

Prevention of cross contamination

- Assume all sources are contaminated:
 - poultry, food handlers, etc.,
- Raw / soiled foods handled in separate areas
- Vehicles must be controlled by
 - minimal handling and effective hand washing
 - disposable or clean cloths
 - thorough cleaning
- Interrupt the route by:
 - time / plan of work
 - colour coded equipment

Summary Of Unit One

- **Definition and reasons for food safety**
- **'At risk' groups**
- **Symptoms of food poisoning**
- **Food safety hazards – sources and consequences**
- **Protecting food from contamination**
- **Bacteria growth needs**
- **High risk foods**
- **Binary fission**
- **Temperature danger zone**
- **Cross contamination**

Unit Two:

Understand food safety management controls

- 2.1 Explain how food business operators can ensure compliance with food safety legislation**
- 2.2 Describe procedures for the application and supervision of good hygiene practice**
- 2.3 Outline requirements relating to the design of food premises and equipment**
- 2.4 Describe methods and procedures for food safety management**

Food safety law

LAW!

Food safety legislation

Mainly concerned with:

- Preventing the production or sale of unsafe food
- Preventing the contamination of food
- The hygiene of premises, equipment, and personnel
- Temperature control
- The implementation of food safety management systems
- The provision of water supplies and washing facilities
- The control of food poisoning
- The registration of food premises

LAW!

Food safety legislation

Regulation EC 852/2004:

- Register food business with local authority
- Supervise, train and instruct food handlers
- Food prepared and sold in a hygienic manner
- Develop, implement and maintain procedures based on HACCP principles
- Also covers thawing, cold storage and cooling of food

LAW!

Food safety legislation

The Food Safety and Hygiene (England) Regulations 2013

The Food Hygiene Regulations (Northern Ireland) 2006

The Food Hygiene Regulations (Scotland) 2006

The Food Hygiene Regulations (Wales) 2006

- **Temperature controls**
- **Enforcement**

LAW!

Food safety legislation

Effects of poor standards and non-compliance

- damage to reputation / brand image
- complaints
- loss of working days / productivity
- civil action by those affected
- food loss
- food employees lose work / become 'carriers'
- demotivates staff
- enforcement action
- closure of food premises
- fines / custodial action

LAW!

Food safety legislation

Who enforces?

- Environmental Health Practitioners (EHPs)

Their role?

- Ensuring that those dealing with food understand how to produce safe food and comply with the law
- Investigating complaints
- Carrying out inspections
- Investigating food poisoning cases/suspected cases

LAW!

Food safety legislation

EHPs can:

- **Inspect, seize or detain unfit food**
- **Take samples of food and photographs**
- **Interview staff**
- **Expect to enter at reasonable time**
- **Inspect, seize & detain records**
- **Serve notices**
- **Recommend prosecution**

LAW!

Food safety legislation - enforcement

Hygiene improvement notice

- Served by EHP for failure to comply with food law
- The notice must state grounds for non-compliance
- The notice must detail the violation
- The notice must clarify what needs to be completed & timescale (not less than 14 days)
- Failure to comply is an offence

LAW!

Food safety legislation - enforcement

Hygiene emergency prohibition notice/order

- The notice requires immediate closure of premises
- The notice is served where there is an imminent risk to health
- Copies of both the notice (& order) must be served on the operator and clearly displayed
- Once served, the local authority must apply within 3 days to have the action confirmed as an order

LAW!

Food safety legislation – Due Diligence

- A defence of ‘due diligence’ was included in legislation to support food businesses
- It is a defence to prove that all reasonable precautions were taken
- Due Diligence – due care – was employed to avoid the offence
- This requires documented evidence

LAW!

Documents that could support a Due Diligence claim

- Temperature monitoring records (fridges, etc.,)
- Cleaning schedules
- Records of customer complaints (& how they were dealt with)
- Food purchase details and supplier audits
- Staff training and sickness records
- Pest control records
- Food safety management system records

LAW!

Legal responsibilities of food handlers

- Identify and report food safety hazards
- Keep themselves clean
- Keep the workplace clean
- Food handlers have a legal duty to make sure food is safe and does not cause harm or injury to the consumer
- Wear appropriate Personal Protective Equipment (PPE)
- Do everything they can to keep food safe
- Follow workplace rules
- Report if they or anyone in their family is ill
- Keep records

LAW!

Legal responsibilities of food business operators

A food business must not be carried on in insanitary premises

- Large fines and even imprisonment for breaking the law

Proprietors and owners must ensure that premises are:

- Registered with the local authority
- Properly maintained
- Adequately supplied with clean water
- Well lit and well ventilated
- Supplied with suitable facilities for personal hygiene
- Provided with suitable facilities for washing utensils, equipment and food
- Equipped with first aid materials

LAW!

Industry guides

- **The food industry has produced a series of guides.**
- **These publications provide guidance in good hygiene practice.**
- **The use of these guides is voluntary.**
- **There is no legal requirement for food businesses to follow the advice contained in them.**
- **If a food business does follow the guidance, any enforcement authority must take this into account when assessing compliance with legislation.**

Temperature control



Significant Temperatures

- **121°C** - temperature which is needed to kill spores
- **82°C** - temperature for reheated foods in Scotland
- At least **70°C for 2 minutes / 75°C for 30 seconds** – **recommended** temperature and the temperature required to ensure thorough cooking of food
- **63°C** - minimum temperature at which cooked foods must be kept hot until serving
- **37°C** - temperature at which most bacteria can grow very quickly
- **5 – 63°C** - Temperature Danger Zone
- **1 – 4°C** - temperature range for a refrigerator
- **-18 to -25°C** - temperature range for a freezer



Temperature Danger Zone

5° C-----**63° C**

- If food is at or within these temperatures, bacteria will grow
- The bacteria will produce toxins/poisons which can result in illness



Reheating Food

- Keep food refrigerated until you reheat it
- Handle as little as possible
- Divide into small portions
- Heat thoroughly to a high core temperature – the food should be ‘piping hot’ (82°C in Scotland)
- Serve immediately; throw away any lefto



Cooling down hot food

- Find a cool place and remove from cooking dish
- Place food in cold shallow containers
- Loosely cover food (to protect)
- Rinse in potable cold water
- Aim to cool from 55°C to 20°C within 2 hours
- Water baths / fans / blast chillers...



Display & transportation of food

- Hot food to be stored at least 63°C
- Can drop below for **MAXIMUM** of 2 hours
- Cold food to be no more than 8°C
- Can exceed this for **MAXIMUM** of 4 hours (on one occasion)



Cook / chill

- Food is thoroughly cooked to at least 75°C
- Chilled rapidly (63°C or below) within 1.5 hours)
- Stored between 1°C and 3°C
- Reheated (regenerated) to at least 75°C



Is Your Fridge Safe?

- **Store raw and cooked foods in separate units if possible or raw foods below cooked foods**
- **No hot food in the fridge - cool it quickly within 2 hours**
- **Cover all food and don't overload the fridge**
- **Check the temperature is 1 – 4°C**
- **Keep the door closed as much as possible**
- **Keep the fridge clean and defrosted**



Spores

- **Some bacteria can protect themselves from high temperatures**
- **The spore is a coat or shell that protects the bacteria**
- **Spores survive heat/normal cooking**
- **Spores survive dehydration & disinfection**
- **Spores are only killed in canning process: 121°C**
- **Spores germinate during long, slow cooling**



When thawing raw meat and poultry:

- Plan well ahead
- Place the frozen food in a container
- Cover thawing food
- Avoid cross-contamination from thawing food
- Thaw completely and cook as soon as possible
- Once thawed, **never refreeze**



Your role in supervising temperature control

- Ensure that equipment is fit for use
- Clear policies and procedures
- Induction AND refresher training
- Implement & communicate policy via training, 1-2-1s & team meetings
- Monitor:
 - implementation of procedures
 - question staff
 - check temperature records



Personal hygiene

Personal hygiene

High standards are essential to prevent contamination and food poisoning.

The law requires:

- Food handlers to maintain a high standard of personal cleanliness
- Food handlers to wear suitable clean, protective clothing (as appropriate)
- Food handlers to be trained & supervised in food hygiene matters (as relevant)
- Food handlers to be excluded from food handling if infectious



Hazardous hands are:

- **Dirty hands**
- **Hands with long nails**
- **Hands with nail varnish and false nails**
- **Hands wearing jewellery (with the exception of a plain wedding ring)**
- **Hands with cuts and wounds that carry germs**

Hazards from food handlers (1)

- **Staphylococci, E.Coli, Salmonella.....**
- **Hands, nose, mouth, ears, hair**
- **Cuts, boils, lesions, skin infections**
- **Smoking & eating**
- **Jewellery & perfume**



Hazards from food handlers (2)

- **Protective clothing**
- **Completely cover ordinary clothing**
- **Preferably no pockets!**
- **Press studs or velcro fastening**
- **Not worn outside**
- **Procedure to follow when putting it on.....**



Good Hygiene Practice

- **Wherever possible avoid handling food with bare hands**
- **Whenever it is possible to do so, use tongs or other utensils**

Hand Washing

Requirements for hand washing:

- **separate designated wash basins**
- **hot and cold (or appropriately mixed) water**
- **liquid soap**
- **materials for hygienically drying hands**
- **suitable signage**



Always wash your hands:

- **Before handling food**
- **After using the toilet**
- **After handling raw foods**
- **After cleaning**
- **After handling rubbish**
- **After blowing your nose or coughing/sneezing into your hands**
- **After a break**
- **And when they look dirty!**

Personal hygiene?

Activity - draw up a list of 6 'rules' that you would expect food handlers to follow; regarding personal hygiene.



Prevention of Contamination of Food by Food Handlers

Food handlers must:

- Avoid exposing food to the risk of contamination
- Report if suffering upset stomachs, colds or coughs
- Keep cuts covered with suitable waterproof dressings
- Not smoke or spit in the food area
- Wear protective clothing
- Keep themselves and their protective clothing clean
- Report any food safety hazards
- Follow workplace rules



Your role in supervising personal hygiene

- **Lead by example!**
- **Suitable facilities and supplies**
- **Induction AND refresher training**
- **Implement & communicate policy via, 1-2-1s, training & team meetings**
- **Monitor: question staff, swab tests of hands, check sick reporting records**



Pest control



Pest control

Pests contaminate food via their:

- faeces & urine
- saliva
- contact with their bodies (fur, feet)

Other issues:

- damage by gnawing
- food wastage
- results in prosecution
- poor image to customers



Pest control

Rodents

- Rats
- Mice

Birds

- Pigeons
- Sparrows
- Seagulls

Insects

- Flies
- Cockroaches
- Pharaoh ants
- Stored product insects



Common Pests

Rodents

Cockroaches

Flies

Birds

Domestic Pets

Pest Control: Three Point Strategy

- Preventing access
- Denying pests favourable conditions
- Reporting signs of pests



Pest Control: Preventing Access

- **Keep doors and windows closed**
- **Use fly screens on windows**
- **Check deliveries for pests**
- **Find the ways by which pests gain access then prevent entry**



Finding Pests

Always look for the following signs:

- **Droppings and greasy trails**
- **Marks on food**
- **Small mounds of food debris**
- **Nibbled wrappings, holes in cardboard containers or pecked milk tops**
- **Pest carcasses**
- **Unusual smells and noises**
- **Damage to woodwork - mice and rats gnaw**



Protect your food!

- ✓ **Store food carefully**
- ✓ **Keep all areas clean AND tidy**
- ✓ **Remove food waste quickly**
- ✓ **Keep outside and inside bins covered**
- ✓ **Remove any sources of water**
- ✓ **Remove any sources of bedding – avoid paper or cardboard**
- ✓ **Rotate food stocks and check storage areas**
- ✓ **Keep equipment and appliances clean**



Your role in supervising pest control

- Train staff to recognise infestation
- Train staff to prevent conditions that could allow for pest infestation
- Monitor external pest control personnel
- Planned maintenance
- Audit:
 - no signs of pests
 - premises are proofed against entry
 - deliveries are checked for pests



Pest control

***Activity* - list six ways of preventing or discouraging rodents from entering food premises.**



Waste control

Storage & disposal of waste

- **Waste food must be kept separate from paper, etc**
- **Waste food must be removed at least daily from food area**
- **Accumulated waste creates a food safety hazard**
- **External bins & area must be secure and regularly cleaned**
- **External bins must be stored off of ground**

Food safety hazards resulting from poor waste storage

- unpleasant odours that attract pests (that go on to multiply)
- difficult to clean if there is a build up of food waste
- contamination of food due to exposure to microbial, physical or chemical contaminants
- multiplication of bacteria

Cleaning and disinfection



Cleaning

‘It looks & smells clean.....’ – but is it?

The consequences of poor cleaning:

- **Physical contamination hazards**
- **Chemical contamination hazards**
- **Microbial hazards**
- **Corrosion of equipment**
- **Premature replacement of equipment**
- **Equipment breakdowns**
- **Possible wastage of cleaning materials**
- **Effluent treatment**



Cleaning

‘The systematic application of energy to a surface or substance, to remove dirt’.

Three forms:

- **Kinetic energy (physical/mechanical)**
- **Thermal energy (hot water)**
- **Chemical energy (detergents)**

A combination is normally used.



Cleaning and Disinfection Chemicals

- Detergents
- Disinfectants
- Sterilizers
- Sanitizers



**Always follow the
manufacturer's instructions**

Cleaning - Detergents

Detergents remove grease and other soil.

They should be:

- harmless to handlers
- non-toxic
- easy to rinse
- odourless & tasteless (non-tainting)



Characteristics:

- surfactancy (reduces surface tension of water)
- dispersion (enables detergent to 'lift' dirt)
- suspension (prevents re-deposition of the dirt)

Cleaning - Disinfection

Reduces bacteria to a safe level.

Steam

- lances producing steam jets
- useful for machinery or difficult to clean surfaces

Heat

- 82°C for 30 seconds
- odourless & tasteless (non-tainting)

Chemicals:

- must not taint food



Sanitiser

A detergent and disinfectant combined.

Cleaning Chemicals

- fit for purpose
- kept in original containers (safety & instructions)
- staff trained (& reminded) how to use
- kept separate from food areas
- not mixed (will react or neutralise)
- protection where necessary



Types of Cleaning

- **Clean-as-you-go**
- **Scheduled cleaning**
- **2 – stage cleaning**
- **Cleaning-in-place**
- **Cleaning-out-of-place**



A cleaning schedule?

Activity - what should a cleaning schedule specify?



Cleaning

A cleaning schedule?

- **what is to be cleaned**
- **who is to clean**
- **when (frequency & actual date)**
- **how (chemicals / equipment)**
- **safety precautions /protective clothing**
- **who will monitor that it has been cleaned**



Cleaning

Working surfaces and equipment used for preparing food must be thoroughly cleaned to avoid contamination...



Cleaning supervision

Your role in supervising cleaning



- **Planning & organising**
- **Suitable facilities and supplies**
- **Induction AND refresher training**
- **Implement & communicate policy via training, 1-2-1s & team meetings**
- **Audit to verify that cleaning is effective!**
- **Monitor: use & storage of chemicals, cleaning schedules, observations, swabbing.....**

Food storage control



Food storage

- **Storage areas should be cool, dry, clean and ventilated**
- **Check deliveries on arrival**
- **Store food off the floor**
- **Rotate stock: First In, First Out (FIFO)**
- **Keep food covered**
- **Do not use damaged tins**
- **Dispose of unfit food safely**
- **Check storage areas regularly**



Expiry date marking of food

All pre-packed food should come with an expiry date on the label, either:-

‘Use by’

or

‘Best before’



Expiry date marking of food

‘Use by’ mark:-

- **High risk / highly perishable foods**
- **It is a legal offence to sell or ‘Use by’ foods beyond the specified date**
- **A significant food safety risk if eaten after date expiry**



Date marking

Activity - which of the following food should carry a 'Use by' date?

1. Sushi
2. Cherry cheesecake
3. Tin of chicken soup
4. Custard cream biscuits
5. Custard tart
6. Chicken Caesar salad
7. Lamb biryani ready meal
8. Prawn cocktail crisps



Expiry date marking of food

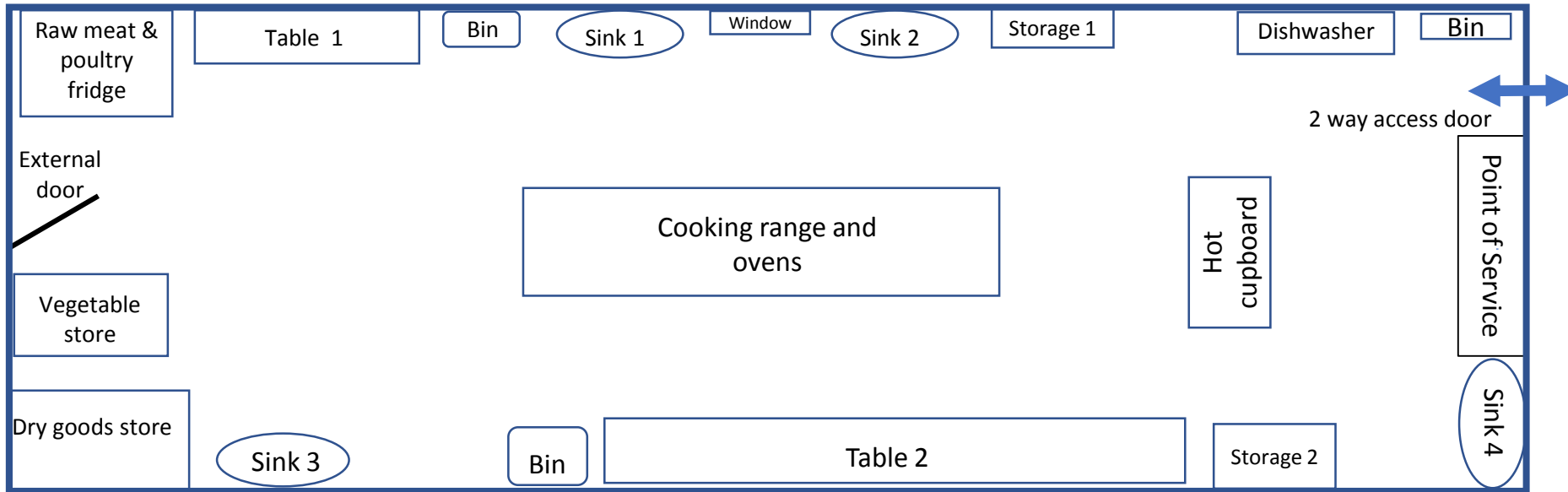
‘Best before’:

- **Foods with longer shelf life**
- **Applied to canned, dried or frozen foods**
- **Not an offence to sell or eat these foods beyond the specified date**
- **No food safety risk after date expiry - but affects quality**



Food premises

Jasmine's Chicken Smokehouse



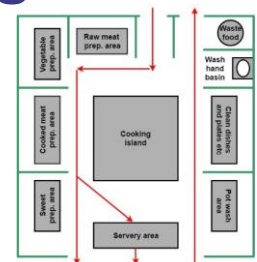
The above kitchen floor plan is of Jasmine's new restaurant, 'Jasmine's Chicken Smokehouse'. Jasmine wants to make sure that the kitchen is suitable for providing safe food. She will be serving freshly made hot Jerk chicken, hot rice, cold salad and pineapple cake.

1. The chicken will require marinating before cooking - which table should it be prepared on?
2. Which table could the salad and pineapple cake be prepared on?
3. Where should the cleaning materials be stored?
4. A separate wash hand basin is needed but due to plumbing issues, one of the existing sinks will have to be converted. Which one of the existing sinks would be in the best location to convert to wash hand basin?
5. When the rice is cooked for service, where should it be immediately stored?
6. Jasmine has two fly killers to install – where is the best place for them?

Food premises

Lay-out:

- work flow should be linear
- raw/dirty processes separated from cooked/clean
- facilities for personal hygiene
- capable of being cleaned
- pests denied access food, water & harbourage
- suitable provision for staff welfare



Level 3 Food Safety

Food premises

Construction:

- materials to be non-toxic, durable, easy to maintain & clean
- light fittings to be covered
- structure to be well insulated (to avoid mould & condensation)
- avoid cavities
- surfaces to be smooth, impervious, durable and capable of being cleaned
- water resistant grouting/fungicidal paint
- crash rails/wall & floor stops to avoid damage

Food premises

Doors and windows:

- all surfaces capable of being cleaned
- use fly screens
- sloping internal window sills
- door handles & finger plates capable of being disinfected
- swing doors with kick plates
- self closing doors
- external doors proofed against pests

Food premises

Recommended specifications

- floors – 1 to 60 slope
- ventilation - below 25°C
- lighting
 - 150 lux in storerooms
 - 500 lux in preparation areas

Food premises

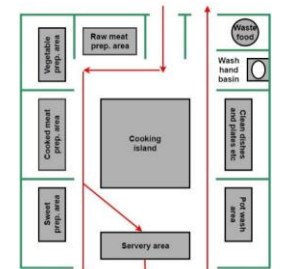
Handwashing facilities:

- **basins near entrances to food areas**
- **easy accessible & not obstructed**
- **signs indicating they are for handwashing only**
- **hot/cold water, liquid soap, drying facilities**
- **designated only for washing hands**
- **mixer and non-hand operated taps are preferable**

Food premises

Equipment

- it should avoid product contamination
- capable of being cleaned
- sited to allow for cleaning
- sited to minimise cross contamination
- preparation areas to be joint free & impervious



Level 3 Food Safety

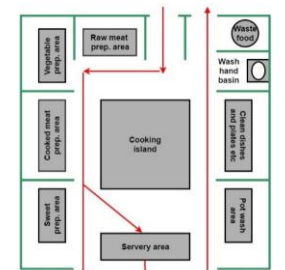
Food premises

Toilet facilities

- **All new premises should be provided with adequate staff toilet facilities, ventilated & lit.**
- **Staff toilets must not open directly into an area where food is prepared.**
- **Staff areas should allow for thorough cleaning**
- **Suitable and sufficient washing facilities must be provided at accessible places.**
- **Sufficient storage for outdoor clothing and footwear must be available.**

Your role in supervising maintenance

- Supervise external contractors
- Check for effective cleaning
- Planned maintenance
- Monitor: leaking taps, damaged plus, food storage temperature records.....



Food safety management

What is Food Safety Management

- **Food safety management is directing or controlling food safety.**
- **To do this effectively, we need to learn from previous food safety incidents....**

Food related illness

The main causes of illness are:

1. Preparing food too far in advance
2. Storing food at ambient (unsafe) temperatures
3. Inadequate cooling
4. Inadequate reheating
5. Undercooking
6. Inadequate thawing
7. Cross contamination
8. Improper hot holding
9. Infected food handlers
10. Raw food consumed
11. Use of contaminated ingredients

Food Safety Management System

- **A food safety management system (FSMS) needs to be developed, implemented and maintained to manage these issues.**
- **Food businesses have a legal duty to implement an effective food safety management system based on HACCP principles.**

What is a HACCP based food safety management system?

Hazard Analysis Critical Control Points

- **Current documented procedures that cover all food safety hazards and the required controls in the food operation**

HACCP – the background

- **HACCP was conceived in 1950s**
- **US National Aeronautics and Space Administration (NASA) asked Pillsbury to design and manufacture ‘safe’ food for space missions**
- **NASA was already using a risk assessment process in engineering – which was then applied to food safety**

HACCP – how does it work?

- HACCP has been recognised internationally as a reliable food safety management system
- Based on risk assessment
- *Predicting risk* – not relying on end testing

HACCP – what does it mean?

Hazards?

- A chemical, physical, allergenic or bacterial risk

Control Points?

- A step in a process/recipe in which a control should be applied – which will prevent or reduce a hazard to an acceptable level
- There can be a number of control points but not all are critical to controlling the hazard

So what are Critical Control Points (CCPs)?

- An essential step in the process/recipe in which control can be applied
- It is vital that CCPs are only used for those steps that are truly critical to food safety
- Keep CCPs to a minimum to focus attention on the essential controlling factors
- A CCP is often the final chance to minimise a food safety risk

How is this measured?

- **CCPs will often have critical limits**
- **A critical limit must be a value**
- **The value must be measurable**
- **This would normally be a temperature or a time.....**

E.g. 70°C for two minutes

- **If the CCP is breached, the food must be destroyed**

HACCP

Activity - which one of the following is an example of a CCP?

1. 'Reheat the chicken pie to 75°C for 15 minutes'.
2. 'Reheat the chicken pie until hot and steaming'.
3. 'Reheat the chicken pie for 30 minutes at gas mark 6'.

The HACCP plan

- **Details of the HACCP team**
- **The scope of the HACCP plan / details of product**
- **A floor plan**
- **Flow diagram of the food process**
- **Analysis of hazards**
- **Control Points**
- **How CCPs were agreed**
- **Critical limits**
- **Verification plans**

The food business must already be operating Good Hygiene Practice (GHP).

Prerequisite programmes must be in place:

- Management commitment
- Cleaning schedules
- Effective maintenance
- Suitable premises & equipment
- Workflow that minimizes cross contamination risk
- Pest management
- Waste and drainage control
- Raw material control / approved suppliers
- Potable water and ice
- Staff trained in hygiene
- Ability to trace or recall products

The Seven Principles of HACCP

- 1. Conduct a hazard analysis**
- 2. Determine the Critical Control Points**
- 3. Establish Critical Limits**
- 4. Monitoring control of the CCP**
- 5. Corrective action taken when CCP is not under control**
- 6. Verification to confirm HACCP is effective**
- 7. Effective documentation**

The Seven Principles of HACCP

1. Conduct a hazard analysis.

- A food hazard is anything that could harm the consumer
- Most probable hazard is pathogenic bacteria
- Hazards can occur at any stage in the process of preparing, cooking and serving food
- Involve staff and analyse the process

The Seven Principles of HACCP

2. Identifying Critical Control Points

- **Control Points are steps where the hazards must be controlled to reduced (or eliminated) to a safe level**
- **The final opportunity to do this is the Critical Control Point**
- **The ‘Cook’ step may be the only CCP**

The Seven Principles of HACCP

3. Establishing critical limits

- **These must be precise and measurable**
- **If critical limits are not met, corrective action must be taken**

The Seven Principles of HACCP

4. Monitoring

- **Checks at each Critical Control Point**
- **Checks that critical limits are not exceeded**
- **This may be just checking a cooking temperature**

The Seven Principles of HACCP

5. Corrective actions

- **If a critical limit is exceeded, action must be taken**
- **This could be mean longer cooking or could require that the food is disposed of**
- **All corrective actions must be recorded**

The Seven Principles of HACCP

6. Verification

- Checks that the HACCP system is working effectively and compliance with HACCP plan
- Audits, calibration of probes and reviews of corrective actions are examples of verification methods
- Ideally should be done by someone other than the person monitoring

The Seven Principles of HACCP

7. Documentation

- Record keeping should be sufficient to enable verification of food safety controls
- Documentation should be simple and accessible
- Should include monitoring records, prerequisite programmes and the HACCP plan

HACCP key points

- **A systematic, preventative approach to food safety**
- **Focuses on hazards as a means of preventing food poisoning**
- **Designed to control hazards at points critical to food safety**
- **Key actions can then be taken to reduce or eliminate the risk**

HACCP – the benefits

- **Compliant with legislation**
- **Demonstrates ‘due diligence’ (due care)**
- **Proactive and cost effective**
- **Controls are easy to monitor**
- **Generates & supports a food safety culture**
- **Provides a food safety infrastructure**

HACCP

Activity - identify a Critical Control Point in a food business that you are familiar with – and include the Critical Limit.

HACCP for small businesses?

- **Small team**
- **High staff turnover**
- **Little technical or scientific expertise**
- **Large and changing menu**

‘Safer Food, Better Business’ (and equivalents)

- **Designed for small businesses by Food Standards agency**
- **Correct use will demonstrate compliance with the law**
- **Contains all documentation needed**

Monitoring

What must supervisors monitor?

Delivery & storage:

- **Purchase from accredited suppliers**
- **Accept deliveries only if they are transported in a clean and suitably equipped vehicles**
- **Inspect deliveries on arrival (temperature/date/fit for human consumption)**
- **That unpacking of deliveries is kept separate from food**
- **Store deliveries in the correct place immediately**

What must supervisors monitor?

Working methods:

- **Cleaning materials are kept separate from food**
- **Cleaning & disinfection is consistent**
- **Waste food is removed regularly**
- **Effective procedures for cooling hot food before refrigeration**
- **Temperature control is systematic & embedded**

What must supervisors monitor?

Food handler and visitor activity:

- Monitor their work
- Control the access of visitors in high-risk areas
- Remove equipment to be repaired away from food areas
- Put a barrier against areas that are being maintained or decorated
- Train staff thoroughly

Monitoring as a supervisory tool

Monitor:

- ✓ Deliveries
- ✓ Food stock
- ✓ Staff practice (including hand washing)
- ✓ Cleaning
- ✓ Times and temperatures
- ✓ Record keeping
- ✓ General GHP

Monitoring

Activity - state 6 actions that a supervisor should monitor in a busy kitchen.

Supervisors need to understand and be aware of:

- **The variety of sources of contamination**
- **The implications of differing types of hazards**
- **How to control and manage risk**
- **What controls are needed to protect food from contamination**

Evaluate food safety controls if:

- Temperature inconsistencies
- Customer complaints
- Enforcement action
- Any breach of CCPs
- Regular physical contaminants

Quality assurance

- A continuous process of assessment and improvement
- Proactive – not reactive

Summary Of Unit Two

- **Food safety law**
- **Temperature control**
- **Personal hygiene**
- **Pest control**
- **Waste control**
- **Cleaning and disinfection**
- **Food storage control**
- **Premises**
- **Food safety management systems**
- **Monitoring and reporting**
- **Corrective actions**

Unit Three:

Understand the role of the supervisor

- 3.1 Describe the responsibility and level of authority of all relevant staff with respect to food handling practices**
- 3.2 State the requirements for induction and on-going training of staff**
- 3.3 Explain the importance of effective communication of food safety procedures**
- 3.4 State the importance of promoting a food safety culture**

Role & responsibilities of a supervisor

- **Communication of policies & procedures to food handlers, visitors, suppliers and contractors**
- **Ensures implementation of policies and procedures**
- **Monitoring of essential hygiene practices (cleaning, temperature control, hand washing, etc.,)**
- **Reports and feedback to management on food safety issues**
- **Link between food handlers and managers**

Food handler training

Role of supervisor in staff training

Licence to practice?

Activity – state two methods of assessing if a staff member can safely handle food

:

Role of supervisor in staff training

Assessing food handler competency:

- Observation of how they work
- Asking questions on their knowledge and understanding:
 - how do they put theory into practice?

:

Role of supervisor in staff training

Food handler competency

- **A competent person is someone who can satisfy the requirements of knowledge, skills and attitudes that are needed to carry out a specific activity**

i.e. knowing what to do and doing it

Role of supervisor in staff training

Legal requirements:

- *‘Food handlers are supervised and instructed and/or trained in food hygiene matters commensurate with their work activity’*
Regulation (EC) 852/2004
- Plus, those responsible for for the development and maintenance of HACCP programmes must be trained in HACCP principles

Role of supervisor in staff training

When is training needed?

- **Induction**
- **On-going / refresher**
- **Corrective / remedial**
- **New equipment**
- **New systems or procedures**

Role of supervisor in staff training

Induction training

Activity – list at least six topics that should be covered in induction training:

Role of supervisor in staff training

Induction training

- Hand washing – how and when
- Protective clothing
- Jewellery, false eyelashes and finger nails
- Covering cuts and sores
- Reporting of illness (& family illness)
- Reporting of hazards
- Follow instructions and workplace rules

Role of supervisor in staff training

For learning to be successful, it must be:

- Enjoyable
- Relevant
- Highly participative for those attending
- Understandable
- Accurate
- On-going

What are you trying to achieve:

- Improve the recipients performance and/or attain a required level of knowledge or skill
- Change in behaviour

Role of supervisor in staff training

Set objectives when planning training:

‘learners will be able to....’

Those objectives need to be SMART:

- **Specific**
- **Measurable**
- **Achievable**
- **Realistic**
- **Timed**

When planning your training, keep the learning objectives central to the training

Role & responsibilities of a supervisor

Happy staff are productive staff:

- Be responsive to feedback
- Be fair and consistent
- Show support
- Encourage staff to develop and to be multi skilled
- Keep staff updated

Effective communication

Communicating food safety controls

- A productive three-way process
- Staff to supervisor / supervisor to manager
- Seek feedback from staff – and act on it
- Use ‘active listening’
- Use communication methods that suit staff
 - verbal
 - noticeboard / newsletter
 - team meetings
 - individual 1-2-1 meeting

Communicating food safety controls

- **Lead by example**
- **Provide staff with results of audits, etc.,**
- **Give constructive feedback to staff**
- **Encourage a 'reporting' culture**
- **Provide necessary resources**
- **Clear policies & procedures**
- **Monitor activity to check for embedded practice**

Food safety culture

Food safety culture

What is it?

- food safety focuses on controlling hazards
- but this is mainly predicated on food handler behaviour
- food handler practice is primarily influenced by the food safety *culture* of the food business
- the values, ethos and attitudes of the food business
- relates to how people actually behave, rather than what the procedures specify

An effective food safety culture

- **Effective leadership – lead from the top**
- **Lack of complacency**
- **Willingness to learn and progress**
- **Demonstrate ethical attitude and values**
- **Fully involve staff in decisions**
- **Demonstrate a proactive attitude**
- **Remove conflicts between actual and desired working practice**
- **Proven efficient systems**

Summary Of Unit Three

Role of the supervisor

Staff training

Effective communication

Food safety culture