

# Use Hygienic Practices for Food Safety

## Hygiene Work Practices

### The importance of hygiene work practices

Hygiene refers to the cleanliness of an organisation, including individuals within the organisation to prevent disease and protect people's health.

The consequence of poor hygiene work practices are:-

Customer	Worker	Workplace
<ul style="list-style-type: none"> <li>* Food poisoning</li> <li>* Illness</li> <li>* Distress</li> <li>* Allergic reactions</li> <li>* Death in severe cases</li> </ul>	<ul style="list-style-type: none"> <li>* Loss of jobs</li> <li>* Low staff morale</li> <li>* Higher staff absenteeism</li> <li>* Increased staff turnover</li> <li>* Staff warnings may be issued if staff don't follow correct procedures</li> <li>* Staff may be fired</li> </ul>	<ul style="list-style-type: none"> <li>* Business shut down</li> <li>* Litigation</li> <li>* Loss of goodwill</li> <li>* Loss of revenue</li> <li>* Wasted time</li> <li>* Increased wastage</li> <li>* Increased costs</li> <li>* Named and shamed.</li> </ul>

### Hygiene work practices and their purposes

- **Personal Hygiene:** Personal hygiene from all members of staff is the first step in ensuring high standards of hygiene in any hospitality establishment. Clean hair, nails, teeth and clothing are essential when working in food preparation and service. Other measures could include wearing minimal jewellery, minimal make-up, working with hair tied back and/or covered, and ensuring facial hair is neatly trimmed and clean.
- **Food Preparation & Storage:** Preparing and storing food in a clean and sanitary environment is the next step in ensuring hygiene work practices. This includes ensuring workspaces and equipment are clean and sanitized before, during and after working with food, ensuring waste is disposed of correctly, and garbage bins are emptied and sanitized on a regular basis. Food storage principles such as First In, First Out (FIFO) should be applied. Storing food at the correct temperature is always essential as is being aware of the temperature Danger Zone of between 5 degrees and 60 degrees Celsius.
- **'Ready to Eat' Food Items:** These are pre-prepared and ready for immediate consumption by customers. They can be sold, hot, cold, at room temperature or as shelf stable products. These are commonly found in supermarkets and delicatessens. Examples include sandwiches, soups, salads, pasta and pies. These foods are high risk for containing food poisoning bacteria and must be stored and handled correctly.
- **Service of Food & Beverages:** Staff involved in preparing food are not only the ones who need to be practicing high levels of personal hygiene. Service staff regularly

come into contact with food and should be aware of appropriate hygienic work practices. All food service staff must ensure they wash their hands regularly, minimise their contact with crockery, cutlery and glassware when serving food and adhere to strict personal hygiene standards. Tables, waiters' stations and service areas should be cleaned and sanitised regularly.

- Linen: Many restaurants now use very little linen in their dining rooms, referring to use the single use disposable items. However, hotels use linen such as towels, uniforms, tablecloths, bed linen, robes, and so on, and all these items have the potential to be contaminated with a range of bacteria and other waste that can cause the spread of illnesses. Linen should be handled carefully, particularly when used or soiled with blood and bodily fluids. These items should be placed in a plastic bags and sent for laundering.
- Cleaning and Sanitising: These are the concepts and tasks are an essential part of any hygiene workspace. Cleaning is the removal of dirt and debris fro utensils, equipment and surfaces. Sanitising is the use of a chemical substance to kill bacteria.
- Waste Disposal: The way in which waste is disposed of will vary between establishments and departments. All waste should be removed from work areas regularly, particularly in areas where food is being prepared. When emptying bins, staff should wear gloves, dispose of the waste in large dumpsters or outside garbage bins, wash and sanitise the receptacle and re-line the bin. Establishments should propose environmentally friendly waste disposal practices such as recycling and composting.
- Pest Control: Pests and vermin are a regular part of our daily lives. It is very hard to prevent pests from entering a food preparation area. Steps can be taken to minimise or remove the threat. Regular cleaning and removal of food scraps and debris from work surfaces is essential, as is cleaning of food storage areas. Shelving is easy to access for cleaning and be impervious to pest infestations. Sweeping floors and vacuuming dining rooms will remove food scraps from floors and help in deterring pests.

### Hand washing

Hand washing is the most basic principle of hygiene work practices. Hands should be washed thoroughly throughout the day. Hands should be washed after working with raw foods, touching unwashed foods, eating and drinking, going to the toilet, coughing or sneezing, touching the hair, eyes, ears, mouth or nose, and after smoking, touching the floor, emptying and cleaning bins and handling chemicals.

There are five basic steps to correct hand washing, as outlined below.

1. Remove all jewellery.
2. Rinse hands under warm running water.
3. Lather your hands with liquid soap, rubbing the palms together and washing in-between fingers around the thumbs and up the wrists for 20 seconds.
4. Rinse hands under warm running water.
5. Dry hands with paper towel and apply a sanitising gel.

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## Hazards Impacting Food Safety

### Hazard Analysis Critical Control Points (HACCP)

Hazard Analysis Critical Control Points (HACCP) is a process that ensures the risk of contamination is prevented at all critical points in the production of food. HACCP cannot replace hygienic and safe food-handling procedures; instead, it is a process by which a team can monitor potential problems and take corrective action before food can pose a health risk to the customer.

There are seven principles of HACCP, as outlined below.

1. Conduct a hazard analysis.
2. Identify critical control points.
3. Establish critical limits.
4. Establish monitoring procedures.
5. Establish corrective action.
6. Establish verification procedures.
7. Establish record keeping and documentation process.

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## Compliance

### Difference between an act, regulation, code of practice and industry/workplace standard

- \* Act: Is a bill passed through parliament to become a law.
- \* Regulation: Is a government law detailing the precise behaviour or practices needed to comply with the Act.
- \* Code of practice: Include written details on how to meet minimum standards within an industry or enterprise.
- \* Industry/workplace standards: Quality assurance principles followed by workers and owners in the hospitality industry to ensure hygiene standards are met and rules are followed.

### The intent of national, state and territory laws, standards and codes

National, state and territory laws, standards and codes are in place to create uniformity, safety and stability in the way food is stored, handled, prepared, cooked, served and sold across the country. Food-related legislation is designed to protect the customers, employers and employees. Though each state and territory has their own interpretation of the laws, they are based on an inter-government Food Regulation Agreement, which is overseen by the Australia New Zealand Food Standards (ANZFS) Code.

#### *Food Act 2003 (NSW) (as amended)*

This is the primary law governing food for human consumption in NSW. The main aims of this Act are to:-

- \* Ensure food for sale is both safe and suitable for human consumption.
- \* Provide misleading conduct in connection with the sale of food.
- \* Provide for the application in NSW of the Food Standards Code.

#### *Food Regulation 2010 (NSW) (as amended)*

This regulation supports the regulatory work of the NSW Food Authority and its aim to reduce food-borne illnesses. This regulation provides more detailed information regarding the guidelines hospitality establishments must follow to ensure high levels of food safety. The regulation sets the minimum standards the food industry must adhere to for food safety. It specifically focuses on susceptible foods and groups of people who are at high risk of food-borne illnesses.

#### *Australia New Zealand Food Standards (ANZFS) Code ('the Code')*

The Code ensures that food produced in Australia and New Zealand is safe and suitable for consumers to eat. It includes standards for food additives, food safety and labelling, and foods that need pre-approval, such as genetically-modified foods. The enforcement of the Code is the responsibility of state and territory departments and other food enforcement agencies.

### Ramifications of failure to observe

The ramifications of a failure to comply with food safety legislation can include:-

- \* Warning letters.
- \* Improvement notices.
- \* Prohibition orders.
- \* Seizure of food, vehicles and equipment.
- \* Penalty notices.

- \* Prosecution in local court.
- \* Court proceedings in the Supreme Court.
- \* Suspension or cancellation of food handlers license.

### The role of the NSW Food Authority

The NSW Food Authority was established in 2004 with the aim of providing NSW with an integrated food regulation system. It is responsible for food safety across all areas of the food industry, from primary producers to point of sale, by applying the Food Standards Code and enforcing the *Food Act 2003 (NSW) (as amended)*. The NSW Food Authority works to ensure all food in NSW is safe and correctly labelled and advertised so that consumers are able to make informed decisions about the food they are eating.

### Responsibilities of the food safety supervisor (FSS) and the food handler

The food laws in NSW require hospitality establishments such as restaurants, cafes, caterers, hotels and clubs to have at least one trained food safety supervisor (FSS). A FSS is trained to recognise and prevent risks to food safety. The owner of a food business must appoint a FSS, who is then responsible for supervising all food handling to ensure it is being done correctly. A FSS is required to undergo suitable training to obtain a Food Safety Supervisors Certificate and must receive refresher training every five years.

The role of the FSS is to prevent customers from being ill due to food-borne illnesses. The FSS can also train and supervise other workers in a business on safe food handling practices.

A food handler is anyone who works in a food business or handles food. A food handler is also likely to handle equipment and utensils that come into contact with food and are responsible for the maintenance of surfaces where food is collected, transported, prepared, displayed, stored and served.

Under the Food Standards Code, food handlers are required to take all reasonable measures to ensure the safety and suitability of the food they prepare and serve. The responsibilities of the food handler include:-

- \* Regular hand washing when they are likely to be contaminated or before and after handling raw or cooked food.
- \* Maintaining their health and not working when ill.
- \* Taking all reasonable measures to ensure they avoid unnecessary contact with 'ready to eat' food.
- \* Maintaining high levels of personal hygiene.

## Workplace policies, procedures and regulatory requirements and daily work activities

Each job role in the hospitality industry has specific hygiene-related responsibilities. For example, food handlers and food and beverage attendants must maintain high levels of personal hygiene and follow a regular hand-washing regime. They should also ensure that all uniforms are clean, neat and well presented. These employees shouldn't work when they are sick.

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## Food Contamination and Food Borne-Illnesses

### Signs of damaged, deteriorated, spoiled or out-of-date food

The contamination of food can occur in many ways. There are obvious signs such as damaged packaging, deteriorated fresh food items, spoiled foods, or food that has reached or passed its best-before or expiry date. Bacterial or chemical contamination of foods is not always visible to the naked eye as these types of contamination may not alter the look of a food item.

### Meaning of contaminant, contamination, cross-contamination and potentially hazardous foods

- \* Contaminant: A physical, microbiological or chemical substance that renders food unsuitable for consumption.
- \* Contamination: The exposure of a food to a physical, microbiological or chemical substance.
- \* Cross-contamination: The transference of bacteria from person to food, environment to food or food to food, which may result in food-borne illnesses.
- \* Potentially hazardous foods: Any food item that is highly susceptible to the growth of microorganisms that may lead to food-borne illnesses.

### Causes of contamination

- \* Physical: These include dangerous physical objects found in food, such as plastic, glass, elastic bands, wood chips or Band-Aids.
- \* Chemical: These include cleaning chemicals or foods that naturally occurring toxins like green potatoes.
- \* Microbiological: These include bacteria, mould, virus, yeast and fungi.

Conditions conducive to food spoilage and contamination

- \* Food: Some foods are high risk such as meat (particularly undercooked mince), smallgoods, poultry, raw egg, seafood, salads, cooked rice and pasta
- \* Moisture: The food must have moisture content for bacteria to multiply. Dried foods are not breeding grounds for bacteria until moisture is added.
- \* Air: Not all bacteria require oxygen to multiply. Bacteria that require oxygen are aerobic and are found on the surface of food. Bacteria that do not require oxygen are anaerobic. These are found in stews, gravies etc.
- \* Time: If all the growth requirements are there bacteria will multiply every 20 minutes and they will split into 2.
- \* Temperature: Bacteria Grow in the temperature zone of 5-60 degree Celsius which is referred to as the Danger Zone! Lower and higher temperature do not necessarily kill bacteria but may slow it down.
- \* pH Level: A pH scale is used to measure the acidity or alkalinity of food. Bacteria prefer neutral pH. Meat and seafood have a neutral pH. High acid foods such as pickles, fruit, wine and vinaigrettes are normally spoiled by moulds and yeast NOT bacteria.
- \* Temperature Zones:-

	Bacteria STOP = Dormant (no activity between 5 - -18 degrees Celsius), however they do not die.
-18 degrees Celsius	Freezer
1-4 degrees Celsius	Fridge/Coolroom
7-10 degrees Celsius	Fruit/Veg
10-20 degrees Celsius	Dry Store
5-15 degrees Celsius	Bacteria Slow Down (slow growth).
5-60 degrees Celsius	Danger Zone (20-45 degrees Celsius is optimal growth). Bacteria grow at their most rapid rate.
60-130 degrees Celsius	Zone of Destruction. Above 75 degrees Celsius - Bacteria are killed rapidly. Bacteria cannot multiply above 60 degrees Celsius. Bacteria die slowly at 60-74 degrees Celsius.

- \* Danger Zone: The Danger Zone is between 5 degrees and 60 degrees and it experiences rapid growth of bacteria. The temperature for bacteria growth is around the Danger Zone and the temperature for bacterial death is below 5 degrees or above 60 degrees.
- \* The 2/4 Hour Rule: The 2-4 hour rule is the length of time foods spend in the Danger Zone should be minimised in order to keep the food safe. 0-2 hours - Use immediately

or keep it stored below 5 degrees Celsius or above 60 degrees Celsius. 2-4 hours - use immediately. Over 4 hours - Throw it in the bin.

### Food Allergies

A food allergy is an overreaction of a person's immune system, usually to a protein within the food. This reaction causes the body to release histamines and other defensive chemicals, causing inflammation. Common food allergens include shellfish, eggs, fish, peanuts or tree nuts, soy beans and sesame seeds.

A severe food allergy can cause anaphylaxis, which is characterised by a rapid onset of hives, swelling of the tongue, throat and face, and difficulty in breathing. Responses to allergic reactions can include treatment with an antihistamine. However, in cases of anaphylaxis, a person will need an injection of adrenaline via an EpiPen. Having a person in the workplace who is trained in using an EpiPen is advisable. It is important that the EpiPen not be past the use-by-date. An ambulance should be called immediately when a person has an anaphylactic reaction.

Taking simple precautions when preparing foods that are likely to cause an allergic reaction can help to avoid cross-contamination. These precautions include using colour-coded chopping boards, cleaning down surfaces, and ensuring foods that can cause allergies are handled with plastic gloves and prepared separately. Always list the items with possible allergens clearly on the menu so customers with allergies have enough information to make an informed decision about their meal.

### Meaning of food-borne illness

Food-borne illness otherwise known as food poisoning is the result of consuming contaminated food or beverages.

### Causes of food-borne illnesses

- \* Bacterial: Foods can have a high level of living bacteria that die in the body and release a toxin.
- \* Bacterial Toxins: Foods have dead bacteria that has already released a toxin.
- \* Viral: Foods contain a high level of living bacteria.

Food poisoning occurs when a person ingests food contaminated with high levels of harmful bacteria and toxins. The causes of food poisoning include bacteria, bacterial toxins, viral contamination of food, cross-contamination and incorrect storage and handling of food. Ingesting naturally poisonous food can also cause food poisoning.



## Bacterial, bacterial toxins and viral contaminants of food

### Bacterial:-

- \* **Listeria:** Found in soil, vegetables, sewage, water and animals. Foods include unpasteurised dairy products, unwashed raw vegetables, smoked fish and raw meat. Symptoms include fever, muscle aches, vomiting and diarrhoea.
- \* **E. Coli:** Found in the intestines of human and animals. Foods include undercooked meat, unwashed vegetables and unpasteurised dairy products. Symptoms include severe diarrhoea with blood, severe abdominal pain and vomiting.
- \* **Campylobacter:** Found in soil, water and the intestines of poultry. Foods include poultry and unpasteurised dairy products. Symptoms include vomiting, diarrhoea, abdominal pain, cramping and fever.
- \* **Salmonella:** Found in insects and rodents and in the intestines of animals. Foods include raw meat/poultry, oysters growing in contaminated water, non-acidic food, offal and products containing eggs and gravy. Symptoms include vomiting, diarrhoea, nausea, stomach cramps and fever.

### Bacterial Toxins:-

- \* **Clostridium Perfringens:** Found in raw meat/poultry, manure, soil and intestines of animals, birds and humans. Foods include larger cuts of meat, stews, curries, meat sauce and non-acidic foods. Symptoms include diarrhoea, cramps and fever.
- \* **Clostridium Botulinum:** Found in soil, water, vegetables and animals. Foods include poorly processed or contaminated canned food, damaged cans, non-acidic canned food, smoked/salted fish and smallgoods. Symptoms include dry mouth, nausea, vomiting, difficulty swallowing or talking, double vision, weakness and breathing difficulties.
- \* **Bacillus Cereus:** Found in soil, vegetables and unpasteurised milk. Foods include cooked rice, pasta, pudding and dry products. Symptoms include diarrhoea, cramps and nausea.
- \* **Staphylococcus Aureus:** Found in animals, dust and humans. Foods include meat, smallgoods, dairy products, custard, creamy pastries and salads. Symptoms include nausea, vomiting, diarrhoea, severe abdominal cramps, loss of appetite and mild fever.

### Viral:-

- \* **Rotavirus:** Found in vomit or faeces of an infected person. Foods include salads, raw fruit and vegetables and other foods that hasn't been cooked. Symptoms include nausea, vomiting, watery diarrhoea and fever.

- \* Hepatitis A: Found in infected food handlers, sewage contaminated water and food that has been sourced from sewage contaminated water such as oysters. Foods include raw or food that has not been cooked sufficiently. Symptoms include diarrhoea, dark urine, jaundice, fever, headache, nausea, abdominal pain and loss of appetite.

### Hygienic work practices to prevent illness and contamination

Methods of preventing illness and contamination include:-

- \* Ensuring high levels of personal and environmental hygiene.
- \* Having clean uniforms, minimal make-up and no jewellery.
- \* Covering all open cuts and wounds with appropriate dressings and wearing gloves where appropriate.
- \* Avoiding cross-contamination by using equipment such as colour-coded chopping boards.
- \* Regular hand-washing practices.
- \* Storing food outside of the temperature Danger Zone at all stage of the food handling cycle.
- \* Applying correct food handling procedures, including avoiding over-handling foods, keeping hot food hot, and cold food cold, and stacking and rotating storage areas correctly.

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## Reporting

### Purpose and importance of reporting

It is essential that any hygiene risks or potential health issues are reported to the appropriate person. When you identify a potential hygiene risk the best course of action is to eliminate it yourself where possible. The risk you have identified and the steps you have taken should be recorded in the food safety program as required by your workplace.

### What, how, when and whom to report

- \* What should be reported: Hygiene and food safety issues that should be reported include food hazards and their associated risks, poor hygienic work practices, unsafe work practices when working with food, personal health issues and incidences of food contamination.
- \* Types of reports: Reporting can be written or verbal form and can also be formal or informal. Formal reporting would include written procedures in a food safety program

such as HACCP. An example of informal reporting would be letting other people know that you have identified and recited an issue.

- \* Reporting to appropriate persons: It is vital that all breaches or risk to food hygiene be reported to the appropriate person. This can include a team leader, supervisor, manager or health and safety representative.