

# Section 1 – Why bother?

## Objectives

- Define the terms 'food hygiene', 'food poisoning' and 'foodborne disease'.
- Name the different classes of micro-organism and where they are found.
- Identify the main conditions bacteria need in order to grow.
- Explain how the growth of bacteria can be controlled.

### Define the term 'food hygiene'?

#### What is food hygiene?

Food hygiene is the practice of ensuring food is safe, sound and wholesome, by protecting it from contamination, preventing bacterial multiplication and by the destruction of harmful bacteria.

### Define the term 'food poisoning'?

#### What is food poisoning?

Food poisoning is an illness that occurs usually between 1 and 36 hours after eating contaminated or poisoned food, the most common symptoms being diarrhoea, vomiting and dehydration.

Food workers must report all instances of diarrhoea, vomiting and skin infections to a supervisor before returning to work and must not work while suffering from these symptoms. Failure to observe these rules is the most common reason for food workers being prosecuted.

### Define the term 'foodborne illness'?

Foodborne illness is an illness that occurs when food containing harmful bacteria is ingested. This term also covers foodborne disease and food poisoning.

### Define the term 'foodborne disease'?

Foodborne disease – A disease or illness caused by micro-organisms carried by food or water.

### What are the causes of food poisoning?

- Bacteria – Pathogenic bacteria are the most common cause
- Viruses
- Metals
- Chemicals
- Natural poisons in food (toadstools, green potatoes, and red kidney beans)
- Moulds

### Factors contributing to food poisoning cases

- Food prepared too far in advance
- Cooling food too slowly
- Not re-heating food to high enough temperatures
- Using cooked food contaminated with food poisoning bacteria
- Poor food safety practices

### People most at risk

- The elderly
- Babies and toddlers
- Pregnant women
- Individuals who are already unwell

**Spores** are small round bodies with thick walls which allow the bacteria to stay dormant but alive, over long periods of time, e.g. during freezing, defrosting, cooking and cooling. When conditions become favourable the spores germinate and active bacteria are produced once more. It is vital therefore that food is kept out of the danger zone as far as possible.

**Toxins** are poisonous chemicals produced by certain types of bacteria, e.g. the bacteria *Staphylococcus aureus* produces a toxin in food, which normally causes severe illness very soon after the food is eaten.

### Name the different classes of micro-organism

Bacteria  
Yeasts  
Fungi  
Moulds  
Viruses

### Conditions required for the growth of bacteria

- Moisture
- Time
- Food
- Warmth (37°C optimum for growth)
- Oxygen
- pH

Once the conditions required for growth are ideal, bacteria will multiply by **binary fission**: simply by splitting in two. Most bacteria will double every 10 to 20 minutes.

### Preservation methods

To preserve food, remove one or more requirement for bacterial growth. For instance, dehydrate food to remove moisture.

### **What is the danger zone?**

The danger zone is the optimum temperature range within which bacteria can multiply: +5°C to + 63°C.

### **Important temperatures to note**

- Cook to a minimum core temperature of 75°C: too hot for bacteria to survive. At this temperature bacteria are killed off and food is deemed safe to eat
- 0 to +5°C: bacteria do not multiply or multiply very slowly
- -18°C or below: bacteria are dormant and do not multiply at freezer temperatures
- Pasteurisation 72°C x 15 seconds

### **How can bacterial growth be controlled?**

- Good quality control systems, such as not storing raw food next to ready-to-eat and cooked food
- Temperature control, such as cooking food to a minimum core temperature of 75°C
- Personal hygiene, such as washing hands after visiting the toilet and then preparing food
- Cleaning and disinfecting

### **Define the term 'due diligence'**

A food business must be able to demonstrate that it has done everything within its power to safeguard consumer health.

### **The legal requirements of food handlers**

- Keep yourself clean
- Keep the workplace clean
- Protect food from contamination or anything that could cause harm
- Follow good personal hygiene practices – e.g. hand washing
- Wear appropriate protective clothing
- Tell your employer if you are suffering from or are a carrier of a foodborne disease

### **Required training of food handlers**

- By law food handlers must receive adequate supervision, instruction/ or training in food hygiene for the work they do
- Those responsible for HACCP should also receive adequate training

#### **It is recommended the following takes place:**

- Training certificates should be renewed every 3 years
- Training should be refreshed – this generally takes place annually
- Training records should be kept

Food safety is best defined as making sure food is protected from harm of any kind. It is the protection of consumer health and well-being by safeguarding food from anything that can cause harm.

## Section 2 – Food Contamination

### Objectives

- Identify sources of bacteria and how they are introduced into the food chain
- Distinguish between high risk and low risk foods
- Define the term 'cross contamination' and state how it occurs
- Spoilage, pathogenic and beneficial bacteria
- Name the common food poisoning bacteria

### Sources of bacteria

Where bacteria originate	Type of bacteria
Animal	<i>E. coli</i>
Poultry & eggs	<i>Salmonella</i> & <i>Campylobacter</i>
Vegetables	<i>Clostridium perfringens</i>
Shellfish	Viruses
Milk	TB
Water	<i>E. coli</i>
Hands	<i>Staphylococcus aureus</i>

### Define contamination

#### What is contamination?

Contamination is the presence of any harmful or objectionable substance in food.

#### Examples of cross contamination -

##### Bacterial contamination of food

- Direct - Raw meats touching ready-to-eat products
- Indirect - Using a knife to cut raw meat and then using the same knife to cut a ready-to-eat product
- Airborne contamination – sneezing over food

##### Preventative measures against cross contamination

- Store raw food and cooked food separately
- Keep raw meat on the bottom shelf of the fridge
- Use different chopping boards and knives for raw and cooked/ready-to-eat foods
- Always cover foods that are stored in the fridge

## Bacteria

### Three types of bacteria

- Pathogenic bacteria – cause illness
- Beneficial bacteria – used to make beer, cheese and yogurt
- Spoilage bacteria – cause food to rot

### Pathogenic bacteria versus spoilage bacteria

These types of bacteria differ: pathogenic strains cause illness in humans and can be difficult to detect, while spoilage bacteria cause food to rot or perish and signs can be more readily detected.

### Examples of common food poisoning (pathogenic) bacteria

*Campylobacter*

*Salmonella*

*E. coli*

It is important to note that **not** all bacteria cause poisoning and spoilage.

### Examples of beneficial bacteria

Some bacteria have beneficial properties:

*Lactobacillus casei immunitass*

*Lactobacillus plantarum*

### Define the term 'high-risk foods'

High-risk foods support the growth of pathogenic bacteria because they are high in protein and water. High risk foods are usually 'ready-to-eat' foods intended for consumption without further cooking, such as coleslaw, ready washed salad, and cooked rice.

### Name the three types of contamination

Chemical - e.g. cleaning products and pesticides poison food products

Physical - e.g. foreign objects - parts of machinery fall into products during their manufacture, such as plasters and hairs

Microbial - contamination by bacteria

### Common foods that can cause allergic reactions in consumers

- Peanuts
- Tree nuts
- Eggs
- Shellfish
- Cow's milk
- Wheat (gluten)
- Soy

**Symptoms of allergic reactions**

- Tingling around the mouth
- Swelling around the nose, mouth and throat
- Difficulty breathing
- Rashes
- Vomiting
- Diarrhoea
- Cramps
- Anaphylactic reactions

**Understand procedures required for dealing with foods that may cause allergic reactions**

As a food handler you must be careful not to inadvertently contaminate food that is supposed to be free from allergens. For example, do not place peanuts on a surface or next to another food group that wouldn't naturally contain peanuts.

You must be careful to give the correct information about ingredients to customers who ask.

## Section 3 – Food delivery and storage

### Objectives

- Identify the correct procedures for receiving and accepting food deliveries
- Identify the correct procedures for storing food
- Name the various food storage areas and the potential hazards associated with each area
- List controls/checkpoints for the hazards identified in each food storage area.

### Correct procedures for receiving and accepting food deliveries

It is important that procedures are put in place for receiving and accepting deliveries of food products and that they are stored correctly and efficiently once the delivery has been accepted.

### The following procedures should be observed

- Audit the suppliers' premises to ensure their manufacturing methods, premises and quality control procedures meet the standards you expect. Smaller businesses may not be able to do this, so it is advisable to buy from a reputable supplier.
- Only buy from a reputable supplier
- Specify delivery requirements, especially the acceptable temperature of the product
- Check the temperature of refrigerated and frozen products; do not accept products if not at the required temperature
- Check all deliveries on receipt for damaged packaging, and any spoilage to products
- Ensure all staff are trained on the protocol for accepting deliveries
- Buy the correct quantity of food – never buy more than can be properly stored
- Keep records of deliveries so the product can be traced in the event of contamination occurring

### Check list for delivery vehicle/food conveyances/containers

The delivery vehicle/conveyance/container must:

- Clean and pest-proof
- Weatherproof
- Maintained at the correct temperature: 0°C to +5°C for refrigerated and -18°C or below for frozen
- Not be used for transport of non food items where it may result in contamination
- Do not overload the vehicle
- Should provide effective separation of products
- Bulk food item containers clearly marked for 'food stuffs only'

**Correct procedure for storage of food products**

- Dispose of outer packaging/boxes prior to storage
- Store raw foods (i.e. meat, poultry and shellfish) separately from cooked or prepared food. Store raw food below cooked /ready-to-eat food.
- Rotate stock – first in first out (FIFO). (Always check use-by-dates)
- Cleaning materials such as detergents should be stored in a separate area
- Foods can be preserved by drying, freezing and canning

**Food storage areas and potential hazards****Potential hazards of dry goods storage (e.g. tins, rice and pasta)**

- Bacterial growth due to cross contamination and excessive moisture
- Contamination by pest and insects
- Chemical contamination from cleaning agents

**Controls in dry goods store**

- Dry goods store must be clean, well lit, ventilated and adequately shelved
- Food must be stored on shelves above the floor
- Containers used for storage must be covered
- Windows must be fitted with insect screens and the store must be kept free from infestation

**Potential hazards in fruit and vegetable store**

- Insect infestation
- Accelerated spoilage caused by heat and moisture
- Soil on fresh vegetables - can be a problem because of the bacteria soil contains

**Controls in fruit and vegetable store**

- Fruit and vegetable store should be clean, well lit, ventilated and pest proof
- Ensure good air circulation
- Discard spoiled fruit and vegetables as this can contaminate healthy products
- Store salad items and soft fruits (except bananas) in the salad drawer of the refrigerator

**Potential hazards in refrigerated storage**

- Bacterial growth
- Cross contamination
- Food beyond date marking

### Controls in refrigerated storage

Refrigerating foods slows down the multiplication of bacteria:

- Maintain temperatures of 0-5°C
- Store raw and cooked/ready-to-eat food separately
- Do not place hot foods directly in the refrigerator as this will cause the temperature of the refrigerator to rise above 5°C
- Do not overload the fridge as cold air needs to be allowed to circulate
- Defrost and clean the fridge or freezer box regularly
- Keep doors closed to maintain the temperature
- Avoid prolonged storage
- Temperature of food should be recorded

### Potential hazards of freezer storage

- Freezer burn – freezer burn damages the quality of your food
- Cross contamination – ensure products are sealed and wrapped

### Control in freezer storage

Freezing foods makes bacteria in the product dormant

- Maintain temperatures of -18°C or below
- Defrost and clean regularly
- Do not place hot foods directly into the freezer
- Do not overload
- Ensure door is kept closed
- Avoid prolonged storage

### The importance of 'use-by' and 'best-before' dates on foods.

All pre-packaged foods come with a date indication on the label. These are either:

**Best before dates** – these usually appear on canned, dried and frozen products and indicate the date until the food may be in its best condition. It is **NOT** an automatic offence to sell products past their best before dates, but their quality might be compromised, e.g. biscuits can go soft.

**Use by dates** – are found on high risk foods likely to cause food poisoning. It is an offence to sell food past its use by date. If food is past its use by date it should be disposed of immediately.

# Section 4 – Food preparation, cooking and serving

## Objectives

- Defrosting frozen foods
- Preventing the contamination of food during preparation, cooking and serving
- Cooling and freezing foods
- Microwave defrosting of food

## Temperature checklist

Danger zone: +5 to 63°C

Cook foods to minimum core temperature of 75°C

Hold hot foods above 63°C

Refrigerated foods: 0 to 5°C

Freeze foods below: -18°C

Reheat foods to a minimum core temperature of 70°C to prevent any bacteria from surviving. Foods should only be reheated once following cooking or hot holding.

At times it may be necessary to reheat food. However, it is safer to serve freshly cooked food, as surviving bacteria will not be able to multiply and cooking is the most effective medium for destroying bacteria.

Food must be cooled quickly after cooking to minimise bacterial multiplication. Large food products, for example a joint of meat, may take a long time to cool. To cool in the most hygienic of methods the product should be placed in a ventilated store for 90 minutes then chilled.

## Defrosting

Before frozen food is cooked it must be thoroughly defrosted in a chiller, microwave, refrigerator or specialist defrosting unit.

## Potential risks when defrosting

- Risk of bacterial regeneration during thawing and thus higher numbers of bacteria
- The risk of additional contamination
- The risk of enzyme/structural damage to the food during freezing

### Prevention of food contamination during food preparation

- Separate work areas, utensils, equipment for fish, meats and vegetables/salad
- Wash food in a designated food preparation sink using potable water only
- Minimise the time that food is left in the danger zone
- Minimise handling of food

### Prevention of contamination during holding and serving

- Never handle food that is ready to eat
- When keeping food cold it must be kept below? **5 °C**
- When keeping food hot it must be kept above? **63 °C**
- Hot food must be served within **X** minutes of cooking? **90**

### Cooling foods

Use the following methods to cool food more rapidly through the danger zone

- Decanting
- Portioning
- Chilling

### Freezing and reheating

- Food should be suitably wrapped or placed in sealed containers
- Freeze food in portions
- Label and date food to aid stock rotation
- Allow air circulation
- Food should not be reheated more than once
- Reheat to a minimum core temperature of 70 °C

### Microwave defrosting of frozen food

Microwaves provide a method of cooking food. Food cooks from the outside inwards. Heat not the microwaves, kills the bacteria. Microwaves also provide a fast method of defrosting foods: it is important to ensure that food products are defrosted through to the core.

### Taking temperatures

It is a legal requirement to ensure food is cooked to and stored at certain temperatures. In order to ensure these temperatures are being met the following measuring devices can be used and it may be useful to record all temperatures.

- Hard probe thermometer. When using a probe thermometer it should be properly calibrated, and cleaned using hot water and detergent after use. Before re-using the thermometer it should be disinfected with anti-bacterial wipes
- Infra red probe thermometer

You must ensure that the **core temperature** is checked with a thermometer. The core is the centre or thickest part of the food.

## Section 5 – Personal hygiene

### Objectives

- Identify the importance of personal hygiene in the work place
- Recognise good personal hygiene practices
- Explain how poor personal hygiene practices can cause contamination of food
- State the legal obligations in relation to personal health and hygiene.

**Did you know that you can act as a carrier of food poisoning?**

**Did you know you have a moral and legal responsibility not to contaminate food?**

**Personal hygiene is defined as**

- Keeping the body, including the hair and especially the hands, clean.
- Avoiding poor personal hygiene habits
- Wearing clean, protective outer clothing and appropriate headgear

**Why is personal hygiene important?**

- It prevents food poisoning/contamination
- To comply with the law
- Appearance
- Staff morale

**What is a carrier?**

A person who harbours, and may pass on, harmful bacteria, even though that person may show no signs.

There is no excuse not to wash your hands - it is a legal requirement in food premises to provide separate facilities for washing hands.

**The main reason food handlers wash their hands is to protect food from biological contamination.**

**When should hands be washed?**

**Before**

- Starting work
- Handling food, especially if cooked or ready-to-eat, as the product will receive no further treatment to eradicate bacteria
- Changing from one job to another, e.g. between handling money and preparing food.

**And after**

- Using the toilet
- Handling raw meat
- Sneezing, coughing, blowing your nose
- Touching eyes, nose, face, hair, mouth, cuts
- Smoking, coffee/lunch breaks and cleaning duties
- Handling money or waste

Protective clothing should be worn to protect food from bacteria that may have been picked up outside the work place. Personal clothing should be stored in a designated area away from food products as bacteria carried on clothes could contaminate the food.

**Protective clothing should be:**

- Bright coloured (easily identifiable if anything drops into food product)
- Comfortable
- Washable and changed frequently (personal hygiene reasons)
- Without external pockets (objects then cannot become dislodged and fall into products)
- Fastened by means of studs, Velcro or zips (buttons may become loose and fall into products)
- It should also include a suitable hat and hairnet
- And non-slip safety footwear

**Food workers must not wear:**

- Nail varnish – it can chip into food
- Perfume/aftershave – it can taint a food taste
- Watches and jewellery – can harbour dirt and bacteria, can also fall into food
- Long nails can harbour bacteria, so keep nails short.

**Poor personal hygiene practices**

Smoking, coughing/sneezing over food, nail biting, nose picking, finger tasting.

- **If a food worker has an open sore or cut, they must cover this with a brightly coloured plaster - the bright colour is easier to see if it falls into food.**
- **Food workers must report all instances of diarrhoea, vomiting and skin infections to a supervisor before returning to work and must not work while suffering from these symptoms. The employee must receive medical clearance before returning to work.**

**Personal injuries –**

- The skin is a natural source of infection
- Cuts which become septic contain high numbers of bacteria
- Even cuts and abrasions can be infected
- Poor food handling and hand washing habits can transfer bacteria to food and surfaces, i.e. *cross-contamination*.

# Section 6 – Design and layout of food premises and pest control

## Objectives

- Identify the requirements relating to the design and layout of food premises
- Identify the role of the Health Service Executive (HSE) in monitoring food
- List the main types of food pest and recognise the signs of an infestation
- Identify preventative and control measures for food pests

### **The design, layout and construction of food premises should:**

- Permit adequate cleaning
- Permit good food hygiene practices, including protection against cross-contamination

### **The role of the Health Service Executive**

All food outlets must be registered/have prior approval with the Health Service Executive. The Health Service Executive is responsible for:

- Inspection of premises
- Operational hygiene
- Structural hygiene
- Personal hygiene
- Closing a food business
- Enforcement of legislation

### **Enforcement officers have powers to:**

- Enter and inspect food and premises
- Investigate and inspect food and premises
- Investigate outbreaks of food-borne disease and possible offences
- Remove suspect food and have it destroyed if it is considered to be unsafe to eat
- Serve improvement and prohibition notices
- Take food businesses to court for breaking food safety laws

If the business is an imminent risk the enforcement officer can immediately close the business.

### **Structural hygiene**

#### **Equipment and work surfaces should be**

- Mobile where possible
- Smooth, durable, non-absorbent/impervious and easy to clean

- Wooden surfaces are not recommended as they are absorbent and do not permit adequate cleaning

### **Service requirements**

#### **Why is ventilation required?**

- Provides staff comfort
- Prevents bacterial growth
- Reduces condensation and eliminates odours

#### **Why is lighting important?**

- Safety
- Assists reading labels on packages
- Assists cleaning
- Assists the detection of pests

### **Water supply**

- Must be potable, i.e. fit to drink
- The water supply to food rooms, ice machines, dishwashers and glass washers must come directly from the rising mains

### **Drains**

- Drains must be connected either to the public sewer, a septic tank or an effluent system
- Grease traps should be provided to prevent blockage with grease or food waste
- There should be no open access to drainage systems in food rooms

### **Refuse**

- Bins should be fitted with lids, suitably located and emptied daily
- They should be operated by foot pedal so as not to contaminate hands and lined with a removal plastic liner.

### **Prevent cross contamination within the kitchen by:**

#### **Zoning**

- Segregation of work areas for raw and cooked food
- Use of separate utensils, work surfaces and equipment for-ready-to eat and raw foods.

### **Legal requirements**

It is a legal requirement in food premises to provide hand washing facilities.

Employers must ensure that anyone who deals with food as part of their job and anyone whose work could affect food, e.g. cleaners, engineers, delivery drivers, etc, are supervised and given the required instruction and/or training appropriate to the work they carry out. They should

receive this training prior to entering a food area.

### **First Aid equipment**

- It is recommended in the 'Guide to Good Food Safety Practices' that businesses have adequate & appropriate First Aid equipment, facilities & personnel on site to enable First Aid to be given
- In a small business a person should be appointed to take charge of the First Aid kit and call an ambulance if required
- In large businesses a qualified first aider may be required

### **The first aid kit usually contains the following items:**

- Individually wrapped sterile, adhesive dressings/plasters – brightly coloured or with a metal strip – so they can be detected if they fall into food
- Sterile eye pads
- Individually wrapped triangular bandages
- Individually wrapped sterile, waterproof dressings
- Disposable gloves

### **Pest control**

#### **Define a pest**

A food pest is any creature that lives on, or in, human food causing damage or contamination or both.

#### **The importance of pest control**

- Pests are a hazard to public health – they carry disease
- Pests damage and waste food
- Pests damage property
- Pests contaminate water storage tanks

#### **Signs of rodent activity – e.g. mice**

Droppings, nibbled food packages, gnaw marks and holes, greasy smears on pipes and walls, paw marks in dust, shredded scraps of paper used for nesting.

#### **Signs of insect activity – e.g. cockroach**

Moulted skins - cockroaches  
Larvae/eggs - bluebottles  
Webbings/Frass - mites & moths  
Droppings - rats & mice

#### **How can pests be controlled?**

- **The best method of preventing pest access to food premises is a mesh screen.**
- Eliminate their food and shelter
- Rodent proof the building
- Set traps or lay bait
- Insect proof the building
- Insecticides and insectoculers
- Ultra violet insect killers

# Section 7 – Cleaning

## Objectives

- **Storage and maintenance of cleaning equipment**
- **Cleaning products**
- **Cleaning programme**
- **Cloths**
- **Four stages of cleaning**
- **Cleaning equipment**

## Storage and maintenance of cleaning equipment

- Store in a safe place away from food
- Use sluice sinks served with hot and cold water. **Never wash food and utensils in a hand washing sink as cross-contamination could occur.**
- Ensure ventilation in cleaning stores
- Never leave mops/cloths to soak overnight
- Cleaning chemicals must be clearly marked

## Cleaning products

- **Detergents** – remove grease and dirt but do not kill bacteria, e.g. soap, wash-up liquid, washing powder, use with hot water for best results.
- **Disinfectants (sometimes referred to as sanitisers)** – reduce the number of bacteria to a safe level, achieved by the use of very hot water, at 82°C or hotter, steam or chemical disinfectants.
- **Sanitisers** – combined detergent and disinfectant.
- **Sterilants** – kill all bacteria.

**Always use cleaning products according to the manufacturer's instructions**

## It is important to disinfect/sanitise

- Food contact surfaces e.g. chopping boards, preparation tables etc.
- Hand contact surfaces e.g. handles – doors, refrigerators, freezers.
- Contamination and bacterial multiplication hazards, e.g. cloths & mops.

## Cloths and their uses

Cloths are a common source of contamination – for this reason, single use disposable cloths are recommended.

Make sure any cloths you use are clean and fit for the purpose. Different cloths should be used for different areas.

- Tea towel/chef's cloth for holding hot items
- Dish cloth for washing dishes
- Single use cloths for wiping surfaces, mopping up spills, wiping hands and wiping sides of dishes before serving.

### **The four stages of cleaning**

- Pre-clean: removal of heavy soiling by sweeping, wiping or pre-rinsing
- Main-clean: use of detergents to remove grease & dirt
- Rinse: removal of detergent and dirt
- Disinfection: reduce bacteria to a safe level

### **Guidance on cleaning equipment, e.g. chillers**

- Remove all food
- Keep food under refrigeration while cleaning the chiller
- Clean the chiller from top to bottom
- Ensure the chiller is at the appropriate temperature before you return the food from the refrigerator.

## Section 8 – HACCP

### Objectives

- Explain the term HACCP
- Give two reasons why HACCP is important in a food business
- 7 steps in HACCP
- Review of HACCP
- Food Safety Management Documentation

### **HACCP – Hazard Analysis Critical Control Point.**

Food hygiene legislation requires food businesses to have a food safety management system such as HACCP or a system based on HACCP principles.

The main principle of HACCP is to try to identify a potential problem or hazard that may occur at any stage before it happens and so guarantee the quality of the food.

### **HACCP is a system used by food businesses to:**

- Identify any step in the activities of their food business which is critical to ensuring food safety
- Implement safety measures to reduce risks to health.

### **The seven basic steps in HACCP**

1. Identify the hazards associated with the food business, e.g. a hazard could be a chemical contaminant
2. Identify points where hazards may occur – the hazard may occur if the food is left out when cleaning - and how this can be controlled
3. Establish limits to allow these hazards to be controlled at each critical point
4. Establish monitoring procedures to measure the limits set for each point identified at step 2.
5. Determine what corrective action would be required if the control of a hazard was unsuccessful
6. Establish recording procedures commensurate with the nature and extent of the food business
7. Establish verification and review procedures

### **Review of systems**

A review of systems may be necessary if:

- The control measures are ineffective
- The product is unsatisfactory
- The type of product or ingredient changes e.g. frozen chickens are used instead of fresh, different seasoning etc.

- New equipment is introduced, e.g. a new fridge, oven, etc.
- Complaints
- Poor laboratory results from food samples, etc.

**State the difference between a hazard and a risk.**

A hazard is anything that could cause harm to consumers and a risk is the likelihood that a hazard will cause harm.

**The use of documented food safety management systems**

- It is a legal requirement to keep records as part of the HACCP - based food safety management system
- Record keeping helps to ensure that the business complies with the law and provides evidence of how the food is produced and handled
- Records need to show that the steps in the production and sale of food that are critical to food safety are being controlled.

**Types of records that might be kept**

- Refrigerated storage, i.e. the date the food went into the fridge, daily recording of the temperature in the fridge, maintenance records
- Cooking and holding temperatures
- Cleaning records
- Staff training records – provides evidence that staff have been trained to the required standard
- Pest control
- Goods received delivery temperatures.