BASIC FOOD HYGIENE AWARENESS FOR HEALTHCARE WORKERS

March 2012

Version 4.0

AIMS AND INTENDED LEARNING OUTCOMES

- To give an awareness of food hygiene and safety
- To ensure that they understand their role and responsibilities regarding food hygiene safety in care environments.

The course will cover the following topics

- Legal Requirements (employer and employee responsibility)
- Statistics (incidences of food poisoning)
- The Care Environment
- Facilities and Equipment
- Personal Hygiene and Health
- Food Handling Practices
- Temperature Control and Storage
- Cleaning
- Pest Control
- Kitchen Access

LEGAL REQUIREMENTS

Any business involved in handling and serving food is subject to strict Hygiene and Food Safety Laws and must be registered.

Legislation

All employers and employees have responsibilities under the relevant legislation, which are:

- The necessity of maintaining standards at all times; poor standards affect quality, but more importantly, can result in prosecution and even closure.
- Environmental Health Officers (EHOs), can visit premises at any time unannounced, to check legal requirements are being met. The inspectors will look at:
    - your premises
    - the kinds of food you make or prepare
    - how you work
    - your food safety management system

Prosecution can happen if:

- the premises are dirty
- food served is contaminated
- the person or setting causes food poisoning
- The organisation and/or owner can be prosecuted, but so can **individual** food handlers who do not follow procedures.
- Prosecution can result in:
    - Fines up to £20,000 for each offence
    - Prison sentence of up to 2 years
    - Compensation for customers who have been affected by the food.

It is essential that all food handlers have formal training on food safety, and this should be refreshed on a regular basis, as regulations and guidelines change.

HEALTH AND SAFETY RESPONSIBILITIES

Health and Safety at Work Act, 1974

Employers, under this legislation, have duties to employees and non-employees (e.g. Service users and visitors etc.), which cover:

- Making the workplace safe, without risks to health (this includes keeping dust and fumes under control; ensuring substances are stored and used safely; giving employees adequate information, instruction, training and supervision necessary for their health and safety), and ensuring an employee's welfare, *'so far as reasonably practicable'*
- The drawing up of a health and safety policy and ensuring everyone is aware of it, and what it means.
- Providing free and protective clothing specifically required by health and safety law
- Reporting injuries, diseases and dangerous occurrences to the appropriate authorities.
- Keeping the workplace clean, providing clean washing and toilet facilities, and accommodation for clothing.
- Taking correct precautions to prevent employees being exposed to substance which may damage their health.
- Ensuring that all substances, including micro-organisms are safe and without risks to health, *as far as is reasonable practicable*.

Employees also have obligations:

- To take reasonable care of the health and safety of themselves and of other persons who may be affected by their acts or omissions at work.
- To cooperate with employers and/or others carrying out legal requirements, as necessary, so that the requirement can be performed or complied with.

FOOD SAFETY RESPONSIBILITIES

The Food Hygiene Regulations 2005 came into force on January 2006 and replace the Food Safety Regulations (General Food Hygiene) and Temperature Control) 1995 regulations.

Almost all of the requirements of the new regulations are the same as the ones they replace. The main new requirement is that you must be able to show what you do to make or sell food that is safe to eat and have written this down.

Employers, and anyone in charge of food premises, under this legislation have duties to ensure:

- The premises are registered with the local enforcement authority.
- The premises are designed and equipped to operate in ways which prevent contamination, and which avoid the development of illness.

- The staff are trained and supervised to work hygienically.
- That there are procedures in place to manage food hazards; they are assessed and action is taken to prevent, stop, or reduce the risks to food safety (HACCP (hazard analysis critical control point) and these procedures are reviewed and updated as necessary. These procedures must be written down.

Food handlers also have obligations:

- To keep themselves and the workplace clean.
- To wear suitable, clean, washable protective clothing.
- To do everything possible to protect food from contamination.
- To correctly follow temperature controls for storage, preparation, and food display.
- To tell their employer if they have food poisoning symptoms, or symptoms of other illnesses.
- **NOT** to work with food if they have food poisoning symptoms, or symptoms of other illnesses until their employer or doctor says it is safe to do so.

DUE DILIGENCE

DUE DILIGENCE MUST BE SHOWN BY ALL FOOD HANDLERS

The Food Safety Act, Section 21 1990 state that Due Diligence:

'*is a defence for the person charged to prove that they took all reasonable precautions and exercised all due diligence to avoid commission of the offence by themselves or by a person under their control.'*

In other words, there must be evidence to prove that food handlers:

- Followed legal requirements and organisational policies and procedures.
- Have adequate training and knowledge of food safety
- Have protected individuals from harmful infections and unsafe practices wherever possible.
- Have appropriate awareness to be able to spot symptoms of infections.
- Have appropriate awareness to be able to spot hazards.
- Have reported any illness, infection and hazards to the relevant personnel.
- Have records relating to food handling which are complete, accurate and legible.

STATISTICS

It is important that care workers/food handlers are aware of the members of the population that are most vulnerable to the risk of food poisoning.

These are:

- Under 5s
- Over 60s
- People already ill

The main reason that these people are most at risk because their immune system may be affected in someway.

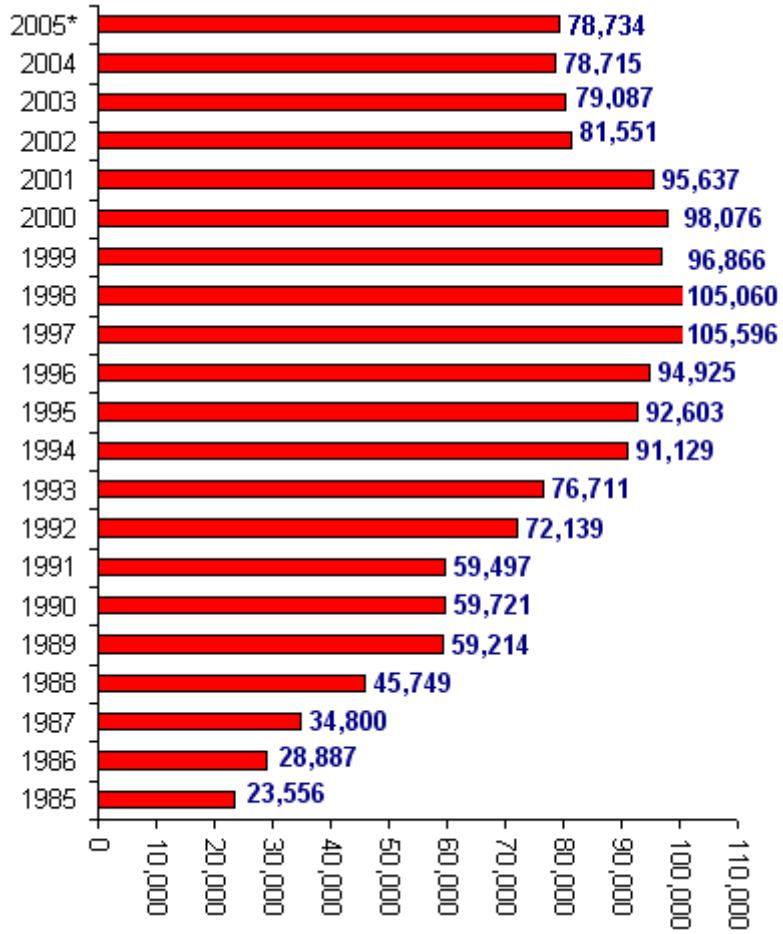
This could be because:

- It is not yet developed sufficiently to fight of germs (under 5s)
- It has begun to deteriorate (over 60s)
- It has been impaired by other illnesses (those already ill)

Anyone working with food must understand the importance of ensuring high standards of food handling with these categories. The elderly are more at risk when they are together in large groups e.g. care homes, hospital, day centre.

FOOD POISONING STATISTICS

Number of notified cases of food poisoning (UK)
Source: Health Protection Agency Centre for Infections/ Communicable Disease Surveillance Centre.



However, many environmental health offices (EHO's) believe these are only about a quarter of the real numbers of food poisoning infections, as many suspected cases do not get reported or investigated.

COMMON FOOD POISONING INCIDENCES*

(*The Trainers Exchange, CIEHO 1998 & the Health Protection Agency)

Some types are more common than others; not only do they cause infection, but they can cause fatalities.

Campylobacter 1996 – 43,240 confirmed cases; results in about 2 deaths per year.

Campylobacter is the commonest reported bacterial cause of infectious intestinal disease in England and Wales. Two species account for the majority of infections: *C. jejuni* and *C. coli*. Illness is characterised by severe diarrhoea and abdominal pain. Undercooked meat (especially poultry) is often associated with illness, as is unpasteurised milk and untreated water. The majority of infections, however, remain unexplained by recognised risk factors for disease.

Salmonella 1997 – 32,169 provisionally confirmed cases; results in about 2 deaths per year.

The majority of cases are sporadic but outbreaks occur in the general population and in institutions. Transmission occurs by ingestion of contaminated food, mainly of animal origin, or faecal contamination from an infected person or animal. Illness is characterised by watery and sometimes bloody diarrhoea, abdominal pain, headache, nausea, vomiting, and fever. Complications include septicaemia or focal infection *e.g.* septic arthritis.

E.Coli 0157 1997 – 987 confirmed cases and on the increase. In Lanarkshire there was on outbreak in 1996, killing 20 people and hospitalising 100.

There are various strains of *E. coli* bacteria. Some strains are usually harmless and live in the gut. Some strains are a cause of common infections such as urine infections and gut infections (gastroenteritis).

A strain called VTEC O157 is an uncommon cause of infection, but it can be serious. It can cause a severe gut infection with bloody diarrhoea. Also, the toxin (poison) released by VTEC O157 can cause other serious diseases. Most people fully recover from a VTEC O157 infection, but it is sometimes fatal.

You can become infected by eating food that is contaminated with VTEC 0157. VTEC 0157 is an uncommon bacteria to contaminate food, but when it does, the consequences can be serious. A number of outbreaks of disease caused by VTEC 0157 have been reported in recent years. Outbreaks have been reported where the contaminated food has been: mince, milk, yoghurt, cooked meats, meat pies, cheese, dry cured salami, raw vegetables, unpasteurised apple juice, and water.

It can take anywhere between 1 an 14 days to develop symptoms once you are infected, but most commonly it takes 3-4 days.

If you have been infected with VTEC 0157, you will pass it out with your faeces, sometimes for several weeks even after symptoms have gone. Therefore, some people pass on the bacteria to others if their hygiene is poor. For example, by not washing hands after going to the toilet and then preparing food for others.

Healthy cattle and sheep can sometimes be carriers of VTEC 0157. There have been some outbreaks linked to handling live cattle. Swimming in contaminated water has also resulted in small outbreaks.

Incidences of food poisoning need to be communicated to the relevant agency:

- If the organisation is registered with the local health authority this will be the local health and safety executive.
- If the organisation is registered with social services this will be the local environmental health office.

CARE ENVIRONMENT

The Care Environment should be kept clear of infection and contamination wherever possible.

When many people live together there is the risk of infection being spread through direct and indirect contact – and cross contamination when harmful bacteria are spread onto food from other food, surfaces, hands or equipment. These harmful bacteria often come from raw meat/poultry and eggs.

Other sources of bacteria can include:

- Staff
- Pests
- Equipment
- Cloths

Food should also be protected from physical contamination such as broken glass, pieces of packaging, dust etc. and also chemical contamination where chemicals from cleaning products or pest control can get into food.

Direct Contact

This could be through inhaling infected air droplets, e.g. coughing or sneezing near another person, this could be through direct physical contact.

Indirect Contact

This occurs when infected objects come into contact with the hands, nose, mouth or skin. Examples are clothing, food, cutlery, crockery etc, which have been contaminated with germs.

It is essential that any protective clothing worn for food handling is NEVER worn when visiting the toilet or when going outside.

It is essential that both care workers and service users ensure that hands are washed correctly before handling food.

NO soiled linen should be taken through kitchen and food preparation areas.

Some foods are considered high risk foods. These are the foods that food poisoning bacteria prefer to grow on. These are generally perishable foods with a short shelf life.

High risk foods are:

- Cooked meat and cooked poultry products
- Milk, cream and ice cream
- Sauces and gravies
- Cooked dairy products
- Fish and shellfish
- Rice
- Pulses if not tinned and cooked already
- Any foods containing the above.

Managing high risk foods:

- Control temperature
- Ensure the heating process is thorough
- Avoid handling high risk foods
- Keep separate from raw foods
- Keep covered or wrapped when storing

FACILITIES AND EQUIPMENT

All facilities and equipment should be designed to minimise risk and for ease of cleaning.

Separate areas for storage and preparation of raw and cooked food are ESSENTIAL, as are separate utensils.

The main areas of poor food hygiene practice highlighted in the Lanarkshire investigation 1996 found that staff were using the same knife to cut raw meat and cooked meat without cleaning and disinfecting.

Many organisations colour-code their equipment and utensils making it clear which is to be used for raw meat, cooked meat, dairy, vegetable etc.

It is important that all equipment can be moved to ensure that areas can be adequately cleaned and disinfected. Whenever a piece of equipment is static, dust and dirt will accumulate and can pose an infection risk.

Food handlers and care worker have a responsibility to ensure any damaged equipment or facilities are reported to their supervisor and detailed in the relevant record book. This demonstrates ‘Due Diligence’

All organisations have a legal duty to provide hand washing basins designed for only that purpose. There should be hot water, bactericidal soap, a nail brush (either disposable or disinfected daily) and disposable paper towels.

Refuse

All indoor refuse bins should be foot operated, to minimise contamination by hands. All outdoor bins should have secure fitting lids. Wherever refuse are deposed the area should be cleaned and disinfected regularly.

PERSONAL HYGIENE AND HEALTH

High standards of personal hygiene are essential. The food handler is the key to good hygiene.

It is the responsibility of all care workers to maintain their own personal hygiene and health.

Points to remember:

- Many care workers will be involved in handling and/or serving food and/or food equipment, and therefore have a legal and moral responsibility for maintaining high standards.
- All care workers MUST follow organisational policies and procedures for personal hygiene and maintain high standards at all times.
- When working with others, care workers should work to minimise the risk of others poor personal hygiene.

WHEN TO WASH HANDS

It is essential that regulations relating to hand washing are followed at all times.

1. When arriving on duty
2. After any contact with a service user
3. After using the toilet
4. After a break
5. After blowing nose, coughing, sneezing, touching face or hair
6. Before and after handling both raw and cooked food
7. After handling rubbish or personal waste
8. After picking something of the floor
9. After cleaning and disinfecting
10. After smoking

CORRECT HAND WASHING METHOD

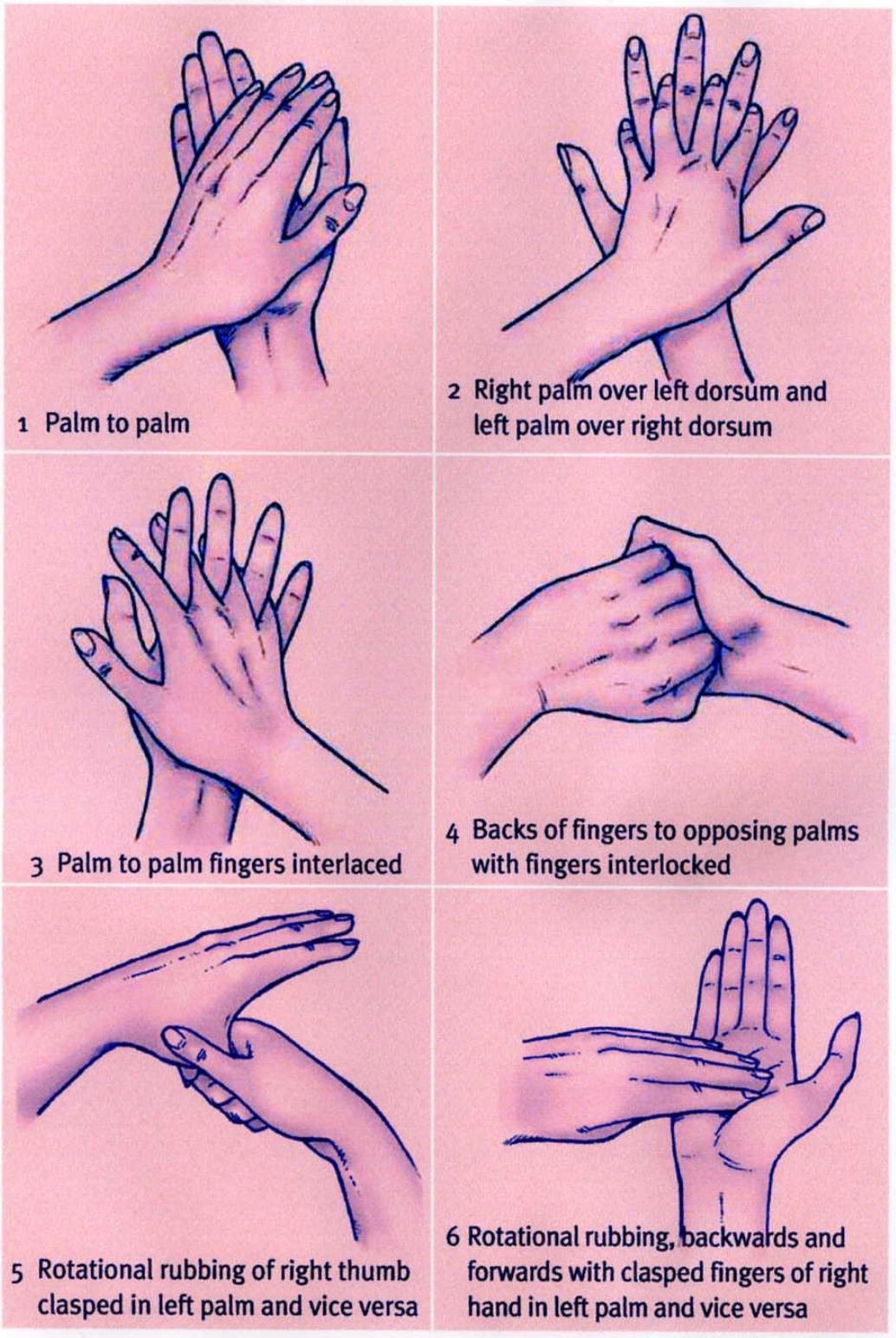
It cannot be stressed too highly that affective hand washing is one of the main contributors to infection control.

- Wet hands with hot running water
- Dispense one shot of soap into cupped hands
- Hand wash vigorously and thoroughly for 20-30 seconds without adding more water. The hand washing method is:
  1. Rub palm to palm
  2. Rub right palm over the back of left hand, and then left palm over back of right hand
  3. Rub palm to palm with fingers interlaced
  4. Rub backs of fingers to opposite palms, with fingers interlocked
  5. Rotate the right thumb whilst held by left palm and vice verse
  6. Rotate and rub backwards and forwards with fingers of right hand in left palm, and vice verse

- For each hand washing step there should be 5 strokes forwards and 5 strokes backward
- Scrub nails with nail brush
- Rinse hands thoroughly under hot water
- Dry hands thoroughly with disposable towel

Copy this diagram and display it in your workplace

Diagram 1 Hand washing technique



Royal College of Nursing

SKIN, HAIR, JEWELLERY AND SMOKING RULES

Skin

Skin carries a lot of bacteria however clean it is. Bacteria causes spots and body odour which is why regular washing is important to remove the build up.

Scratching the skin transfers bacteria to the hands, which then can be transferred to food.

Cuts/Grazes

Cuts and grazes should always be covered with a waterproof dressing before working with food. Dressing should be brightly coloured to detect them if they fall off.

All cuts, boils and grazes carry bacteria, many contain Staphylococcus Aureas one of the main types of food poisoning.

Hair

About 100 hairs are lost a day and many people have dandruff. These can fall into food and cause contamination. Hair should be clean, tied back and preferably covered with a hat or hairnet.

Hair should never be combed in food areas and hands must be washed after.

Jewellery

Jewellery can contaminate food either by transferring germs or falling into food. All jewellery should be removed; plain wedding bands and sleeper earrings are allowed.

Smoking

It is illegal to smoke in a kitchen or any food room. Smoking can encourage coughing. You must wash your hands after smoking.

CLOTHING AND ILLNESS

Clothing

All care workers should wear light coloured protective clothing when working with food. Such clothing should NEVER be worn anywhere else or when carrying out other tasks.

Protective clothing is used to protect food from physical contamination from dirt, dust and bacteria which is carried on general clothing. These may include:

- Hats/hair nets
- Disposable plastic gloves/aprons
- Overalls which cover all outside clothing
- Low heeled, non slip shoes

Protective clothing for food handling SHOULD NOT BE WORN when visiting the toilet or going outside.

Illness

Report illness before starting work

If a care worker has diarrhoea, sickness/nausea, a cold, sore throat, boils/spots, septic wound, been in contact with a food poisoning sufferer or has a nose, ear or throat infection **they must report it to their supervisor before starting work.**

It is a legal requirement to do this under the Health and Safety at Work Act 1974, and the Food Hygiene Law states:

'Food handlers must report to their supervisor is they are, or suspect they are, suffering from food poisoning or a food borne disease' (Food Hygiene (General) Regulations 1970 as amended)

No food handler who has had food poisoning should be allowed to return to food handling tasks until they have medical clearance. Food poisoning bacteria can be carried in a person's gut, without symptoms, these are called 'healthy carriers' but they can still contaminate food and transfer germs to others through poor personal hygiene.

TEMPERATURE CONTROL AND STORAGE

Correct temperature control prevents multiplication of food poisoning bacteria.

Different food poisoning germs are active at different temperatures, but keeping foods below 5c or above 63c ensures that most of them are dormant and will not multiply. Any temperature between 5c and 63c is called 'The Danger Zone' this is where the germs have the ability to multiply.

It is essential to have accurate temperature recordings for all stages of food handling:

- Fridge, freezers and cold stores
- The environment
- When cooking
- When serving

All appliances storing food should be checked twice a day to ensure temperature controls are in place. Once in the morning to check there were no problems overnight and again in the evening.

Records should be kept which detail:

- The appliance
- The date and time
- The temperature
- The name of checker

Any discrepancies should be reported immediately, as a rise or fall in temperature could put food at risk.

How to Minimise Risks of Food Poisoning Germs Multiplying

- Always clean as you go
- Keep food above 63°c or below 5°c
- Do not prepare food too far in advance
- All foods should be cooled within 1.5 hours and refrigerated
- All food should be covered and kept off the floor
- Do not put raw and cooked foods together
- Defrost frozen foods thoroughly
- Only reheat foods ONCE to correct temperature
- Always wash and disinfect equipment, environment and surfaces regularly
- Follow the 'first in/first out' principles of stock rotation
- ALWAYS follow manufactures instructions
- NEVER put open tins in the fridge °

Correct Temperature Controls

	TEMPERATURE RANGE
Fridge	**+1°c to +4°c**
Freezers	**-18°c or below**
Cooking food	**+70°c at the core** (including reheating foods)
Serving hot food	**+63°c at the core**

Bacterial Growth Chart

Time	***Growth***
9.00	1
9.20	2
9.40	4
10.00	8
11.00	64
12.00	512
13.00	4,096
14.00	32,768
15.00	216,144
16.00	2,097,152
17.00	16,777,216

The timetable above demonstrates how quickly bacteria can multiply given the right conditions. In 8 hours one bacteria has multiplied into nearly **17 million!!!**

CLEANING

Always follow the principle of 'Clean as you go'

Cleaning routines are essential to ensure the risks of contamination and infection are kept to a minimum.

When should cleaning take place?
It should take place as often as needed, for example:

- All surfaces before and after preparing food
- Hand contact surfaces
- Floors on a regular basis
- After all spills/splashes

Single-use cleaning cloths should be used wherever possible and thrown away after each task. Re-usable cloths that are used for raw meat/poultry, eggs or raw vegetables and any surfaces that have touched these foods, should be washed and disinfected thoroughly after using them.

No dirty crockery, cutlery or utensils should be left out; it does not only encourage germs to breed but it is also unsightly and off putting.

All soiled wastes should be appropriately disposed of and bins emptied at least once a day. Hands must be washed after doing this.

When cleaning equipment and appliances, attention should be paid to any seals, as they can accumulate deposits and a site for germs to multiply. Also you should be able to easily move all equipment and appliances to enable you to clean behind an under.

It is useful to colour coordinate any equipment which will be used for cleaning purposes. This ensures that they will not be used in inappropriate environments. E.g. cloths and brushes for the toilet should NOT be used in food areas.

Food safety law requires that all organisations involved in food preparation and food handling tasks have a 'cleaning schedule'.

This should detail:

- Who cleans
- What should be cleaned and when
- Chemicals and equipment to be used

All cleaning should be checked to ensure it is effective, safe and correct.

PEST CONTROL

All animals and birds carry germs which can cause infection, their fur and feathers can also contaminate food.

This applies to domestic pets as well as wild animals, insects. It is important to be aware of the infections animals and insects can cause.

All insects, due to their feeding and defecating habits carry infectious germs which can be spread to any surface they touch. All animals also carry infectious germs, and may also carry many parasites which can be picked up when stroked, when they lick a person and from their urine or faeces.

Pests include:

- Flies
- Rodents
- Pets
- Birds
- Foxes
- Feral animals
- Crawling insects

Many pests find dirty premises, overfilled bins and waste areas ideal places to breed. That is why all areas should be kept clean, all floors swept, and no food stored on the floor. No animal should be allowed into the kitchen or food preparation areas. They should not be feed in these areas nor should their food be kept in the fridge or need food for human consumption.

Hairs, feathers, dandruff, mites and fleas from animals and birds can contaminate food. Food handlers have a responsibility to recognise when pests are present.

These could include the following:

- Dead bodies
- Droppings
- Unusual smells
- Paw/claw prints
- Skin bites
- Gnawed packaging, pipes
- Eggs, larvae, pupae
- Feathers and nests

There is a legal responsibility under legislation outlined earlier to ensure that premises and food are free from contamination and germs.

It is a food handler's responsibility to report any suspected sightings, to follow pest control policies and not to interfere with pest prevention methods or equipment which may be in place.

Essential Pest Controls Include:

- Eliminating food and shelter
- Keeping all areas clean and disinfected
- Covering milk deliveries
- Ensuring all wastes are disposed of in tightly-fitting bins and all areas are well lit
- Never have food debris around
- Ensuring that all entrances are protected
- Installing sticky boards, ultra-violet insect killers, fly-papers
- Ensuring rodent proof containers, blocked holes, kick plates on doors, water tanks covered, repairing of defective drains.

KITCHEN ACCESS

Food preparation areas should be for food handlers only

Wherever possible all food handling and preparation areas should be restricted to food handlers. However there may be times when others need access:

- Management to check polices and procedures are being followed
- Inspectors to check legal requirements are being met
- Pest control officers when dealing with problems

Whenever this happens, it is essential that they comply with personal hygiene regulations to minimise the risk of cross-infection and cross-contamination.

It is preferable that residents service users are not allowed unrestricted access to food areas and the may contaminate the environment.

However where the organisational policy is to allow access the following procedure should always be carried out:

- Hands should be washed effectively before entering
- Appropriate protective clothing should be worn
- Supervision should be evident at all times
- There should be no involvement in meal preparation for other service users