Learner Guide

Food Safety Supervisor

SITXFSA005 Use hygienic practices for food safety

SITXFSA006 Participate in safe food handling practices

Food Safety Supervisor | Learner Guide

Contents

Food Safety Supervisor | Learner Guide

Introduction

About this Learners Guide

This learning guide covers the unit of competency, SITXFSA005 Use hygienic practices for food safety and SITXFSA006 Participate in safe food handling practices, which are part of the tourism, travel and hospitality package.

This guide has been designed to help you develop the skills and knowledge required to use personal hygiene practices to prevent contamination of food that might cause food-bourne illness. It covers the following elements of competency:
On successful completion of this unit you will be able to:
Use hygienic practices for food safety:

1. Follow hygiene procedures and identify food hazards
2. Report and personal health issues
3. Prevent food contamination
4. Prevent cross contamination by washing hands

Participate in safe food handling practices

1. Follow food safety program
2. Store food safely
3. Prepare food safely
4. Provide safe single use items
5. Maintain a clean environment
6. Dispose of food safely

The learning activities in this guide are based around workplace practices. Many activities ask you to use a situation or case study from your organisation to apply the skills and knowledge you are learning to your workplace. Always check with your supervisor or trainer as to the company's policies and procedures, which may impact on how some learning activities are completed, or govern the collection of product information, and the use of confidential customer details in a learning situation.
Your supervisor or trainer will inform you how and when learning activities are to be completed. For instance, your supervisor or trainer may request that all learning activities are to be documented in a separate workbook, thereby completing a portfolio of evidence, which you will be able to refer back to, or add to in the future. This will become a valuable tool in helping you to evaluate and improve your performance.

Information for Learners

Competency based training and assessment means you will receive training and be assessed against the national competency standards in line with your job role.
The competency checklist and knowledge summary in this workbook are from the competency standards.
Training Unlimited trainers are highly skilled industry professionals that offer you the support and guidance you need to achieve the outcomes required. At regular intervals throughout your training there will be a combination of both theoretical knowledge and practical skills that you will be required to demonstrate to your trainer.
Your training may take place in the workplace on the job, or in a classroom as part of a training program or course, or a combination of both. The purpose of the training is to provide you with the skills and knowledge to succeed in your role.
Competence in this unit leads to the issuance of a nationally recognised *Statement of Attainment* or a *Qualification.*
The guide is structured to allow you to develop your skills and knowledge so that you can use personal hygiene practices to prevent the contamination of food, follow predetermined organisational procedures for food safety, and identify and control food hazards that might cause food-bourne illness.

Unit Requirements

In order to achieve competency in this unit the learner must demonstrate:
Performance evidence:
SITXFSA005 Use hygienic practices for food safety
Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- use hygienic food handling practices in line with organisational procedures, including each of the following on at least three occasions:
  - correct hand-washing procedures
  - appropriate use of uniform and personal protective equipment
  - effective personal health and hygiene practices
  - hygienic food service
- use procedures to:
  - report unsafe hygiene practices

SITXFSA006 Participate in safe food handling practices
Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- use safe food handling practices including the correct methods of controlling food hazards at each of the following critical control points:
  - receiving
  - storing
  - preparing
  - processing
  - displaying
  - serving
  - packaging
  - transporting
  - disposing
- follow procedures to calibrate temperature probe to ensure accuracy
- follow procedures to report incidents of food contamination

Knowledge evidence:
SITXFSA005 Use hygienic practices for food safety
Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- basic aspects of commonwealth, state or territory food safety laws, standards and codes as follows:
  - meaning of contaminant, contamination and potentially hazardous foods as defined by the Australia New Zealand Food Standards Code
  - employee and employer responsibility to participate in hygienic practices
  - role of local government regulators
  - ramifications of failure to observe food safety law and organisational policies and procedures
- health issues likely to cause a hygiene risk relevant to food safety:
  - airborne diseases
  - food-borne diseases
  - infectious diseases
- hygiene actions that must be adhered to in order to avoid food-borne illnesses

- effective hand washing procedures
- when hand-washing is required:
    - upon entering a food service area
    - before commencing or recommencing work with food
    - immediately after:
        - handling raw food
        - handling money
        - smoking, coughing, sneezing or blowing the nose
        - eating or drinking
        - touching the hair, scalp or any wound
        - using the toilet
        - using cleaning products or chemicals
        - using point of sale terminals
- effective personal health and hygiene practices:
    - skin clean and no body odour
    - non-excessive make-up
    - hair clean and long hair tied back or in hair net
    - nails clean and appropriate length
    - clean-shaven or beard trimmed
    - clean uniform or clothing and enclosed shoes
    - piercings removed or covered
    - use of appropriate food-grade bandages where required
- for specific industry sector and organisation:
    - major hygiene-related causes of food contamination and food-borne illnesses
    - workplace hygiene hazards when handling food and food contact surfaces
    - contents of organisational hygiene and food safety procedures
    - hygienic work practices for individual job roles and responsibilities
    - procedures for reporting hygiene risks and unsafe work practices, including personal health issues.

SITXFSA006 Participate in safe food handling practices

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- key features of commonwealth, state or territory and local food safety compliance requirements as they impact workers at an operational level:
    - contents of national codes and standards that underpin regulatory requirements
    - reasons for food safety programs and what they must contain
    - local government food safety regulations and inspection regimes
    - meaning of contaminant, contamination and potentially hazardous foods as defined by the Australia New Zealand Food Standards Code
    - ramifications of failure to observe food safety law and organisational policies and procedures
- hazard analysis and critical control points (HACCP) or other food safety system principles, procedures and processes as they apply to particular operations and different food types:
    - critical control points for the specific food production system and the predetermined methods of control, especially time and temperature controls used in the receiving, storing, preparing, processing, displaying, serving, packaging, transporting and disposing of food

    - main types of safety hazards and contamination
    - conditions for development of microbiological contamination
    - cross contamination of food allergens
    - environmental conditions and temperature controls, for storage
    - temperature danger zone and the two-hour and four-hour rule
    - temperature control for cooling and storing of processed food
- contents of organisational food safety program, including procedures, associated requirements, and monitoring documents
- food safety monitoring techniques:
    - bacterial swabs and counts
    - checking and recording that food is stored in appropriate timeframes
    - chemical tests
    - monitoring and recording food temperatures using a temperature measuring device accurate to plus or minus one degree Celsius
    - monitoring and recording temperature of cold and hot storage equipment
    - visually examining food for quality
- methods to ensure the safety of food served and sold to customers:
    - packaging control:
        - using packaging materials suited to foods
        - monitoring of packaging damage
    - protective barriers
    - temperature control
    - supervision of food displays
    - utensil control
- providing separate serving utensils for each dish
- safe food handling practices for the following different food types:
    - dairy
    - dry goods
    - eggs including raw egg foods
    - frozen goods
    - fruit and vegetables
    - meat and poultry
    - fin-fish and shellfish
- operating procedures for temperature probe:
    - calibration
    - correct use
    - cleaning methods
    - identifying faults
- choice and application of cleaning, sanitising and pest control equipment and materials following manufacturers advice
- cleaning, sanitising and maintenance requirements relevant to food preparation and storage:
    - cleaning:
        - dirt
        - food waste
        - grease
        - pest waste removal
    - sanitising:
        - eating and drinking utensils
        - food contact surfaces

  - maintenance:
    - minor faults
- high risk customer groups:
  - children or babies
  - pregnant women
  - aged persons
  - people with immune deficiencies
  - people with allergies
  - people with medical conditions.

Assessment

Once you have completed your training and practised your skills, you will be ready to have your skills and knowledge assessed. Assessment usually involves a number of assessment activities over a period of time. Sometimes assessment in this unit might be combined with assessment in another related unit.
All units are graded competent or not yet competent. If you have been deemed not yet competent in a task you will be provided with feedback on areas needed for improvement and provided with another opportunity to complete the task.
As you read through your workbook complete all activities to provide to your trainer for feedback, this is a great way to prepare for your assessment.
Upon successful completion, you will be awarded with a Qualification or a Statement of Attainment for the units you have completed.
Assessment methods include but are not limited to:

- Customer feedback
- Answers to questions about specific skill and knowledge
- Review of portfolios of evidence
- Third party workplace reports of on-the-job-performance

We acknowledge the need to make reasonable adjustments within our assessment and learning environments to meet your individual needs. If you would like to speak confidentially to someone about your needs, please contact your trainer.

Learning Tips

- Your trainer is committed to your learning and development needs. Feel free to ask questions at any time to ensure you understand what is required.
- Set aside some time each week to read through the workbook and complete the activities.
- Ask your trainer for feedback as you work through the activities.
- Practice your skills as often as you can, 'remember practice makes perfect'.
- Seek more information by using the Internet, relevant textbooks or maybe ask your supervisor or manager at your workplace for help. Your trainer can provide you with information on recommended resources.
- When you have successfully completed the requirements, check yourself against the Competency Checklist to see if you are ready for assessment.

Why is Hygiene and Food Safety Important?

Working in the tourism and hospitality sector we have a direct effect on the health and wellbeing of customers and fellow staff members.

Our environment and bodies are host to many infectious bacteria and viruses. These can be spread between people, animals, in food and in the water supply. When people are exposed to these harmful bacteria infections and illness can develop.

It is every food handler's duty to ensure they do not put other people or themselves at risk.

The best way to reduce the possibility of health problems is to follow the appropriate hygiene, cleaning and food safety procedures that are set out in your workplace. Whether you work in food preparation areas, preparing rooms for guests, serving food and drinks or in cellars and stores, it is essential to maintain a safe, healthy and hygienic workplace.

Food safety and hygienic practices are important because:

- About 4.1 million Australians get food poisoning each year (NSW food authority 2016)
- This, on average, results in 120 deaths, 1.2 million visits to doctors, 300,000 prescriptions for antibiotics and 2.1 million days of lost work and
- $1.2 billion a year, is the estimated annual cost to the economy of food poisoning in Australia.

Authorities believe that only a small amount of food poisoning cases are in fact reported, hence the *real statistics* could be much higher.

Have you ever had food poisoning and not reported it or maybe you didn't know it was food poisoning?

Terms and Meanings

When learning about and food safety and hygiene it is useful to be familiar with key terms commonly used.
Prior to starting your learning, please take time to familiarise yourself with these common terms used within the learner guide and industry.

Contaminant	Any biological or chemical agent, foreign matter, or other substances that may compromise food safety or suitability.
Contamination	The introduction or occurrence of a contaminant in food.
Cross contamination	Contamination from one food, surface or utensil to another e.g. juices of raw chicken onto a knife that is then used to chop tomato
Food-borne disease	A disease that is likely to be transmitted through consumption of contaminated food.
Food hygiene	Refers to hygienic practices to be followed when handling food products.
Food poisoning	Sickness resulting from consumption of food that has been contaminated
Food safety program	A program set out in a written document retained at the food premises of the food business, including records of compliance
Food safety supervisor	Trained person/s within the business responsible for looking after food safety
Hazard	A biological, chemical or physical agent in, or condition of, food that has the potential to cause an adverse health effect in humans
HACCP	HACCP (***Hazard Analysis Critical Control Point***) is a preventative food safety management system used to prevent, control or eliminate any food safety hazards that may cause illness, death or injury.
Potentially hazardous food	Food that must be kept at certain temperatures to minimise the growth of any pathogenic microorganisms that may be present in the food or to prevent the formation of toxins in the food
Single-use item	An instrument, apparatus, utensil or other thing intended by the manufacturer to only be used once in connection with food handling and includes disposable gloves.

All terms listed are discussed in more detail in the content. The web link below provides a more extensive glossary of definitions you could refer to as complete the learning for this module.

Reading: https://www.foodstandards.gov.au/publications/documents/Glossary.pdf

The Law: Food safety legislation

Compliance with Federal, State or Territory and Local Government food safety requirements is the responsibility of *all workers* within hospitality businesses that prepare and serve food in Australia and New Zealand.

Food Safety Legislation

Currently in Australia there are three levels of government involved in food safety:

1. Federal
2. State / Territory
3. Local Government

This legal framework is used to ensure that businesses meet the *minimum standards* required.

1. Federal level – Australia New Zealand Food Standards Code

Australia and New Zealand share a joint food standards setting system that ensures food sold in both countries is safe and suitable for human consumption. This is the Australia New Zealand Food Standards Code. In Australia the States and Territories enforce Code through their own State or Territory laws. In New South Wales this is the Food Act 2003, and the Food Regulation 2015, Queensland has the Food Act 2006.
Other states and territories deliver this through their own Food Acts (e.g. Victoria has the Food Act 1982, etc).
Serious offences related to the sale of food are consistent across all states and territories and provides a level playing field for food businesses nationwide.

These offences are:

- Sale of unsafe food
- Sale of unsuitable food
- Misleading conduct in relation to the sale of food (includes advertising)
- Sale of food not complying with purchaser's request (e.g. allergenic declaration made by consumer).
- Sale of equipment or packaging and labelling material in a way that may render food unsafe.
- Non-compliance with a provision of the Australia New Zealand Food Standards Code.
- False description of food.

This content is designed to provide an overview of the core offences food handlers and proprietors need to be aware of when working in NSW and QLD. Appendix 1 is an extract of the NSW Food Act 2003, covering the laws discussed in this module.

Introduction

The Australia New Zealand Food Standards Code

The NSW Food Act 2003 requires all food businesses operating in NSW, whether large scale manufacturers, major supermarkets, fast food chains, local cafes, or small home-based food businesses to comply with the Australia New Zealand Food Standards Code (the Code). The Code consists of four chapters that cover mandatory requirements for food safety, food identity (i.e. prescribed names for certain foods) and food labelling wherever food is sold.

Two chapters of the Code are very important for food safety supervisors:

- Chapter 3 describes requirements for food businesses generally, retail food handler skills and knowledge, food handling controls, health and hygiene requirements, cleaning and sanitation requirements, and animal and pest controls for food businesses (Standard 3.2.2). Standard 3.2.3 of the Code relates to food premises construction and food transport vehicles.
- Chapter 1 describes food labelling requirements. Food Safety Supervisors should also be familiar with provisions for food identification, names and addresses of suppliers, and allergen descriptions.

Food Safety Standards

There are **4 Food Safety Standards** applicable to Australian food businesses.
The first 2 standards listed, (3.2.2 and 3.2.3) are mandatory for all food businesses.

1. Food Safety Practices and General Requirements (3.2.2: Mandatory for all food businesses)

   This standard sets out specific food handling controls related to the receipt, storage, processing, display, packaging, transportation, disposal and recall of food. Other requirements relate to the skills and knowledge of food handlers and their supervisors, the health and hygiene of food handlers and the cleaning and maintenance of food premises and equipment.

2. Food Premises and Equipment (3.2.3: Mandatory for all food businesses)

   This standard sets out the requirements for food premises, fixtures, fittings, equipment and food transport vehicles.

3. Interpretation and Application (3.1.1)

   This standard gives meanings and definitions to words used in the standards e.g. food handler, clean, sell etc. It also gives the meaning of safe and suitable food, and states who and where the standards apply i.e. all food businesses in Australia.

4. Food Safety Programs (3.2.1)

   A food safety program is a written system that shows how a food business makes sure that the food it makes is safe to eat. The guidelines identify the businesses that are required to have a food safety program

2. State / Territory level

The role of State / territory government agencies is to interpret and enforce the Food Standards Code.
Each state or Territory passes its own legislation to govern food safety, some adopting the code into their legislation as it stands, whereas others, such as NSW choosing to implement additional measures, specific to their state.
It is important that you are familiar with the legislation in your State / Territory to develop your knowledge and understanding of the responsibilities of your employer and yourself.
For specific details and summaries concerning State / Territory legislation visit the relevant websites:

NSW www.foodauthority.nsw.gov.au
VIC www.2health.vic.gov.au
QLD www.health.qld.gov.au
WA www.public.health.wa.gov.au
ACT www.health.act.gov.au
SA www.sahealth.sa.gov.au
NT www.health.nt.gov.au

Other laws

Appointment of food safety supervisor
Training Requirements
In December 2022, FSANZ Standard 3.2.2A was passed at a federal level. This law states that every food business that serves food must have at least one designated Food Safety Supervisor on staff at all times, and that all Food Handlers must be trained to a specific standard.
Food service, such as cafes and restaurants, are integral to our way of life and are vitally important to the Australian economy. Many businesses do an excellent job in providing Australians with safe food.

What is Standard 3.2.2A?

- Standard 3.2.2.A is a national food safety standard and an extension of Standard 3.2.2 requirements.
- It applies to Australian businesses in food service, catering and retail sectors that handle unpackaged, potentially hazardous food that is ready to eat.
- Generally, these include caterers, restaurants, cafes, takeaway shops, pubs, supermarkets and delis, food vans and other facilities serving food.
- These businesses will implement either two or three food safety management tools, based on their food handling activities. The three tools are food safety supervisor, food handler training and substantiation of critical food safety controls (evidence tool).

What are the requirements?

- All food businesses in Australia must still comply with all requirements in Standard 3.2.2 and Standard 3.2.3.
- Food service, catering and retail businesses must comply with Standard 3.2.2A, based on whether they are classified as category one or category two businesses (see below).
- Category one (higher risk) businesses must implement all three management tools.
- Category two businesses must have a food safety supervisor and trained food handlers.

These requirements are in place because unpackaged, potentially hazardous food that is ready to eat is high risk and needs careful handling to keep it safe.

Category one business

- A caterer or food service business that processes unpackaged potentially hazardous food into food that is both ready-to-eat and potentially hazardous food.
- The food is then served to a consumer to eat without any further processing.

Category two business

- A retailer of potentially hazardous, ready-to-eat food, where the food was handled unpackaged, but not made or processed onsite (other than slicing, weighing, repacking, reheating or hot-holding).

What is a food safety supervisor?

A food safety supervisor (FSS) must be a person who has recognised, formal certification as a FSS, obtained in the past 5 years. They should have recent, relevant skills and knowledge to handle food safely, particularly high-risk food. Food Safety Supervisors must have completed specific nationally recognised Food Safety Supervisor training.

And if your Food Safety Supervisor leaves the business, a replacement must be appointed within 30 days.

What is food handler training?

- Food handler training must include:
  - safe handling of food
  - food contamination
  - cleaning and sanitising of food premises and equipment
  - personal hygiene.
- Food businesses must ensure all food handlers have completed a food safety training course, or have appropriate skills and knowledge, before they start handling high-risk foods.

What is 'substantiation' of critical food safety controls? (Category one)

- Businesses must keep records or demonstrate that requirements for safely receiving, storing, processing, displaying and transporting potentially hazardous food, and for cleaning and sanitising are being met. These are called 'prescribed provisions'. The business must show how these have been achieved or verified.
- The business must make a record, unless it can show in another way it is meeting requirements and be able to demonstrate this to an authorised officer (food regulator).

https://www.foodstandards.gov.au/foodsafety/standards/Pages/Overview.aspx

3. Local level

Local council / health departments implement, inspect and enforce State or Territory legislation.
In Australia, local councils oversee supervising safe food handling and conducting regular inspections of retail food businesses to assess the ability of a business to manage food safety risks and comply with the food safety standards of the Code.

The nature and frequency of inspections:

The nature and frequency of inspections is based on the FSANZ priority classification scheme, which classifies each food business into a low, medium or high risk category dependent on their business activity and the level of compliance demonstrated by a food business.

FSANZ Priority Classification System	**Frequency of visit (every x Months)**		
Classification	Starting point	Maximum	Minimum
Low	18	12	24
Medium	12	5	18
High	5	3	12
Adjustment	**Non-compliance (number and type)**		
Increase if:	Ten (10) or more non-compliances (not including serious) Two (2) or more serious non-compliances Six (6) or more non-compliances (including serious)		
Decrease if:	Not more than one (1) non-compliance (not including serious)		

Source: FSANZ (2016)

Environmental Health Officers (EHOs)

The EHOs play an important role in keeping our industry safe for both customers and workers. EHOs are commonly referred to as Health Inspectors and have wide ranging powers to conduct checks of premises, compliance with building codes and adherence to safe handling practices.

What are the powers and rights of an EHO?

The main rights of an EHO are the:

THE RIGHT OF ENTRY	An EHO has the right to enter your premises at **any time** during normal operating hours.
THE RIGHT OF INSPECTION	An EHO has the right to inspect **any and all** areas of your business. This includes taking food samples from any area, for the purposes of testing for bacteria, taking photographs or videos, seizing food, equipment or vehicles, requesting copies of records and interviewing staff.

Managers and the team on duty may request ID prior to an inspection, however once given, should then comply with all requests of the EHO.

Who in a hospitality business is responsible for compliance with the legislation?

Ultimately the owner / operator is accountable for implementing policies and procedures to the minimum requirements an establishment should demonstrate are in place.
Under the code (Food Safety Practices and General Requirements) it is the responsibility of employers to make sure all staff who have contact with food or food surfaces in the organisation have the knowledge and skills to handle food safety.
Organisational policies and procedures will be based on the legislative principles and should be supported by appropriate induction procedures during which the food hygiene responsibilities of staff are clearly explained. Follow this all staff should receive formal training in hygienic food handling, preparation and storage procedures.

Food safety supervisors: The appointment of a qualified Food Safety Supervisor is also a mandatory requirement in some States such as NSW and QLD. Their role is to make sure food safety and hygiene procedures in place are being followed and records maintained. They have the knowledge to recognise, prevent and alleviate the hazards associated with the handling of food.
Food safety and good hygiene practise is **a team responsibility** and compliance with the law can only be achieved if all team members:

- Follow food safety and hygiene procedures
- Identify and report potential food hazards
- Report any personal health issues that may lead to contamination of food
- Prevent food contamination by using hygienic practices
- Prevent cross contamination of food by washing hands

Non-compliance: Failure to observe food safety standards & organisational policies

Food safety law: The Food Standards Code sets out the minimum requirements an\ establishment should demonstrate, and all operational duties should be planned based on this code.

A range of penalties exist for food businesses that do not comply with food safety legislation including:

- On the spot fines
- Financial penalties
- Infringement notices
- Temporary closure

Examples of penalties imposed include:

- A butcher received fines of $660 each for illegally adding a Sulphur dioxide preservative to pork and beef products to disguise appearance
- A restaurant was fined 4 fines of $660 for each breach of hygiene and having cockroaches in the kitchen
- A patisserie was fined $1100 for selling a mouldy cake
- A convenience store was fined for selling flavoured milk past its use by date
- A Sydney restaurant was fined for having 3 food handlers working in a kitchen semi-naked (wearing no shirt)

Damage to the reputation of the business also needs to be considered as in some states all fines and infringements are published on a 'name and shame' list.

Organisational policies and procedures

Organisations write and implement policies and procedures to demonstrate compliance with their legal requirements.

Potential consequences of not following policies and procedures relating to food safety, personal hygiene and cleaning could include:

- The well-being of yourself and customers being put at risk
- Non-compliance with legislative requirements
- Damage to the reputation of the organisation
- Additional training
- Disciplinary action, including dismissal.

Follow organisational Hygiene & Food Safety Procedures

Organisations create policies and procedures to be followed so they can demonstrate compliance with legislation and provide safe products and services to their customers. These policies and procedures cover a wide range of activities and jobs in hospitality work areas such as:

- Kitchen operations and cookery
- Housekeeping and accommodation
- Laundry
- Stores and cellars
- Bars, Restaurants and Cafes
- Takeaway food outlets

Workplace policy and procedures may include:

HYGIENE PROCEDURES

Personal presentation requirements, uniform policies, hand washing procedure, protective equipment and clothing policy

FOOD SAFETY POLICY AND PROCEDURES

Food safety programs, HACCAP procedures, safe food and beverage handling procedures, storage requirements, preventing cross contamination, record keeping

CLEANING PROCEDURES

Procedures for using appropriate cleaning equipment and chemicals for each job and surface, linen and laundry procedures, cleaning and sanitisation schedules, garbage handling and disposal, pest control policy and procedures

TRAINING/ POLICIES PROCEDURES

Policy for staff training in regard to legal and regulatory requirements, organisational procedures e.g. personal hygiene, chemical handling and food safety requirements

Hygiene procedures to avoid food bourne illness

Human bodies naturally harbour trillions of bacteria that can be easily transferred.

By touching parts of your body and then touching your work surfaces or food, you can easily transfer disease-causing microorganisms.

Legislation requires minimal human contact with food. A barrier such as wearing a clean uniform, gloves and cleaning/sanitising your hands constantly should be present between your body and food being handled to minimise the risk of contamination.

Hand Washing

Hands are a major conductor of disease and following hand washing procedures consistently is one of the most important hygiene practices within a hospitality business to help prevent food bourne illness being spread.
Always wash hands in a designated hand-washing sink, **never** in a food preparation sink.
The following poster provides a summary of how and when to wash hands.

Wearing gloves

Most food businesses require gloves to be worn when completing certain tasks as they provide a barrier. For example, when:

- Preparing and serving food
- Handling garbage
- Using chemicals for cleaning.

Gloves can give a false sense of security. Gloves worn to complete several different tasks will pose a similar risk of cross contamination to unwashed hands.

Hygiene actions to avoid food-bourne illness when using gloves

- Remove, discard and replace gloves with a new pair
  - Before handling food
  - Before working with ready to eat food after handling raw food
  - After using the toilet, smoking, coughing, sneezing, using a handkerchief, eating, drinking or touching the hair, scalp or body
- Avoid contaminating food by using gloves for one continuous task and then discarding them.
- Use different coloured gloves in different areas e.g.
  - In the kitchen for food preparation
  - Cleaning bathrooms
  - Cleaning in the kitchen
  - Cleaning front of house areas, e.g. Dining rooms
- Always wear gloves when cleaning
- Always wear gloves when handling garbage
- Regularly check your gloves to ensure they are intact as they can easily tear which can lead to food contamination.
- Wear the right size glove for your hand. Gloves that don't fit correctly may tear or get caught on machinery or equipment and therefore be unsafe.

Reporting Personal Health Issues

As a food handler, it is a legal requirement to report personal health issues to your employer because of the contamination risks posed to customers and colleagues from:

- Airborne disease
- Infectious disease
- Foodborne disease

A food handler is anyone who works in a food business and who handles food or surfaces that are likely to be in contact with food. (Standard 3.1.1)

Airborne diseases

Airborne diseases are caused by pathogens transmitted through the air as very small particles. These disease-causing pathogens can spread from one person to another through coughing, sneezing, talking, and even breathing & laughing!

The 3 main types of organisms that because airborne diseases are viruses e.g. Flu, bacteria e.g. Tuberculosis and fungi e.g. Valley Fever

Infectious diseases

A disease is classed as an infectious disease when it is caused by microorganisms such as viruses, bacteria, fungi or parasites and can spread directly or indirectly between individuals, such as whooping cough, measles, shingles.

Foodborne disease
Foodborne disease is often referred to as food poisoning.

If you are suffering from a food borne disease such as Salmonellosis, Hepatitis A, Hepatitis E, Campylobacteriosis, you may be highly infectious, and it is your responsibility to report your illness **immediately** to a manager and not come into work or cease work.

Food Safety Standard 3.2.2 – Food Safety Practices
A food handler who has a symptom that indicates the handler may be suffering from a food-borne disease, or knows he or she is suffering from a food-borne disease, or is a carrier of a food-borne disease, must, if at work:

a) report that he or she is or may be suffering from the disease, or knows that he or she is carrying the disease, to the supervisor
b) not engage in any handling of food where there is a reasonable likelihood of food contamination as a result of the disease; and
c) if continuing to engage in other work on the food premises – take all practicable measures to prevent food from being contaminated as a result of the disease

Harmful bacteria are readily transferred to food and food surfaces and it is also your responsibility to:

- Inform your supervisor immediately if you fell ill, e.g. with flu, gastroenteritis, hepatitis, vomiting, diarrhoea; going home if your health issue poses a hygiene risk
- Minimise the spread of germs when coughing and sneezing by using paper towels or tissues, and always washing hands afterwards
- Cover all cuts and abrasions on exposed parts of the body using approved dressings
- Never spit, this can spread illness quickly
- Wash hands and or change gloves after Reporting unsafe practices

Blue, visually detectable waterproof bandages and dressings must be used in the hospitality and food industries.

Using hygienic cleaning practices to prevent food-bourne illnesses and the spread of disease

By using hygienic cleaning practices, we can prevent the spread of food bourne illness and disease by minimising cross contamination.
Cross contamination occurs when bacteria and viruses are transferred to food that is ready to eat. E.g. from raw food, hands, a contaminated surface, unclean utensils and/or equipment.

By following cleaning and sanitising procedures was can minimise this risk.
What is the difference between cleaning and sanitising?

Cleaning and sanitising are two processes and should be carried out as separate procedures.

Cleaning 	Cleaning is the act of removing dirt, food particles, grease, grime, scum etc. from a surface. Cleaning is aided by the applications of detergents, which helps lifts the dirt from the surface as well as keep it from reattaching. Cleaning usually produces a visible result. i.e. the object looks clean but that doesn't mean that there aren't bacteria lurking.
Sanitising   There are 2 types of sanitiser: Heat Chemical	Sanitising involves the application of heat and or a chemical sanitisation product to kill/reduce the number of bacteria. Sanitising can only be done once cleaning has been completed, and to be effective, the sanitation process requires a clean detergent free surface. Surfaces and equipment that come into contact with food products need to be sanitised regularly. **Sanitisation by heat:** requires water to be 77°C or above Immerse the item for at least 30 seconds **Sanitisation by chemical:** requires correct dilution of sanitiser, contact of sanitiser to food surface for time recommended and rinse if required. Food grade sanitisers, which are not harmful if residues remain, must be used in kitchen environments.

5 Steps for Effective Cleaning & Sanitising

1. **Pre-clean**

Rinse objects with water to remove particles and loose residue

2. **Wash**

Use a combination of hot water and detergent to remove dirt/grease

3. **Rinse**

Rinse off detergent, foam and residue

4. **Sanitise**

Use a food safe sanitiser to kill/minimise surface bacteria

5. **Dry**

Air dry or drip dry – avoid wiping dry as this will reintroduce bacteria

Use of colour coded cleaning equipment and cloths (swabs)

Use colour coding is considered the most effective way of reducing the risk of cross contamination. Colour coding is applied to cleaning cloths and equipment such as mops, buckets, brooms etc.

A business is generally split into 4 different areas and each area colour coded.

- Public areas – such as lobbies, receptions and hallways
- Washroom and toilets – this can include shower rooms and bathrooms
- Restaurant and bar – including dining areas and cafe lounge spaces
- Kitchen and food preparation areas – any kitchen, food station or area where food is kept and/or prepared

Colour coding can vary from business to business – do you have knowledge of the coloured cleaning zones in your workplace? Would you use a yellow swab to clean the toilet or a food preparation bench?
Later in the learner guide we will be looking in more detail at cleaning premises and equipment.

Handling linen hygienically to avoid cross contamination

Almost all hospitality businesses use linen in their operations.
For example, a restaurant would require tablecloths, napkins, waiter's cloths, aprons, uniforms, tea towels and so on. Accommodation providers will also need bed linen, bath towels and any other in-room supplies.

As most linen supplies come into contact with people's skin, it must be hygienically laundered, stored, handled and then removed from use when dirty or contaminated to minimise risks of cross contamination.

Linen should only be used for the correct purpose, e.g. only clean with designated cleaning cloths, not customer-use linen and it is important to always wash your hands before handling fresh linen, and after handling dirty linen.

Where linen has been stained by bodily fluids, e.g. blood, faeces, or vomit, a biohazard waste bag should be used. This is to prevent contamination and to protect staff that must handle contaminated linen. These specialised bags are usually red in colour and disintegrate during the wash cycle. A disposable apron and disposable gloves should be worn when handling contaminated linen.

Linen soiled with food matter and napkins that have been used by customers to wipe their mouths etc., also need to be sorted into appropriate bins and handled with care.
Always wash your hands after handling soiled table and kitchen linen and **never** carry tea towels or serving cloths over your shoulder!

Laundering
Temperatures must be high enough to kill harmful bacteria (minimum of 68°C), but not too high that the fabric is damaged. Antibacterial detergents can be used to kill bacteria and ironing provides a final sanitisation step.

Reporting poor hygiene practices
As a food handler, you have a responsibility to follow the workplace hygiene procedures and a legal and civil obligation to promptly report any unsatisfactory work practices or hazards that may affect the health and safety of customers, colleagues or yourself.

This report needs to be made to an appropriate person with the authority to take immediate action e.g. the Food Safety Supervisor, a supervisor, head of department, manager or a business owner.
You too should take immediate action if within your level of authority.

For example: If you sneeze over food –immediately discard that food, wash your hands and sanitise the area or, if you notice a colleague has not changed their gloves – remind them of their responsibility!

Examples of poor hygiene practices by food handlers include:

- Not following personal presentation & hygiene policy
- Not wearing hair nets and / or trying back long hair
- Wearing dirty uniforms and aprons
- Unclean nails – and wearing nail polish
- Not following the jewellery policy
- Not following hand washing and change of glove procedures
- Touching their face, nose or hair while serving customers
- Contaminating linen and towels e.g. by putting them on the floor
- Using dirty equipment and utensils
- Ignoring unclean work and public areas
- Ignoring the presence of pests or vermin.

In summary follow hygienic work practices to prevent cross contamination by:

- Following hand washing procedures
- Maintaining a clean uniform and excellent personal hygiene
- Minimising direct contact with food e.g. by wearing PPE as required and using tongs
- Following glove use procedures
- Using the correct colour coded cleaning equipment and swabs
- Reporting any health issue & incidents of contamination resulting from your health e.g. sneezing over food
- Cleaning and sanitising equipment after use
- Handling linen hygienically
- Laundering linen at the correct temperature

Following food safety procedures

To fulfil your responsibilities as a food handler, an understanding of the following food safety principals is required. This knowledge will help you to eliminate and minimise potential hazards in current and future job roles.

Contamination of food

Contaminated food can look healthy, smell normal and taste good but may cause serious illness or injury to our customers.

A Contaminant: Is any biological or chemical agent, foreign matter, or other substances that may compromise food safety or suitability. (Standard 3.1.1)

Contamination: Is the introduction or occurrence of a contaminant in food. (Standard 3.1.1).
Source: https://www.foodstandards.gov.au/publications/documents/Glossary.pdf

Cross contamination: Is the transfer of bacteria and viruses from raw food, hands, a contaminated surface, unclean utensils and equipment to food that is ready to eat.

Food can be contaminated in 3 ways:

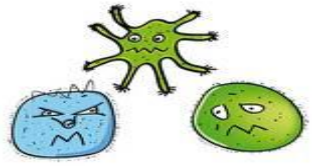
BIOLOGICAL (Microbial) CONTAMINATION 	Microbial contamination occurs when disease causing microorganisms such as bacteria, moulds, yeasts, viruses or fungi grow in food. Signs of biological contamination include: – Slime or mould on the surface and Discolouration – Strong odours – Development of gas (bubbles or foam) Gas development can affect the shape of the packaged food product e.g. bloated tops on yoghurt containers.
PHYSICAL CONTAMINATION 	Occurs when food contains foreign matter is present in food, such as glass, scourer shavings, wood or stone, insects, pests, soil and hair etc. Physical contamination can cause sickness and physical injury to customers by consuming the food.
CHEMICAL CONTAMINATION 	Results from food being in contact with toxic materials/chemicals which might be either naturally occurring or manmade. Examples of naturally occurring toxins include: – Solpadine in green potatoes – Oxalic acid in rhubarb leaves – Examples of contamination from manmade chemicals include: – Cleaning chemicals not rinsed off surfaces or equipment correctly – Improper storage of chemicals in food areas – Defrosting food in the hand washing basin – Not washing fruits and vegetables

Food Poisoning

Food borne illness, commonly referred to as food poisoning is sickness results from consuming contaminated food or drink. The most common cause of food borne illness is from the spread of pathogenic (harmful) bacteria, because of poor food handling, preparation and storage practices. This is referred to as *microbiological* contamination of food.

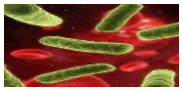
Food borne illnesses by microbiological contamination of food can be caused by:

- Bacteria
- Viruses and Prions
- Parasites
- Moulds and toxins
- Allergens



Bacteria can be picked up and spread from our own body, raw foods and from contaminated surfaces.

Bacteria



Examples: Salmonella, E. coli, Listeria, C. botulinum

Bacteria can be found just about everywhere: on people, animals, surfaces, food, in soil etc. Food handlers host bacteria in their throat, nose, skin, hair and faeces, which can easily be transferred to food and food surfaces.

Not all bacteria are bad, some bacteria live in your stomach to help you digest your food and these are often sourced from the food we eat. For example, Yoghurt is a great source of lactobacilli, which helps protect against harmful microorganisms.

When bacteria land on a food item, they can begin breaking it down and begin growing. In the right conditions, they can multiply quickly to dangerous levels which will make a person sick.

Bacteria can multiply every 20 minutes. After 7 hours, there could be more than **2 million** bacteria present in food. We will look at how to minimise bacterial growth by controlling temperature and time, later in the learner guide.

Time	0800	0820	0840	0900	1100	1300	1500
Bacterial growth	1	2	4	8	512	32,768	**2,097,152**

Viruses and Prions

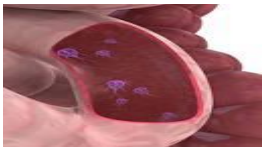
Examples: Hepatitis A, Norovirus, Bovine spongiform encephalopathy

Food poisoning viruses are tiny infectious agents that can only survive and replicate inside human cells. They reproduce by invading a human body cell, multiplying lots and lots of times, and then bursting the cell so that each new copy can go and find more cells to invade. A person gets ill when their immune system gets overwhelmed by the number of viruses.

If an infected person sneezes or coughs, some of these new copies will get into the air. If someone else breathes them in, they can become infected as well. Viruses can also be passed by landing on surfaces and being transferred by hands etc. Food placed on this surface would also be contaminated.

Prions are extremely small – smaller than viruses and are a disease-causing form of a natural protein. Mad cow disease (Bovine spongiform encephalopathy), is caused by prions which come from infected animals and affect the human brain structure. There are currently 214 reported deaths due to mad cow disease.

Parasites



Examples: Tapeworm, roundworm

Parasites are creatures that live by sucking nourishment from their host, for example, tapeworms that live inside human intestinal tract. They are spread by ingesting contaminated water or food or by putting anything into your mouth that has come in contact with the faeces of an infected person or animal.

For instance, raw fruit or vegetables may be tainted with animal faeces from the land. Raw or undercooked meat from infected animals can also pass on parasites, especially if offal is not processed correctly.

A food handler could also pass on parasites if they have not sufficiently washed their hands after using the bathroom.

Moulds and Toxins

Examples: Aspergillus, Puffer fish, Chemical pesticides

Some moulds are acceptable such as the moulds on blue cheese. Others give off spores which can cause allergic reactions or produce toxins which can cause serious disease and in some cases, be deadly.

If foods are not washed or prepared correctly these poisons could be ingested.

Never use or serve food that has signs of mould anywhere on the surface.

Which Foods are higher risk (potentially hazardous) foods?

Potentially hazardous foods tend to be high in moisture, protein and fat promote bacterial growth and are foods are more susceptible to spoilage than others.
These foods need to be handled and stored carefully and specific organisation procedures followed. E.g. The procedure for the storage, handling, cooking and cooling of eggs at your organisation.

The following foods are examples of potentially hazardous foods defined in the Food Safety Standards:

- Raw and Cooked meat
- Dairy products
- Seafood
- Processed fruits and vegetable
- Cooked rice and pasta
- Food containing eggs, beans, nuts, and soy.
- Foods that contain these foods, for examples sandwiches, pizza etc.

High Risk Customers

Some customers are also more at risk of food poisoning than others. People who are generally more at risk include:

- Elderly
- Pregnant Women
- Babies/Children
- Sick people
- People with immune deficiency
- People with allergies

Special care must be taken when preparing food and serving these customers.

Common sources of food contamination and resultant food borne illnesses

A food borne illness can come on as quickly as a few hours after ingestion, or as slowly as a few days later. The exact nature of the illness will depend on the cause and the person affected.

Food poisoning symptoms include:

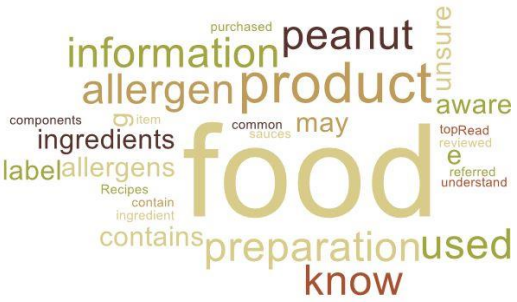
- Diarrhoea
- Nausea
- Fevers/Chills
- Vomiting
- Abdominal pain/cramps
- Numbness
- Jaundice
- Fever
- Headache
- Dizziness
- Blurred Vision

All allegations of food poisoning must be reported to a manager immediately and recorded per organisational procedures.

Common sources of food contamination and resultant food borne illnesses

AGENT	SOURCE	INCUBATION PERIOD	SYMPTOMS
Campylobacter spp. *(spp means more than 1 species)*	Undercooked poultry, mince and sausages, under pasteurised milk, cooked foods contaminated by raw products	1-10 days	Fever, nausea, abdominal cramps, diarrhea
Staphylococcus	Raw meat and poultry. Raw milk, custard, hams, sausages, salads, uncovered cuts and sores	0.5-8 hours	Nausea, vomiting, abdominal cramps, diarrhea
Salmonella spp.	Chicken, mayonnaise, salads, milk, orange juice, sprouted seeds, dairy products; cross contamination from raw foods, utensils, equipment and hands	6-72 hours	Headache, fever, nausea, abdominal cramps diarrhea
Listeria monocytogenes	Most raw foods, cooked food contaminated through poor handling. Cold cooked chicken, cold meats, pate, pre-prepared salads, chilled seafood, soft serve ice-cream, soft cheeses	12 hours –3 weeks	Fever, chills, headache, tiredness, backache Abdominal pain, diarrhea Meningitis, Miscarriage, premature birth and death
Clostridium perfringens	Soil, intestinal tracts, food left in danger zone for some time; slowly cooked foods such as casseroles, stews, gravies and pie fillings	6-24 hours	Abdominal cramps, profuse diarrhea
Clostridium botulinum	Canned foods, dirt	12-36 hours	Nausea, vomiting, swallowing, speaking difficulties, visual disturbances
Bacillus cereus	Starchy vegetables, meat products, cereals, rice, sauces, puddings, spices	1-6hours (vomiting) 6-24 hours (diarrhea)	Malaise, nausea, vomiting, abdominal cramps, tense muscles, profuse diarrhea
Norovirus	Food contaminated by faecal matter, person to person contact	24-48 hours	Fever, nausea, vomiting, abdominal cramps, diarrhea, headache
Influenza rhinovirus	Human bodily fluids shared because of poor health practices and or inadequate sneeze guards	1-4 days	Runny nose, cough, fever, headache, sore muscles
Escherichia coli	Unpasteurised apple and orange juices, sprouted seeds, fruit, raw milk, cheese, salads, meat and meat products especially undercooked mince	2-5 days	Nausea, abdominal cramps, diarrhea, bloody diarrhea
Histamine	Fish such as tuna, sardines, mackerel, swordfish and marlin Some red wines and cheeses	30 minutes to 4 hours	Tingling of mouth and lips, skin rash, headaches, dizziness, itchy skin

Allergens



Food allergies are a serious health and safety risk and are becoming more common. It is critical that the Food Safety Supervisor (FSS) and all food handlers working in a food business understand their obligation to know what ingredients are in the food products that they handle, make, or sell.

Any food may contain an allergen. It is vital that the business and FSS ensure procedures and training are put in place that provide guidance for food service staff so they understand their obligations to declare known allergens in food when a customer asks.

The service of an allergen to a person who is sensitive to it can lead to serious health consequences, including death.

Food businesses are accountable for knowing the presence of allergens in foods they sell. Ignorance is not an excuse, nor a defence. This applies whether the food sold is packaged or unpackaged.

Introduction

The instances of allergic reactions to various foods have increased dramatically in the past few decades. The Food Standards Code legally requires ten common allergens to be declared, but there are many other foods that can cause allergic reactions.

Fatal reactions to food allergies

People with food allergies react differently. Some people have a reaction that presents as a rash or hives, others may suffer swelling or dizziness, which can affect their breathing. Anaphylactic reactions can occur almost instantaneously in persons who are sensitive to allergens, and in severe cases, death will occur if the allergic reaction can't be treated quickly. Regardless of sensitivity, there is no safe level of exposure for individuals with an allergy.

Key messages to understanding food allergens

The main factors to understand about food allergens are described below. These will be explained in more detail in the following sections:

1. Always treat an allergy request seriously.
2. Any food may contain an allergen. Once a customer informs of an allergy it is the businesses **legal** responsibility to prepare food that doesn't contain the allergen or notify the customer, they cannot guarantee the customer food that does not contain the allergen.
3. There are ten common allergens. These contribute to over 90% of food allergies and are legally required to be declared on labels.
4. Review recipes, ingredients and food components such as premade sauces,

checking if they contain allergens.

5. Read the label on all ingredients used in food preparation. If a premade food item or ingredient does not have a label it should not be used unless you have documentation listing all ingredients.
6. Be allergy aware during food preparation. Allergens may be introduced through cross contamination between allergenic and non-allergenic ingredients (e.g. peanut oils used to fry non-peanut containing food, may introduce traces of peanut into food).
7. Cross contamination during preparation mostly occurs through the following ways:

- Food to food – such as touching or dripping.
- Food to hand - unhygienic handling by cooking staff, front service staff.
- Food to equipment - sharing of utensils.

8. Be aware of business responsibilities about communicating allergen information:

- If the product contains an allergen, you must let the consumer know by labelling the food product or telling them this is the case, when they ask.
- If you can't guarantee a customer an allergen free meal, you must notify the customer.

9. Allergens are an important food safety risk. Heavy penalties, including prosecution and criminal conviction may apply to businesses complicit in customers experiencing allergic reactions from their food.

Learning activity:

The following recent examples demonstrate the serious consequences of allergic reactions to food and how widespread this condition is across different demographics. You can follow the links to read more about the food allergies involved. Pay special attention to how easily very small amounts of allergens can cause fatal reactions, even where medical responses are immediate.

Sam Collins, 19, died from an allergic reaction after eating at a local restaurant. Full Story

Joanna Salamingo-Fontaine, 30, died after eating a dessert ball with cashew milk. Full Story

Raffi Pownal, 3, died after being a served 'free from dairy' chocolate bar. He had a severe milk allergy. Full Story

Justin Mathews, 33, died after being exposed to walnuts during sandblasting. Full Story

Nainika Tikoo, 9, died after eating pancakes topped with blackberries. Full Story & Full Story

Alexi Staffor, 15, died after eating a food containing yogurt. She had a dairy allergy. Full Story

Alastair Watson, 3, suffered an anaphylactic reaction during a baked milk challenge. Full Story

Amanda Thompson, 50, died after having an allergic reaction to a Sorbet. Full Story

https://www.theguardian.com/uk-news/2019/may/03/paramedic-treated-boy-cheese-allergy-panicked-inquest-london

http://nonutsmomsgroup.weebly.com/blog/remembering-those-we-have-lost-to-food-allergies

Read at least two of the articles listed in the box on the previous page. List below two key messages you can take away from these articles about allergen management. Discuss your responses with another student or colleague.

_____

_____

_____

_____

Allergies and food intolerances

You need to be aware of and to understand the differences between allergies and food intolerances, as they develop and present differently to one another.

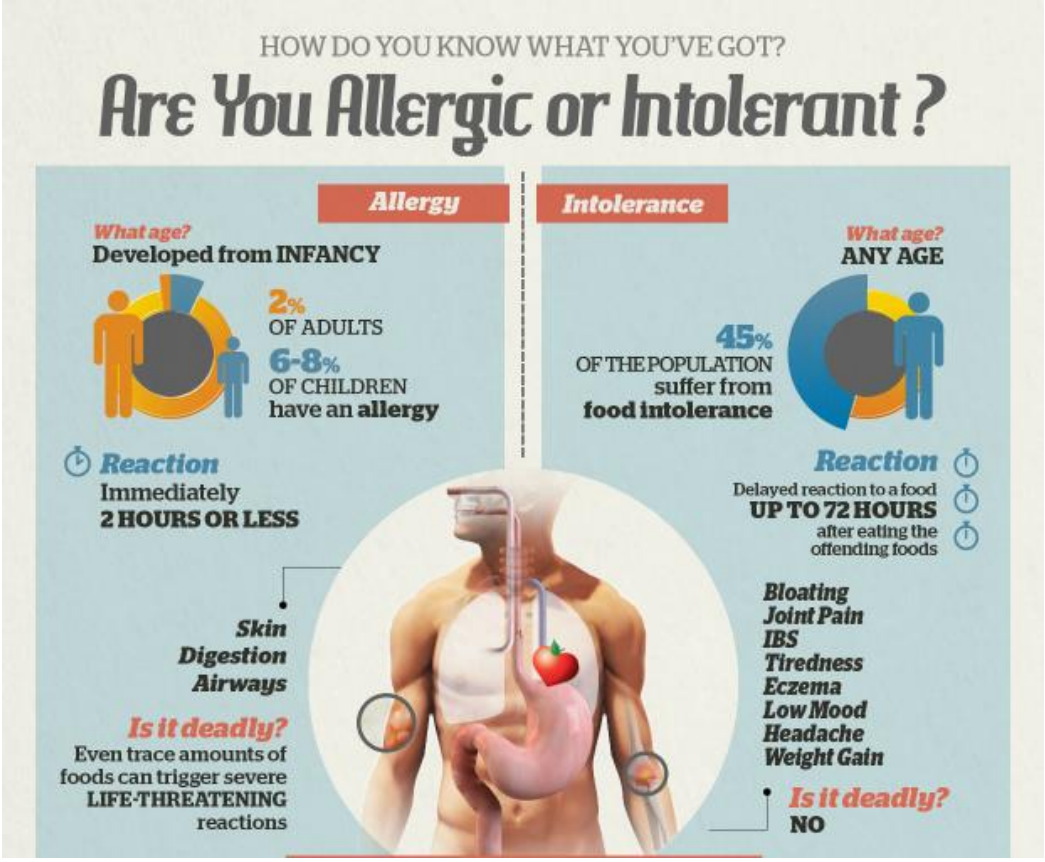


Image link: http://img.allw.mn/content/gk/oh/wxtoehae.jpg

Allergies

A food allergy is an immune response by the body to a protein that the body 'thinks' is harmful. There is no cure for a food allergy. The only way to prevent an allergic reaction is to avoid eating the food containing the protein.

The body can react in many ways to an allergen such as; developing hives, swelling, pain, vomiting, difficulty breathing, dizziness and collapse. The symptoms can be fatal. **There is no safe limit for exposure to an allergen.**
Allergies are different from food intolerances.

"Impaired vision, bloated abdomen, cold hands...they could be symptoms of a severe peanut allergy."

Food intolerances

Food intolerance is the bodies inability to digest or process some foods e.g. gluten in bread.

Gluten, lactose, yeast, food additives and sulphites are all products which may cause intolerances in some people. While the symptoms can be unpleasant, and in some cases severe, they are generally not life-threatening. Food handlers should apply the same principles to responding to intolerances as allergies.

Cereals containing gluten and their products must be declared on the food package label. Foods with added sulphites in concentrations of 10 mg/kg or more must also be declared on the food package label. Where a food product is not required to carry a food label, the declaration must be displayed on the food or in connection with the display of the food or declared to the purchaser upon request.

Further links: Food allergy and intolerance (NSW Food Authority)

The 'top ten' allergens

While the 'top ten' most common food allergens cause around 90% of allergic reactions, **ALL** foods can be allergenic depending on individual sensitivity.
The top ten food allergens and the products they make, that must be declared by law, are:

1. peanuts
2. tree nuts (e.g. almonds, cashews)
3. eggs
4. milk
5. fish
6. crustaceans e.g. prawns, lobster)
7. sesame
8. soy
9. wheat
10. lupin

Link to image: http://www.foodauthority.nsw.gov.au/_Documents/retail/be_prepared_be_allergy_aware.pdf

Knowing your products and effectively communicating product information is key to ensuring the safety of your customers with food allergies.

Standard 1.2.3. of the Food Standards Code (the Code) also requires products with sulphites in concentrations of 10mg/kg or more to carry a declaration the product contains sulphites. Sulphites are listed in the Code because it can trigger asthma symptoms in sulphite-sensitive individuals. The FSS and food handlers should treat sulphite queries in the same manner as an allergy question.

Allergens in detail

This section includes a sample list of products for each of the top ten allergens. Each allergen is frequently used as an ingredient in other foods you may not be aware of. It is important to review ingredients of all pre-packaged foods when checking for allergens and look for any trace of allergen or declaration of cross contamination.

Peanuts

Peanuts could be considered the poster food for allergies but are classified as legumes and not nuts. They contain many potential proteins that may trigger an allergic reaction in susceptible customers and are common ingredients in many cuisines and premade products (e.g. satay sauces). Food handlers should be aware, foods containing other nuts may also have traces of peanut due to cross-contamination during manufacture. Common peanut ingredients in commercial kitchens include; peanut oil, butter and raw or roasted whole nut.

Tree Nuts

Tree nuts are separate to peanuts and include; almonds, brazil nuts, cashews, chestnuts, hazelnuts, hickory nuts, macadamia nuts, pecans, pine nuts, pistachios, walnuts and others. Many with a tree nut allergy will be allergic to more than one type of tree nut, so it is important for staff in food businesses to check products for any tree nut ingredient, not just individually declared allergies. Tree nut products include; flours and meals, some non-dairy milks, bakery products and as flavourings for foods such as ice creams and chocolate.

Eggs

Eggs are another common allergy triggering food, particularly for children. Both the white and the yolk can cause an allergic reaction, so food handlers should not serve either if a customer notifies of an egg allergy. Eggs are also a common ingredient in lots of foods, including; baked goods, meringues, custards and other desserts, pasta and some types of noodles, dressings such as mayonnaise and aioli, and as a binding agent in processed foods, including some processed meats.

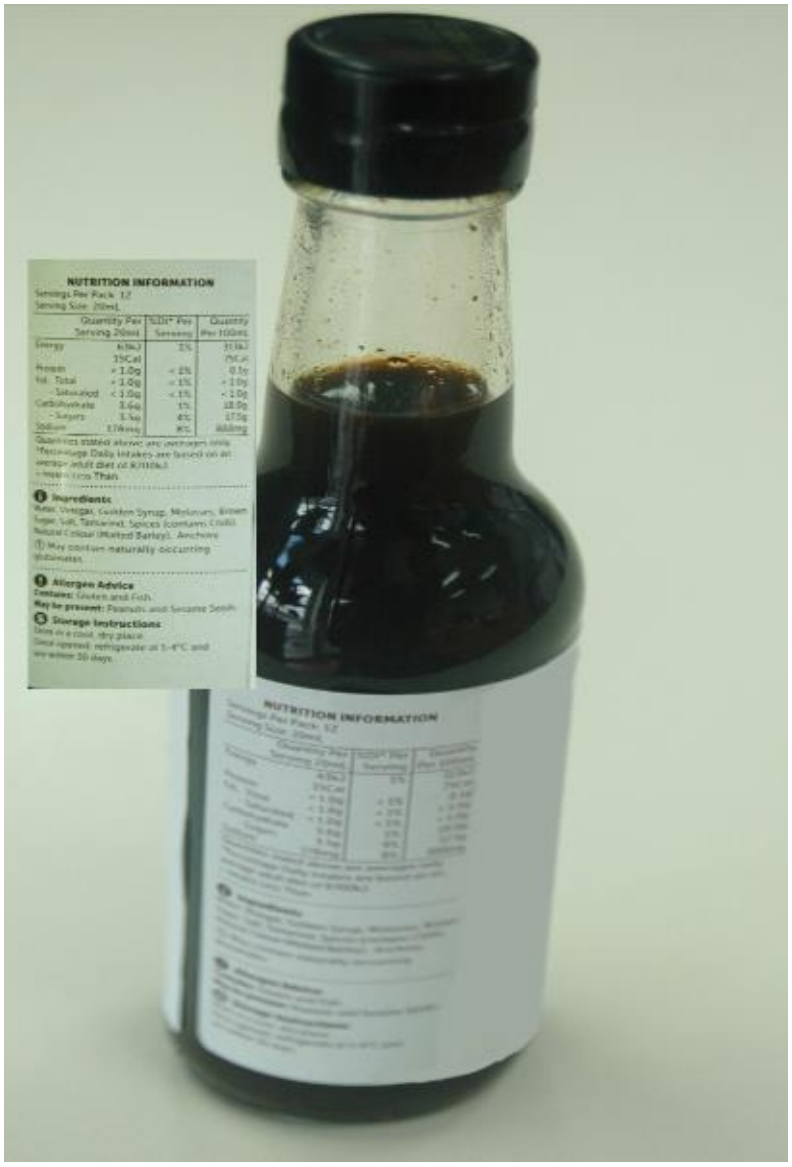
Dairy

Milk allergies should not be confused with lactose intolerance. Milk allergies are caused by an immune system reaction to proteins in milk products, whereas lactose intolerance results from the body lacking the digestive enzyme, lactase. Those with a milk allergy may also have allergies to other animal milks like goat or sheep. It is important you check with the customer what alternatives they can consume, as many non-dairy milks are made from other allergens like soy or almond (tree nut). Because milk products are common, food handlers should be mindful of; cheese, cream, powdered milks, yoghurts, whey protein, as well as fresh milk. The Food Authority recently prosecuted a business importing coconut milk for failing to declare milk proteins. The presence of milk proteins was confirmed in these products through

laboratory analysis. The outcome of this matter was a guilty verdict with a conviction recorded.
Further case studies based on actual investigations, may also be found on the website: https://www.foodauthority.nsw.gov.au/resource-centre/case-studies-and-project-outcomes

Fish

Fish allergies refer to finned fish species, people diagnosed with an allergy for one type of fish are advised to avoid all other species. However, people with fish allergies have not been shown to have a significantly increased risk of shellfish allergy. A fish allergy is also more likely to be diagnosed later in life, in contrast to most other allergies that are more common in childhood. Food handlers should be aware of processed fish products such as; fish sauce, imitation crab or lobster (surimi), anchovies, and fish stock, as well as whole pieces of fish in their menus. Some sauces, including Worcestershire and Caesar salad dressing will include anchovies.



Worcestershire sauce

Shellfish

Shellfish allergies, like eggs, are a well-known allergy and includes all kinds of marine invertebrate (boneless animals). Shellfish allergy includes crustaceans like; crab, lobster, prawns, scampi, and crayfish, as well as molluscs like, snails (including escargot), clams, oysters, mussels, squid (calamari), and octopus. Shellfish are also common ingredients in Asian soups, sauces, and stocks and as flavourings. Food handlers should ask for clarification if a customer is allergic to all, or some types of shellfish.

Escargot

Lobster

Oysters

Prawns

Soybeans

Soy is another legume allergen that has several common alternative names like; bean curd, tamari, tempeh, and tofu, which means food handlers should be checking for alternative names on labels. Aside from obvious soy products like soymilk and soybean paste, soy is a common vegetable product in processed foods, particularly as a meat or dairy substitute in vegetarian dishes. Soy is also known to be used as a substitute for gluten or allergy-free breads. It can be found in; vegetable stocks, gums, soup mixes, and as flour or flavouring in cereals and baked goods. Food handlers should also be aware of Edamame beans, which are whole, immature soybeans often served in Japanese cuisine and can be eaten as snacks.

Tempeh

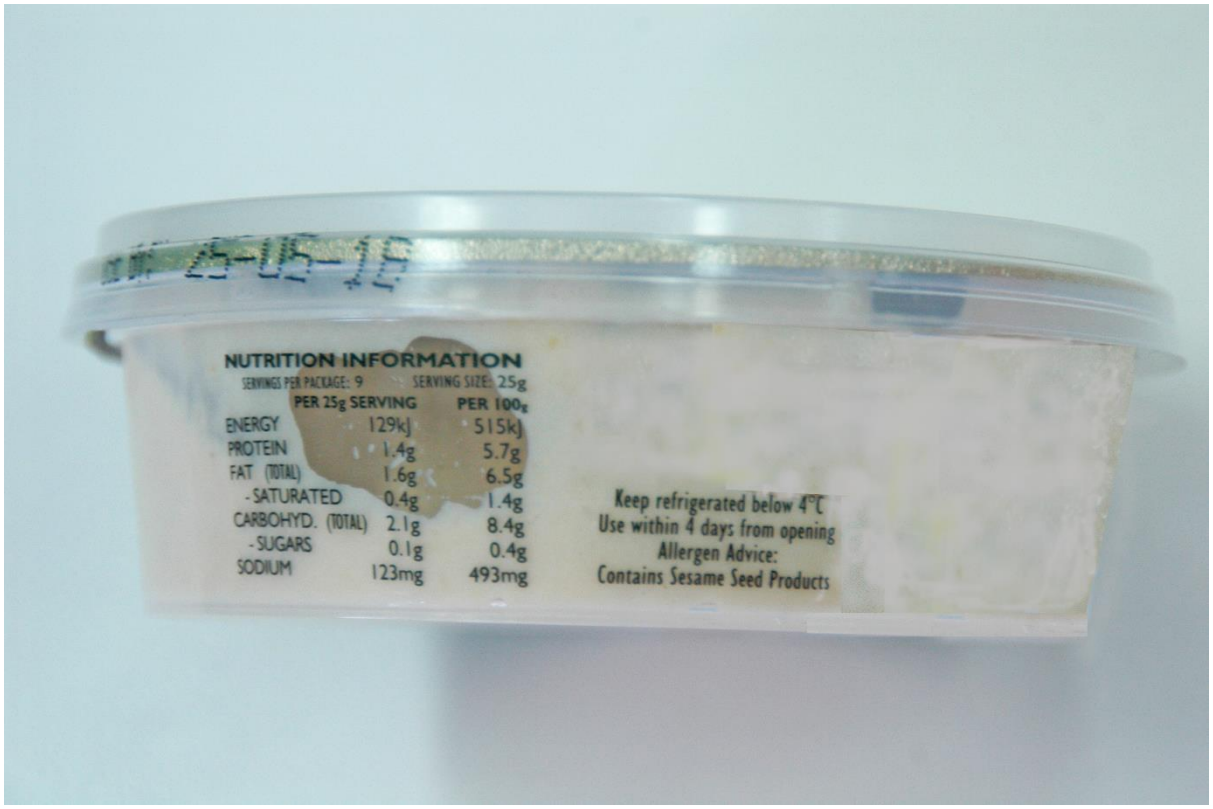
Tofu

Sesame

Sesame seeds are known to be a very strong allergen, so it is critical to check ingredients for sesame products. Sesame is a common ingredient in a range of cuisines, from Asian dishes made with sesame oil, to Turkish and Lebanese foods such as tahini and hummus. Sesame seeds are used in many types of baked goods such as crackers, biscuits, and pretzels, in salads as either seeds or oil in dressings, spice mixes, marinades and herb rubs, and in vegetarian foods

.

Hummus



Wheat

Wheat allergies should not be confused with gluten intolerance or coeliac disease. A wheat allergy is an immune sensitivity to wheat proteins, and exposure symptoms are like other allergic reactions, up to and including anaphylaxis.

Common products containing wheat are; bread, biscuits, cakes and other baked goods, pasta, and cereals, wheat is also used as a thickening agent in; sauces, lollies like liquorice, jelly beans, and hard candies, in vegetable gums, hydrolysed vegetable protein, beer and ales, and processed meat products like hot dogs.

Freekeh is another wheat product to be mindful of. Freekeh is roasted immature durum wheat found in Middle Eastern dishes and should also be avoided by wheat-allergenic customers.

Gluten is also found in barley and rye grains, so it is important to look for the right ingredients when assisting a wheat allergenic customer.

Lupin

Lupin is also a legume and is increasingly used as a gluten-free alternative to wheat and other grain flours. However, it is also known for high cross-reactivity with peanut allergies because it carries similar proteins. Lupin is typically found where wheat or other flours can be substituted, such as breads, biscuits and other baked goods, sauces, pasta, processed meat products like burgers and sausages, and also as a substitute for soy products.

Product management to avoid allergic reactions

Know your products and their ingredients	Communication of ingredients	Food preparation
•Be aware of ingredients added to products • Know the process of preparation and opportunity for cross-contamination •Only use labelled ingredients	•Give staff and customers ingredient information (full disclosure) both in written documents and in response to verbal questions •Provide a safe environment for staff to feel comfortable to ask management and others about products if unsure •If you cannot guarantee an allergy or intolerance free meal notify the consumer, so the consumer can decide for themselves what to do next.	•Only use ingredients listed, do not replace one ingredient with another •Always use clean and sanitised equipment •Know and be confident that an allergen-free product is being produced •Food allergens cannot be destroyed through heating or cooling •Only use ingredients that are labelled, DO NOT MAKE ASSUMPTIONS or GUESS •Avoid cross-contamination by not reusing any equipment for different ingredients

There are a number of processes that you and your food service staff should know and follow to minimise the risk with preparing, displaying, or selling foods that contain known allergens.

Know your product

It is vital that you and your staff know the products that you make and sell as well as their ingredients. The FSS should check product labels of all foods and ingredients used in the business for allergens, including allergens listed by alternative names. All staff should be informed of allergens in products.

All staff should be aware of:

- Checking ingredients in pre-packaged foods, especially products manufactured off-site, for example, commercial mayonnaise.
- Only using labelled ingredients and products. For example, if a bag of dried porcini mushroom and herb risotto mix does not list all the contents, then the product should not be used.
- Any ingredients added to products in-house. For example, peanut butter added to a curry, or sesame oil used in a salad dressing.
- Only using reliable suppliers, and checking-in with them for allergens when products are reformulated or changed.

Communicate with customers

Food handlers **must** tell **any customer** who asks, if food items, they sell contain known allergens. It's also vital food handlers know what to do if they are unsure when asked about allergen content. All food establishments should follow these principles so that staff can make informed decisions:

- Give staff and customers ingredient information (full disclosure) both in written documents and in response to verbal questions.
- If unsure, staff should feel comfortable asking management and others about products.
- Explain to staff that they must tell the customer if they cannot guarantee an allergy free or intolerance free meal.
- Tell all kitchen and service staff an allergen free meal is being prepared.
- Discuss with the customer how you will manage their allergy, they may be able to advise preparation techniques to assist you.

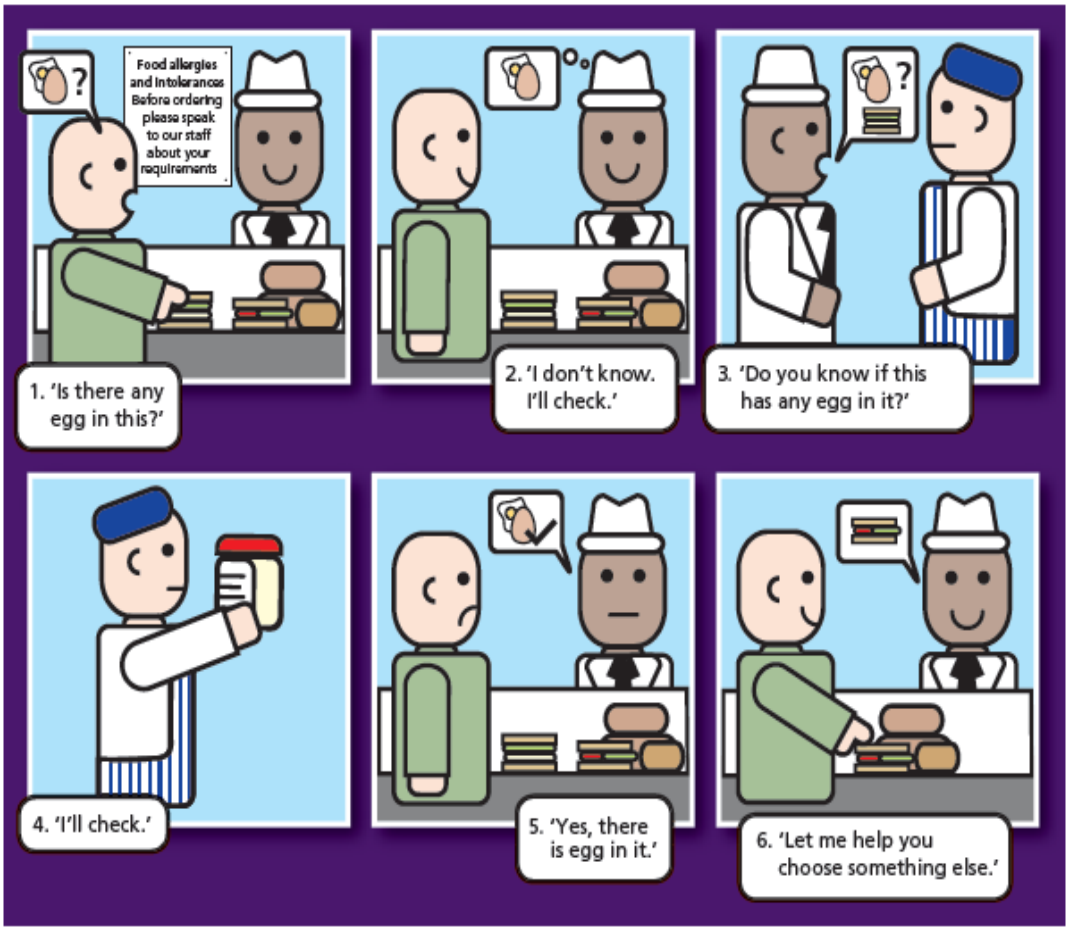
Information about known allergens in food can also be provided by listing them clearly in an obvious place such as:

- menus
- display boards
- information pack

If information is not provided upfront, let your customers know where they can get it, either in writing or verbally.

Ignorance is no excuse

The cartoon below provides example of how to respond to customers if they ask about allergens in food.



Learning activity

How would you respond to the following queries from customers about different allergens? Write your answers on the lines provided below or discuss with colleagues or other students.

1. A customer asks you if the stir-fried beef on your lunch menu contains peanuts or traces of nuts. If you are not sure, what would you say to her? Discuss your response with another student or colleague.

_____

_____

_____

Manage food preparation

When a customer alerts you to a food allergy, you must take steps to minimise the risk of cross-contamination. Everyone who handles food needs to be informed and remain updated about the products they prepare or sell, and the ingredients contained in those products. To assist staff, known allergens must be identified and communicated.
You and your staff should:

- Always document and verbally alert kitchen and wait staff when a customer has ordered an allergen free meal.
- Only use ingredients listed in recipes - do not replace one ingredient with another. For example, do not use sesame seeds instead of poppy seeds, a customer may have chosen the meal and not disclosed an allergy.
- Understand allergen proteins are not destroyed by cooking or cooling processes.
- Try to keep a designated allergen free meal preparation area set aside, and regularly clean and sanitise preparation areas to remove residues - tiny amounts can still cause allergic reactions.
- Always use clean and sanitised utensils when storing, preparing, or serving an allergen free meal.
- When preparing an allergen free meal, make it fresh, and prepare it first. Depending on the type of dish ordered, check with the customer what a suitable alternative might be, for example, laying foil on a grill when cooking a steak to avoid contamination with fish cooked earlier, or using olive oil instead of butter on pasta.
- Avoid cross-contamination by not reusing any equipment for different ingredients. For example, do not reuse a cutting board used for preparing chopped peanuts to prepare vegetables for a salad. All utensils must be thoroughly washed and dried between uses/products.

PEAL – Plain English Allergen Labelling

New rules for labelling the most common allergens in food commenced on 25 February 2021.

The Plain English Allergen Labelling (PEAL) changes to the Food Standards Code will help people find allergen information on food labels more quickly and easily so they can make informed and safe food choices.

The changes include:

- using consistent names that are simple, plain English and in bold font
- displaying declarations in a specific format and location on food labels

Food businesses have 3 years to transition to the new requirements, plus an additional 2 years for food that has been correctly labelled before 25 February 2024.

Learning activity:

Explain how you would minimise the risks associated with the following practices:

a)A wok containing peanut oil is wiped out with a paper towel and then the wok re used

_____
_____
_____
_____
_____

b) A chocolate mud cake, which may contain traces of tree nuts, is displayed on the same tray as a lemon meringue pie.

_____
_____
_____
_____
_____

c)A jar of Thai curry paste does not have ingredients listed on the label.

_____
_____
_____
_____
_____

Training staff

Ongoing training and updating of knowledge in allergen management for staff is a necessary part of any food business. All food handlers need to understand the severity of allergic reactions to foods by some people, and how to deal with any situations that may arise.

All staff should be trained in how to inform customers about known allergens in food and how to deal with situations when they don't know or are unsure about food items they sell.

When training staff in allergen management, you need to ensure they:

- Are aware of the food items and processes involved in preparing products
- Are aware of foods that contain allergenic products.
- Avoid cross contamination by changing gloves and preparing foods following appropriate food hygiene procedures.
- Are comfortable reading ingredients or seeking clarification from management if they are unsure about a product's ingredients.
- Know who to ask, when information is requested by a customer, if the presence of allergens in a food product is unknown.
- Do not serve or sell a product to customers if there is any known risk.
- Communicate to all appropriate staff involved, if they are aware that a customer has an allergy.
- Know to call ooo immediately if a customer has an allergic reaction.

Guidelines

The following guidelines will assist all food handling staff in front and back of house to manage food allergens:

Food Service (front of house):

- Implement a procedure to ensure food service staff know their obligation to declare allergens and other substances in food if a customer asks.
- Implement a procedure for ensuring all staff know how to access information about the food products they are selling, including making staff aware that recipes and ingredients should be reviewed to understand whether they contain allergens (e.g. sauces or cooking oils used in food preparation may contain an allergen ingredient).
- Update information regularly so that staff are correctly informed.

Food Preparation (back of house):
Ensure food preparation staff know and understand these process steps for preparing meals for customers with allergies:

- Only accept correctly labelled foods from the supplier.
- Avoid cross contamination (in the context of allergen control).
- Store food safely in clearly labelled containers.
- Keep surfaces, utensils and hands clean.

While food allergens can cause reactions in some people, informed and well-trained food handling staff will be able to minimise the risks involved when preparing, displaying and selling food products to customers.

Link to image: http://farm5.static.flickr.com/4093/4863621966_7457814350.jpg

Knowledge is empowering and in the case of allergen awareness, it can be lifesaving. Don't risk the lives of others by taking risks.

Use of colour coded equipment for food preparation

As with cleaning equipment colour coded chopping boards, knives and tongs are also commonly used to minimise cross contamination when preparing and serving food.

EGGS

The purpose of this section is to provide skills and knowledge to select, store, handle and prepare eggs and egg products safely.
As a Food Safety Supervisor (FSS), it is your responsibility to ensure that you and your work colleagues/staff always maintain safe food handling practices when using and storing eggs and egg products.
It is also important that you understand what could happen if you do not maintain high levels of food safety awareness and practices, when using or selling eggs and egg products.
Every person who works with food, including those who sell food products, has both a legal and a moral responsibility to protect those who eat the food. This is called a 'duty of care'.
All food handlers and their supervisors need to understand and use preventive measures, rather than trying to fix a problem after it has occurred.

Introduction
Salmonella poisoning is a very real risk when storing and using raw eggs and egg products. Products with raw eggs have been responsible for some of the largest foodborne illness outbreaks. This is because the disease-causing microorganism *Salmonella* may be found on the shell surfaces of whole eggs which then contaminate the food.
It is vital that workers who use, handle, or sell raw eggs and egg products are aware that there are some people in the community who are particularly vulnerable to serious illness (and even death) caused by the consumption of contaminated raw eggs, including children, the elderly and pregnant women.

Key factors in raw egg purchasing, storage and use

There are a number of key factors to be aware of and to understand when working with raw eggs and raw egg products:

1. Look for an alternative to raw eggs in a product that you intend to sell. For example, making a Tiramisu without eggs, or cooking the egg (a sabayon) before adding to the mascarpone. If preparing an aioli, use a commercial mayonnaise product as a base
2. Use a safer alternative to raw eggs such as pasteurised egg products or acidify raw egg products
3. Ensure all acidified egg products (i.e. products that have acid based ingredients such as vinegar e.g. mayonnaise) are at pH 4.2 or below and stored for no longer than 24 hours
4. If it is not possible to substitute raw egg in a product, know your supplier (i.e. only buy from a reputable supplier, keep a copy of supplier documents for your records)
5. Assess all eggs (i.e. do not buy cracked, dirty or unstamped eggs)
6. Practice safe storage of eggs prior to use.
7. Know and understand how to handle eggs and to process raw eggs safely
8. Know the post-process shelf life of products made using raw eggs

Handling eggs and egg products safely

Eggs are the product of female birds (e.g. ducks and chickens). Eggs are formed inside the bird and then laid through the cloaca. The cloaca is also used by birds to expel urine and poo. This means the surface of eggshells can easily become contaminated as they are laid by the bird. This contamination risk means food handlers should always treat eggs like any other raw meat product.

The following practices are essential for the safe handling of raw eggs and egg products:

- Ensure that eggs received are not cracked or dirty and that they are correctly labelled, stamped and supplied in clean packaging
- If eggs delivered to a food business are not correctly labelled, stamped or they are cracked or dirty, the person responsible for receiving goods should refuse to accept the eggs
- Businesses must keep a record of the business name and business address of the supplier of the eggs and/or egg product, and be able to provide it to an authorised officer if asked
- Eggs should be stored under controlled temperature (i.e. in the fridge at 5°C or below) to maintain freshness

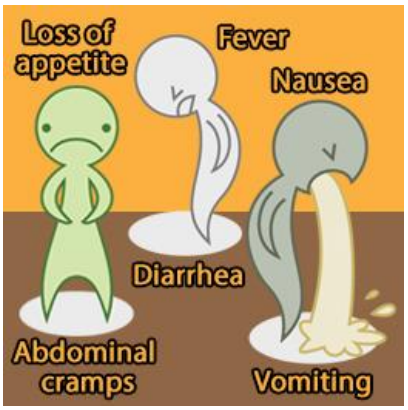
Guidelines for raw egg products

Several food items use raw eggs in their production; however, it is safest not to serve any raw egg products, due to the high risk of food-borne illness. Regardless of whether your business serves raw egg products, it is essential to handle eggs like any other raw meat product during food preparation.
Consider these factors when planning to make, store, or sell raw egg products:

- Use pasteurised egg products instead (i.e. avoid making and serving raw egg products)
- The NSW Food Authority's Guidelines for safe preparation of raw egg products
- Extra processes are required for the safe handling of foods containing raw egg
- Know and understand the safest possible process for handling raw egg products

NOTE: The safest option for a business is to avoid making raw egg products altogether.

The dangers of *Salmonella* poisoning



Salmonella is a family of bacteria commonly found in the environment. It is associated with birds and is usually transmitted to humans by eating undercooked chicken meat and eggs.
Salmonella poisoning is a serious illness that can affect large numbers of people when contaminated foods are consumed. It also has serious implications for those businesses affected and for the food handling staff involved.

High risk products that contain raw eggs

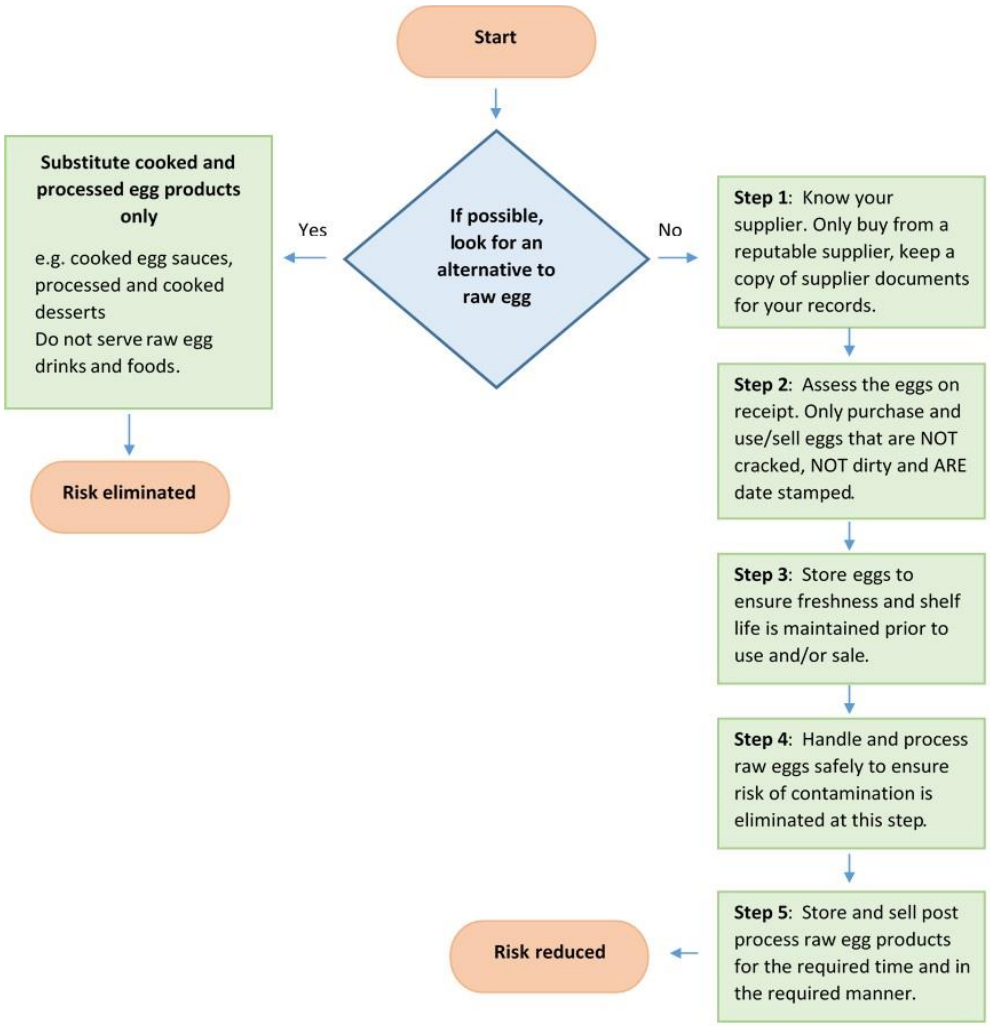
As the previous articles clearly demonstrate, raw eggs are considered to be a very high risk food. Products containing raw eggs have been directly linked to *Salmonella* poisoning.

The highest risk raw egg products are:

- Sauces and spreads made with raw egg – e.g. mayonnaise, garlic aioli
- Desserts made without an effective cook step – e.g. tiramisu, mousse, fried ice cream
- Drinks containing raw egg – e.g. eggnog, egg flip, raw egg high protein shake.

Reducing or eliminating risks associated with raw eggs

The risks associated with raw eggs can be eliminated or reduced by following a series of control steps as outlined in the flowchart below.



An explanation of the requirements for each of the risk reduction steps in the Flowchart is detailed over the page:

Step 1

Check your supplier by following these guidelines:

- Supplier provides contact details – check the details are correct by calling the phone numbers provided, check the address is both real and the business is located at that address, send an email using the address given to verify it is legitimate. If the business is legitimate, they will be happy to both provide information you require and to respond to your contact
- Keep a record of the goods supplied so you are able to trace the product and/or check the supplier if required.

Step 2

Receiving good quality, safe products is a major step in reducing the risk. When you receive and store eggs you should ensure the following practices are followed:

- Only accept clean eggs
- Only accept eggs that are not cracked, broken or leaking
- Only accept eggs that are in clean packaging
- Only accept eggs that are individually stamped with a unique identifier (for traceability purposes)
- Only accept eggs that are within the use by/best before date
- Only accept eggs that are labelled correctly (supplier's name, address, lot identification and date marking).

Step 3

Good storage of eggs is critical to risk management.

Storage requirements and good stock management for eggs and pasteurised eggs products are the same as for all food products:

- Rotate stock to use oldest stock first
- Use eggs within the best before date or egg products within the use by or best before date (whatever is appropriate).
- Store at the required temperature, between 00C and 50C. Storage areas need to be temperature checked using a calibrated thermometer
- If stock is out of date, damaged or has been stored outside of the required temperature, separate the stock from the good stock, label as unfit for use and dispose of the stock as soon as possible
- Do not wash eggs or handle wet eggs.

Link to image: http://www.foodsafety.asn.au/wp-content/uploads/2012/02/NewcrookPoster_A2.pdf

Step 4

Making and selling of raw egg products introduces the opportunity for cross-contamination to occur.

Cross-contamination is the transfer of microorganisms from raw or contaminated food and equipment to cooked or prepared food.

Unclean equipment and food handling are two high risk activities, and the biggest cause of cross contamination.

Good personal hygiene, cleaning and sanitising and good storage practices reduce the risks.

Link to image: http://photos.state.gov/libraries/cyprus/164241/USAID_FoodEng_Oct2010/USAID_Food_Oct2010_07.jpg

The following are all considered good practice:

Good personal hygiene includes (but is not limited to):

- Washing hands using best practice method, before and after handling eggs
- Wearing and changing gloves according to workplace policy and procedures; discard after handling eggs once
- Not working when contaminated, i.e. when you have a contagious illness or food related illness or have an infection that can cause cross-contamination
- Wearing clean clothes and appropriate personal protective equipment (PPE) such as; gloves, hair nets, aprons, etc. as defined by workplace procedures.

Good cleaning and sanitising practice include:

- All food preparation surfaces and utensils must be cleaned and sanitised according to workplace procedures before and after processing egg products
- Use a sanitised egg separator to separate egg yolks from whites. DO NOT use egg shells as shells may contain traces of Salmonella
- Utensils must be in good condition and able to be cleaned and sanitised.

Preparing raw egg products such as mousses, mayonnaise and protein shakes

- Prepare raw egg mixtures and products to meet customer demands i.e. make small batches regularly
- Ensure all acidified egg products (i.e. products that have acid-based ingredients such as vinegar e.g. mayonnaise) are at pH 4.2 or below and stored for no longer than 24 hours. This information must be measured and recorded.
- pH is a measure of acidity of a product.
- Non-acidified product (i.e. products with raw eggs - without vinegar, such as raw egg smoothie) must be prepared as ready-to-eat foods and served immediately.

Steps for measuring pH

The pH of a raw egg product can be measured using a pH meter, pH strips or pH paper, as follows:

1. Once the raw egg product has been prepared, place a small sample (1/4 Cup) in a clean container.
2. Dip the pH paper/strip directly into the raw egg product and compare with the colour chart (for pH meters follow the manufacturer's instructions).
3. Record the pH on the Raw egg product acidification check sheet (see page 13 of the Guidelines)
4. If the pH is more than 4.2, add more vinegar and mix, then take another pH reading.
5. Continue adding vinegar until pH is less than 4.2. If extra vinegar is needed, raw egg recipes should be revised to account for the extra vinegar required.

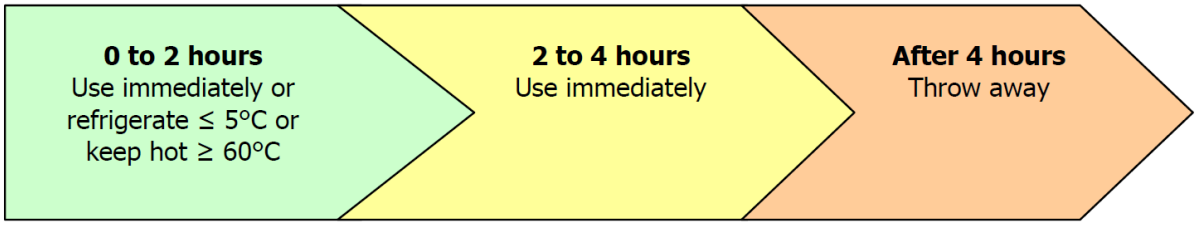
Source: Guidelines for the preparation of raw egg products NSW Food Authority http://www.foodauthority.nsw.gov.au/_Documents/industry/Guidelines_for_Prep_Raw_Egg_Products.pdf

Step 5
Safe storage and handling of product made from raw egg is ensured through effective time and temperature control.

See information at link below:
https://www.foodauthority.nsw.gov.au/sites/default/files/_Documents/retailfactsheets/4_hour_2_hour_rule.pdf
Recording and reporting this information is required to ensure any product made and sold can be traced if required.

Packaged products must be labelled with:
- Product name and all ingredients
- Use-by/best before date must be written clearly and on all packaged products
- Storage requirements for product safety

If any raw product is held above 5°C for any period of time the '4 hour/2 hour rule' applies:
That is, any ready-to-eat potentially hazardous food, if held at temperatures between 5˚C and 60˚C:
- for a total of less than 2 hours, must be refrigerated or used immediately
- for a total of longer than 2 hours but less than 4 hours, must be used immediately; or
- for a total of 4 hours or longer, must be thrown out.



Source: http://www.foodauthority.nsw.gov.au/_Documents/retail/4_hour_2_hour.pdf

This information must be recorded according to workplace procedures.
- Foods which have been contaminated and not safe to eat or sell, must be disposed of as soon as possible so that they do not contaminate other food.

From the information in this Learner Guide you can see that the only guaranteed method of eliminating *Salmonella* poisoning from raw egg products is to substitute with a cooked/pasteurised egg product.

By strictly following the critical steps 1 to 5, you can keep your business, your staff and your consumer's food safe.

Risks to the food handler and the consumer

Contamination of food that causes harmful diseases is a prime concern of the food industry.

REMEMBER: You as the food handler are also at high risk of contracting food poisoning from contaminated food. If you are contaminated without knowing it, you are then putting your customers at risk.

It is your responsibility to keep yourself, your staff/colleagues and consumers safe by practising food safety skills in the selection, storage, handling and processing of raw eggs and egg products.

It is also vital that good hygiene is practised by all staff, to reduce the risk of contamination for themselves and for the consumer.

Food Safety Programs (FSP)

A food safety program is a written document that sets out how a food business will control the food safety hazards associated with the food handling activities of the business.
The FSP is a comprehensive document setting out all the processes all staff must follow to minimise risk to customers.
Staff who are trained in food handling and who follow the processes set out in the FSP are less likely to cause food poisoning.

What businesses need to have a FSP?

Only certain high risk food businesses are required to have food safety programs:

> **Standard 3.2.1 – Food Safety Programs**
>
> Businesses that serve or process potentially hazardous food for service to vulnerable people are required to comply with Standard 3.2.1, in accordance with Standard 3.3.1 - Food Safety Programs for Food Service to Vulnerable Persons.
> *This includes businesses providing food to hospital patients, aged care residents and children in child care centres. It will also normally apply to delivered meal organisations, that is, organisations that prepare food for delivery to vulnerable people.*
> Seafood businesses that engage in the primary production or processing of, or manufacturing activities concerning, bivalve molluscs must implement a documented food safety management system that effectively controls the hazards.
> Businesses producing manufactured and fermented meats.
>
> Source: http://www.foodstandards.gov.au/industry/safetystandards/programs/pages/default.aspx

However, food businesses may be required to have a food safety program under State or Territory law and per Food Safety Standard 3.2.1 a food business must:

a) Systematically examine all of its food handling operations in order to identify the potential hazards that may reasonably be expected to occur
b) If one or more hazards are identified in accordance with (a), develop and implement a food safety program to control the hazards
c) Set out the food safety program in a written document
d) Comply with the food safety program
e) Conduct a review of the food safety program at least annually

What is in a Food Safety Program (FSP)?

The template below, provided by the NSW Department of Primary Industries clearly shows what should be included within a FSP.
Where a FSP is not required, many hospitality / food businesses will apply, and document use of the Seven (7) Principles of HACCP and support programs to provide evidence of legal compliance in a Food Safety Manual.
It is important you know where to access the FSP or Food Safety Manual in your workplace.

Example of a Food Safety Program

INTRODUCTION
HACCP PLAN

2.1 HACCP Team
2.2 Scope
2.3 Product Description and Intended Use
2.4 Process Flow Chart
2.5 Hazard Analysis
2.6 Hazard Audit Table
2.6.1 Justification Table
2.6.2 Verification Table

SUPPORT PROGRAMS

3.1 Maintenance Program
3.2 Approved Supplier Program
3.3 Good Food Handling Practices
3.4 Cleaning and Sanitation Program
3.5 Pest Control Program
3.6 Personal Hygiene Program
3.7 Product Recall Program
3.8 Staff Training Program
3.9 Calibration Program
3.10 Internal Audit
3.11 Document and Data Control Program

APPENDICES

Form 1 Monthly Maintenance Checklist
Form 2 Temperature Monitoring Sheet
Form 3a Supplier Approval Letter
Form 3b Supplier Approval Application
Form 4 Approved Supplier List
Form 5 Product Receival Sheet
Form 6 Product Monitoring Sheet
Form 7 Product Despatch
Form 8 Pre-operational Checklist
Form 9 Staff Training Matrix
Form 10 Internal Audit Checklist
Form 11 Product testing Schedule

Source: http://www.foodauthority.nsw.gov.au/search/resources-alpha

We will now take time to understand how use of the 7 principles of HACCP helps hospitality businesses to control and monitor food hazards, following which we will learn more about the support programs required to ensure food safety and hygiene standards are met.

Food Safety - HACCP

We have already identified that food safety hazards need to be controlled if we are to provide safe food for our customers to eat.

HACCP is a systematic preventative approach to food safety used by many food businesses. HACCP based food safety plans are used by a business to analyse potential hazards at each step of the food production pathway below and put in controls manage the potential food safety risks identified.

Once potential hazards are identified, the risk of the hazard can be rated by determining their severity and likelihood of occurrence.

By rating the risk, **critical control points** – points in the preparation of food that must be controlled to either eliminate or reduce the hazard to an acceptable level, can be identified and **critical limits to** ensure safety of the product, incorporated into the operating procedures of a business.

By adopting these principles into the operating procedures and / or food safety plan, a business can demonstrate compliance with the mandatory food safety standard Food Safety Practices and General Requirements 3.2.2:

Food Safety Practices and General Requirements 3.2.2.

- This standard sets out specific food handling controls related to the receipt, storage, processing, display, packaging, transportation, disposal and recall of food. Other requirements relate to the skills and knowledge of food handlers and their supervisors, the health and hygiene of food handlers and the cleaning and maintenance of food premises and equipment.

The 7 principles of HACCP:

1. Hazard Analysis	Hazards are any biological, chemical or physical property which could cause a food safety problem. Hazards can occur at any part of the food production pathway. Hazard analysis involves identifying and assessing the seriousness and likelihood of the hazard occurring.
2. Critical Control Point	A point, step or procedure at which control can be applied so the hazard can be prevented or reduced to an acceptable level.
3. Critical Limits	The conditions or limits set to ensure the safety of the product. For example, storage and cooking temperatures to minimise bacterial growth
4. Monitoring and Sampling	The systems and procedures used in food production must be monitored to make sure they are being followed. Samples are taken at each step so they can be tested to see whether critical limits have been breached.
5. Corrective Action	If the monitoring and sampling indicates a problem corrective action is the action to be implemented to remove the hazard. Processes and procedures must then be adjusted to prevent this happening again.
6. Record keeping	All testing and monitoring and verification must be recorded, and those records must be stored. This is so that you can prove that your procedures meet the requirements.
7. Verification	All businesses must make sure that they HACCP procedures are working correctly. There is a variety of procedures that can be followed to verify the accuracy of the HACCP program.

HACCP and You

As a food handler, we have already identified that you have an important role in identifying and reporting poor food hygiene practices and food hazards.

HACCP may allow a business to identify critical control points and set critical limits – but a critical control point itself does not implement the control. It's the **action** which is taken at this point that controls the hazard. So, without the team following these guidelines, using their knowledge of critical limits and identifying and acting on potential hazards, our customers remain at risk of food poisoning.

Similarly, step 6 requires 'all testing and monitoring and verification must be recorded, and those records must be stored' This is so that you can prove that your procedures meet the requirements, however if records are not completed consistently there is no evidence of control or compliance.
Your role is therefore critical – and the following information will help you develop your knowledge and skills so that you can be more effective in fulfilling this aspect of your current or future job roles.

Controlling food hazards at critical control points

Critical Control Points (CCP's)

A critical control point is practise or procedure at which control can be applied during the food production pathway, so that a hazard can be prevented or reduced to an acceptable level.

Critical Limits

Critical limits are the conditions or limits set to ensure safety of the product. For example, storage and cooking temperatures to minimise bacterial growth
An organisation's food safety procedures will clearly identify the critical limits to be applied to keep food safe at CCP's identified in the food production pathway.

To grow bacteria (micro-organisms) requires;
- Moisture
- Food
- The Right Temperature
- Time &
- Oxygen

Control of temperature and time

Control of temperature and time when storing preparing, cooking, cooling foods and displaying foods are the most effective methods to contral bacterial growth.

Using a Thermometer

To correctly determine the temperature of a food item, a thermometer with a probe must be used.

Note: The surface temperature is often different to the internal temperature so readings should be taken from at least 2 parts of an item to ensure the entire product is at the required temperature.

The probe thermometer must be accurate within 1°C
To test for accuracy, place the thermometer in a bowl of barely melted ice it should read +/- 1°C.

- The thermometer are calibrated by the maintenance department or contractor and checked for accuracy daily. These checks are recorded in Red Book.
- Probes must be cleaned and sanitised before and after each use to prevent cross contamination:
  - Wipe away visible food waste
  - Wash probe in warm water and detergent
  - Sanitise by wiping with alcoholic swab or hot water (77 °C or above)
  - Air dry

An example of a calibration test record can be seen in the appendix.

If the probe does not turn on, has a flickering display or will not calibrate correctly the probe will be required to be discarded and reported to your supervisor and replaced with a new probe.

Temperature Control

Bacteria thrive in a warm environment. When the temperature of food is between
5°C to 60°C bacteria can multiply rapidly and reach dangerous levels.

This temperature range is referred to as the **DANGER ZONE.**

High risk foods left in the danger zone are potentially lethal.

It is vitally important to minimise the time food spends in the danger zone at all stages of the food production pathway.

Follow the 2/4 Hour Rule

The 2/4-hour rule explains how long potentially hazardous foods can be kept safely at temperatures within the 'Temperature Danger Zone'.

If a potentially hazardous food has been held within the temperature danger zone:

For less than 2 hours – REFRIGERATE OR USE IMMEDIATELY
Between 2 hours and 4 hours – USE IMMEDIATELY
For more than 4 hours – THROW OUT

Food processing records should be maintained of what time the food was first out of temperature control and therefore, when the food can be re-refrigerated, used immediately or discarded. Keeping records is also necessary to demonstrate to the Environmental Health Officer that the foods are being kept within the allowed time limits. An example of a food processing record is provided in the appendix.

Receiving deliveries

By accepting food not which is not delivered at the correct temperature we are putting our customers at risk and placing a food hazard directly into our storage areas.
Acceptable limits for food deliveries are as follows:

Chilled and potentially hazardous food: **Below 5⁰C**
Frozen foods: **Minus 18⁰C or colder and Frozen solid**

Chilled and frozen foods must be moved promptly to the correct storage area to minimise potential of temperature increases and /or defrosting. Within some organisations the operating procedure for storage of chilled and frozen good is to store **within 10 minutes**.

Records should be maintained per organisation procedures to demonstrate to the Environmental Health Officer that the foods received are within the required temperature range and the corrective action taken when this has not occurred – e.g. refusal of a delivery.

Additional hazards to check for when receiving goods are:

- Broken packaging
- This poses a risk of physical and cross contamination
- Expired use by dates and best before dates
- This poses a risk of microbiological contamination

Did you know?

Use by dates: This is the date after which food should not be consumed. After this date food may be unsafe to eat even if it looks fine because the nutrients in the food may become unstable or a build-up of bacteria may occur. It is illegal to sell foods after their use-by-date has expired
Best before dates: Up to this date the food will be retain the quality that has been marketed. If stored correctly, and not perished, deteriorated or damaged, it may be consumed after this date but may not be of the quality promised.

An example of a goods received record is provided in the appendix.

Storing Food Safely

According to the Food Safety Standard 3.2.2 – Food safety practices:

Food Safety Standard 3.2.2 – Food Safety Practices
A food business must, when storing food, do so in such a way that:

a) It is protected from the likelihood of contamination

b) The environmental conditions under which it is stored will not adversely affect the safety and suitability of the food

A food business must, when storing potentially hazardous food:

a) Store it under temperature control; and

b) If it is food that is intended to be stored frozen, ensure that the food remains

To store food safely to minimise the risk of contamination and maximise freshness, quality and appearance:

- Select the food storage conditions for each specific food type such as temperature, light, humidity
- Store at the correct temperature
- Rotate stock (FIFO)
- Use clean, sanitised storage container that is made of material appropriate for food storage e.g. Food grade plastic
- Check use by dates, best before dates and general condition of stock
- Correctly separated food – including separation of:
  - Cooked and uncooked food items
  - Different types of fish, e.g. fresh and saltwater fish or molluscs
  - Washed and unwashed food items

Guide to critical limits for storage temperatures

	FROZEN GOODS -18°C to -24°C (Frozen solid)		FRESH FRUIT & VEGETABLES 6°C to 8°C
	FRESH SEAFOOD | SHELLFISH | FINFISH 0°C to 2°C		FRESH DAIRY 2°C to 4°C
	FRESH POULTRY 1°C to 4°C		FRESH JUICES 1°C to 4°C
	FRESH MEAT 1°C to 4°C		DRY GOODS 14°C to 20°C

–

Storage temperatures must be monitored and recorded. Cool rooms and freezers should have an external thermometer that displays the internal temperature of the storage area and are fitted with an alarm that alerts the team to any problems, such as a power outage, or when the temperature has been outside the allowable range for an extended period. An example of a Chiller/Freezer temperature record is provided in the appendix.
Corrective actions must be recorded should a chilled storage area not be operating at the correct temperature or potential contamination of food occurs due to poor storage practices.

Preparing food safely – controlling and eliminating hazards

While preparing food, it is important to follow the strict rules governing how food should be thawed, cooked, cooled and reheated to minimise the risk of bacterial growth. The frequency of monitoring should be as set out in your workplace's operating procedures and records completed as required.

Critical controls for defrosting (thawing) food
When defrosting food, the time spent in the danger zone must be minimised. The safest method is to defrost food in the cool room or fridge. Place the items on trays and on a low shelf so that any drips or juices do not contaminate other items.

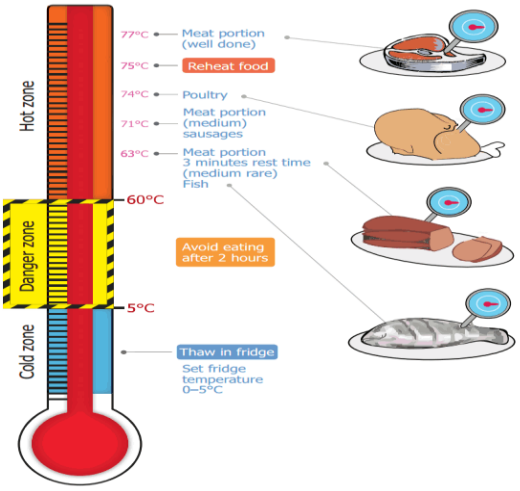
Never thaw food under running hot water or by leaving out on the bench.

Critical controls for cooking food

Different meats require different cooking temperatures to destroy harmful bacteria as shown opposite.

(Source: NSW Food Authority 2017)

http://www.foodauthority.nsw.gov.au/foodsafetyandyou/food-at-home/cooking-temperatures



The operating procedures of your workplace must always be followed when cooking food, and all food should be cooked thoroughly.

Critical controls for cooling food

The cooling of cooked foods must take place within the following time frame to minimise bacterial growth and records kept to demonstrate compliance.

Step 1: Cool from 60°C to 21°C (internal temp) within 2 hours Step 2: Cool from 21°C to 5°C (internal temp) within 4 hours

Cool items in shallow trays on shelves within the fridge, to allow air circulation. Alternatively, items may be quickly chilled using a blast chillier or freezer.

Critical controls for reheating and displaying food

To kill all bacteria that may cause food poisoning, hot food must be displayed and reheated as follows:

Displaying hot food: The core temperature to be 60°C or more Reheating food: Reheat rapidly to at least 70°C and hold it at that temperature or hotter for at least 2 minutes

Remember: If you let the food remain in the danger zone microorganisms that have been dormant will quickly begin to multiply, and the higher the chance of poisoning your customers.

Critical controls for delivery & transport of food

Specific organisational procedures will be in place relating to the packaging and transportation of food to ensure that products served are safe and temperature maintained.

Operating procedures will specify the packaging required for each food type, hold times and temperature control required.

Where food is served from a servery or display additional methods to ensure food safety and minimisation of cross contamination should be put in place, such as:

- Use of protective barriers between the food and customers such as glass cabinets / domes
- Provision of serving utensils for each dish
- Temperature control of display cabinets (chilled and hot e.g. Bain Marie)
- Regular supervision of food displays.

Within some organisations procedures relating to the following must be followed:

- Packaging standards and hold times on the Chute
- Transportation of supplies from other stores.

Additional food safety monitoring techniques

As discussed, monitoring and recording of food temperatures is critical to the preparation and delivery of safe food to customers.

Other methods to ensure the safety of food served to customers may include:

- Monitoring food storage (rotation / dates)
- Monitoring the temperature of storage and display equipment
- Sampling e.g. freezing a sample of food served to large parties such as wedding guests
- Use of swabbing to investigate foodborne illness outbreaks, to verify cleaning and sanitation
- standards and validate allergens have been removed after cleaning in food processing
- Use of chemical testing to identify the presence of allergens, additives and preservatives and nutritional composition of food as required by the Food Standards Code
- Visual inspection e.g. for mould / use by dates etc.

Corrective Action

When monitoring shows that food hazards are not controlled, corrective action needs to be taken **immediately** to eliminate or minimise risk.
Corrective action is not just the responsibility of managers. We are all the eyes and ears of the business and have a responsibility to minimise risk to each other and our customers.
Good corrective action removes the risk immediately. For example, if the mobile freezer breaks down during service should your first action be:

a. Check temperature of stock and if within critical limit remove stock to main freezer ***or***

b. Log a maintenance report?

The answer is (a), as this action immediately addresses the potential hazard. Then (b) can be submitted.

Examples of corrective action you may take within the scope of your job responsibility are:

- Rejecting deliveries that are outside of critical limits
- Discarding uncooked food
- Discarding food that has expired
- Discarding food that has been contaminated e.g. through a colleague not washing hands or sneezing
- Immediately reporting issues with refrigeration and freezers
- Acting when food is incorrectly stored e.g. not rotated or not labelled
- Reporting pest sightings

ALL potential food hazards should be reported to a manager and or food safety supervisor and all corrective actions recorded to show how the risk was managed in the workplace.

Safely disposing of food

Corrective action at all stages of the food production pathway may require the disposal of potentially harmful food.
This could be food that is:

- Recalled by the supplier
- Returned by a customer because it is not cooked
- Received, stored or cooked outside of the acceptable temperature range
- Out of date, expired or mouldy

Potentially harmful food waste must not be a direct or indirect source of contamination e.g. touching surfaces on which food is prepared or stored, or disposed of incorrectly, attracting pests.

Guidance

- Remove the food waste as quickly as possible to waste disposal area
- Place in designated lidded bin
- Follow product recall procedures (see support programs)
- Discard gloves after handling food waste and wash hands

Record keeping requirements

Records should be maintained per organisation procedures to demonstrate to the Environmental Health Officer that the foods are being received, stored, thawed, cooked, cooled, thawed and reheated within the allowed time limits and temperature ranges. Records of corrective actions when potential hazards occur are equally important as this shows that a business has been diligent in its responsibility to prepare and serve safe food.

Within some organisation they use computerised systems which provide a live monitoring system to show compliance with record keeping requirements. It is therefore important that all food safety monitoring processes are completed on time, and corrective actions and temperatures accurately recorded.
The SATO labeller is also used to label stock providing a record of 'pull', 'thaw, 'cool' 'use' and 'discard' times. All prepared food must be labelled per organisational procedures.

Verification

All businesses must make sure that they HACCP procedures are working correctly.
Internal audits or inspections provide an opportunity to review the food safety and hygiene practices of a business. They provide valuable feedback as to whether the procedures and practices used at the business are being controlled adequately, and supporting records are completed in full, accurately and consistently.
Conducting inspections is normally a role of the Food Safety Supervisor and where non-compliant practices are identified. high risk food not being stored within the correct temperature range; corrective actions must be documented and closed out.
External visit by the local EHO are conducted at every store as discussed earlier.

Your responsibility?

Co-operate and participate in inspections in accordance with your job role and work with the team to ensure recitfy non -compliances.

Summary of a food handler's responsibilities

In summary, a food handler's responsibility is to:

- Access and use information from the FSP or documented Food Safety Manual
- Follow policy and procedures
- Control food hazards at critical points
- Identify and promptly report food hazards that are not controlled
- Report non-compliant practices
- Take immediate corrective action within the scope of your job role
- Complete food safety monitoring processes and maintain food safety records as required.

Support programs

Support programs are used to set out policy and procedures to support the planning and production of safe food for our customers.

Maintenance program

This sets out a rolling maintenance program and reporting procedures when unexpected maintenance issues occur.

Your responsibility? In some job roles, you may be required to participate in the ongoing maintenance of equipment used daily, for example by stripping it down and cleaning it per the schedule, or by replacing small parts such as rubber seals and ink cartridges. It is always important to log when these jobs have been completed.
On identifying maintenance required, for example a frayed electrical cord, wobbly chair leg or broken tap; minimise the risk by removing the item from use and report immediately per organisations procedures e.g. by informing a manager and completing a maintenance request.

Approved supplier program

Approved suppliers are 'safe' suppliers. Their preparation and production processes have been proven to be legislatively compliant and they enter a formal agreement with a business to provide the quality of product required.
Buying from approved suppliers minimises the risk of poor quality and potentially hazardous food being received.
Procedures for petty cash purchases in emergencies may also be included within this section.

Your responsibility? Only use good ppurchased from approved suppliers, and if petty cash purchases are required or stock is transferred from another store, follow company procedures.

Good food handling practices and personal hygiene

This section sets out the personal hygiene requirements for food handlers, illness and injury policy, clothing and jewellery policy, eating smoking and drinking rules and basic good food handling procedures.

Your responsibility? In all job roles, consitiently demonstarte personal hygiene standards documented, follow food handling procedures and report illness and injuries immediatley.

Pest control program

Evidence of pests is a very common reason for EHO's to issue fines.
The focus of a pest control program is to:

1. Deny access
- Keep all doors and windows covered with fly scree
- Control flies in the kitchen and food preparation area
- Keep garbage bins covered

2. Deny Food
- Keep garbage storage areas clean
- Do not allow other rubbish such as cartons, cans, bottles or old equipment to lie around and build up
- Have no uncovered drains
- Do not leave food lying around the kitchen at night
- Keep all food storage areas spotlessly clean

3. Look
- Look for droppings and evidence of pests such as nibbled packets in dry stores

4. Control
- Have a reliable pest control company conduct a regular pest control and
- Maintain records of pest sightings and visits.
- DO NOT use regular fly sprays in food preparation or food service areas as the spray droplets contain a chemical that will contaminate food.

Your responsibility? In all job roles report sighting of or evidence of pests and keep work areas spotlessly clean.

Product recall program

On occasions, products are recalled due to food hygiene issues. Recall notices may be issued by a wholesaler, manufacturer, distributor, local authority or FSANZ.
It is important that recall instructions are actioned immediately, and products are products are segregated and clearly labelled "DO NOT USE' while awaiting collection.
Recalled product ARE NOT SAFE.

Your responsibility? If purchasing is part of your job role you may be directly responsible for actioning recall notifications. If ever asked to remove food items from sale or from storage due to a recall, do so immediately and follow the instructions of your manager.

Staff Training

Policies and procedures for staff training are documented in this section. This includes training at all levels of the business.
All staff must be trained to enable them to perform their job safely and competently and as a minimum requirement they should receive training in relation to personal hygiene standards, food handling procedures, cleaning and sanitation.

Your responsibility? To complete the training required for your job role, and, if training others, record the training delivered.

Calibration Program

All equipment used at the premises must be calibrated and maintained in working order, e.g. Hand held thermometers and temperature gauges on cool rooms / freezers. The calibration program sets out the procedure and frequency of calibration for all equipment. All tests must be recorded.

Your responsibility? If you do not think a thermometer is working properly do a calibration test and report the outcome to a manager. Temperature records are worthless if incorrect.

Internal Audit Program

Within many organisations, internal audits by the Manager a are an important internal audit tool used to verify compliance with Food Safety legislation.

Your responsibility? Co-operate and participate in inspections in accordance with your job role and work with the team to ensure recitfy non -compliances.

Document and Data Control

A FSP is constantly reviewed. New suppliers are added to supplier lists and new menus may require new food hygiene /safety procedures. It is therefore important to make sure all parties are accessing up to date information and using the latest version of records.

Your responsibility? Always make sure you are accessing the latest version or workplace information and records required in relation to your job role.

Cleaning and Sanitation Program

This section documents the policies and procedures relating to cleaning and sanitising premises and equipment. Cleaning and sanitising is critical to the food safety process.
All employees in the food industry need to be aware of their responsibility to maintain hygienic work premises and follow the documented cleaning schedule. (refer to the following section for detailed information).

Cleaning and Sanitising

The purpose of this section of the Learner Guide is to refresh your knowledge and to maintain your skills in safe workplace cleaning and sanitising practices. While something may look clean, it may not necessarily be clean to level required for food safety, or safe to use.
Good workplace hygiene demands effective, frequent and regular cleaning and sanitising of premises and equipment. This is necessary to remove food residues and dirt which may contain food poisoning and spoilage causing microorganisms. Dirty premises and equipment also act as a source of contamination.
Dirty food businesses also increase the risks associated with pests such as flies, moths and mice which are another source of health risks in food.
Both Food Safety Supervisors (FSS) and food handlers have a responsibility to ensure that food storage and preparation areas, equipment and surfaces are regularly and effectively cleaned and maintained.

Introduction

Most people in the food industry think that cleaning and sanitising is simply common-sense. They try to do the right thing and do not set out to risk the safety of customers by cutting corners or by not keeping premises and equipment clean.
While you work in the food industry, you must consider a few important issues to manage effective workplace hygiene and cleanliness. Safe food storage and preparation is not just about the food that you and your colleagues handle and sell. It is based on rigorous and regular cleaning and sanitation practices.

Key factors in cleaning and sanitising

Cleaning and sanitising is considered to be the most important food safety process. As a worker in the food industry, it is important that you are aware of your responsibility to maintain hygienic work premises.
It is necessary that you:

1. Have a good understanding of the difference between cleaning and sanitising and that you put this knowledge into practice at all times.
2. Understand the importance of purchasing appropriate cleaning and sanitising products for use in kitchens, even if you are not directly responsible for ordering these products.
3. Understand the importance of following manufacturer's instructions for the use of cleaning and sanitising products and that you do not mix chemicals and cleaning products.
4. Are aware of the dangers associated with cutting corners on cleaning and sanitising procedures (i.e. do not dilute products below concentrations recommended by the manufacturer; allow enough contact time of products with food preparation surfaces to ensure appropriate effect).
5. Understand that cutting corners may increase the potential for food poisoning microorganisms to grow in the food premises, increasing the risk of food poisoning
6. Know how to clean and sanitise effectively in a retail food service environment
7. Use simple visual checks to examine the effectiveness of cleaning and sanitation practices (e.g. equipment should be visually clean and shiny following washing and sanitising. Food display cabinets should not have food scraps or dirt stuck on shelves or in corners)

Link to image:
http://www.google.com.au/imgres?imgurl=http://www.elitekitchenexhaust.com/media/photoLG_02.jpg&imgrefurl=http://www.elitekitchenexhaust.com/gallery.html&h=368&w=593&tbnid=PhklonAwZBYOnM:&zoom=1&docid=Lcx37JCIBXPO2M&ei=KgiRVYPsLcHZmAXkzIDACw&tbm=isch&ved=0CCQQMygJMAk

Good personal hygiene

Effective cleaning and sanitising starts with good personal hygiene.

Wiping down a bench with a cloth that has been in contact with your unwashed hands after blowing your nose, sneezing or coughing will only increase the risk of contaminating the surface. It is of little value to wipe benches with a cloth that has come into contact with your unwashed hands, after blowing your nose. The effectiveness of chemicals and sanitisers will be reduced significantly if you do not practice good hand washing techniques.

Link to image: http://www.food.gov.uk/sites/default/files/multimedia/pdfs/publication/sfbb-workingwithfd-0513.pdf

Learning Activity:
Remind yourself about the importance of effective hand washing by viewing the YouTube link below:
Food safety coaching (Part 1): *Hand washing*
https://www.youtube.com/watch?v=cCpr11OuYKI
After watching the video on hand washing – list 3 important points to remember when washing your hands.

1. _____
2. _____
3. _____

What is cleaning and sanitising?

Cleaning and sanitising is a critical process for ensuring the safety of the consumer and your employees.

Cleaning and sanitising is a two-step process as identified in the following pages:

Link to image:
http://www.ewatersystems.com/wp-content/uploads/2015/01/regis-e1421741074122.jpg

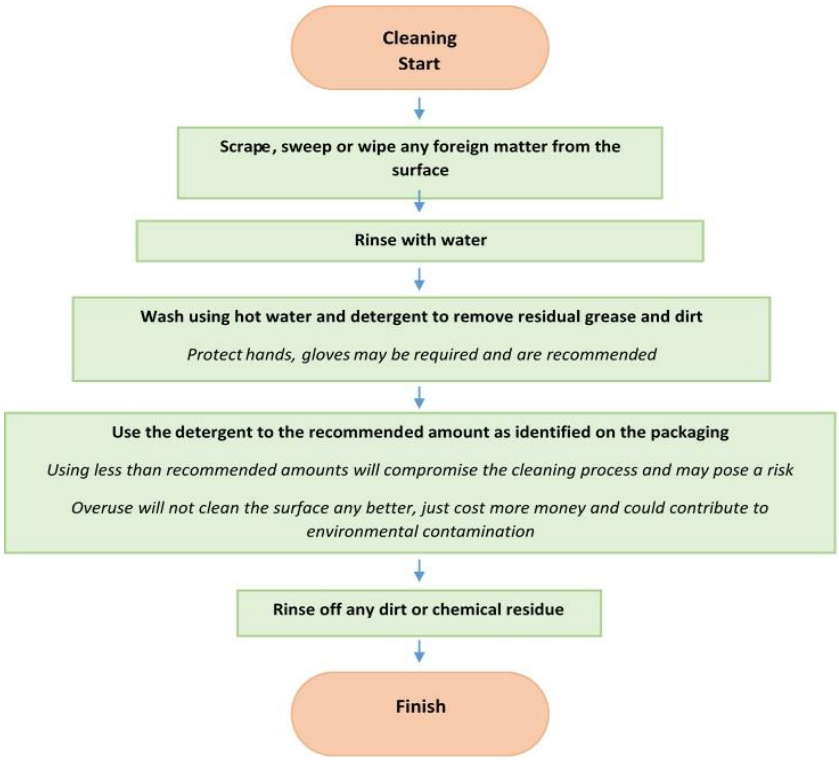
Part 1

Cleaning is the process of removing all food residues, dirt, grease and other visual matter and odours from all fixtures, fittings and equipment.

There are six steps for effective cleaning and sanitising. The first three focus on cleaning:

1. Pre-clean: scrape or wipe food scraps and other matter off surfaces and rinse with water.
2. Wash: use hot water and detergent to remove grease and food residue. (Soak if needed.)
3. Rinse: rinse off detergent and any loosened residue.

Remember to 'Clean as you go' and to always follow the steps in the Flowchart below for effective cleaning.



Part 2

Sanitising is the process of reducing the number of bacteria and other organisms to a safe level. The process can be either through applying heat and/or chemicals. Sanitising is required for all food contact surfaces and eating utensils.

Steps 4 to 6 for effective cleaning and sanitising deal with minimising the number of bacteria:

4. Sanitise: use a sanitiser to destroy remaining microorganisms (as per manufacturer's instructions)
    a. Allow the appropriate contact time for the sanitiser to work (as per manufacturers' instructions)
5. Final rinse: wash off the sanitiser if necessary (as per manufacturers' instructions).
6. Allow utensils, crockery and benches to air dry or use single use towels.

The two types of sanitisers are:

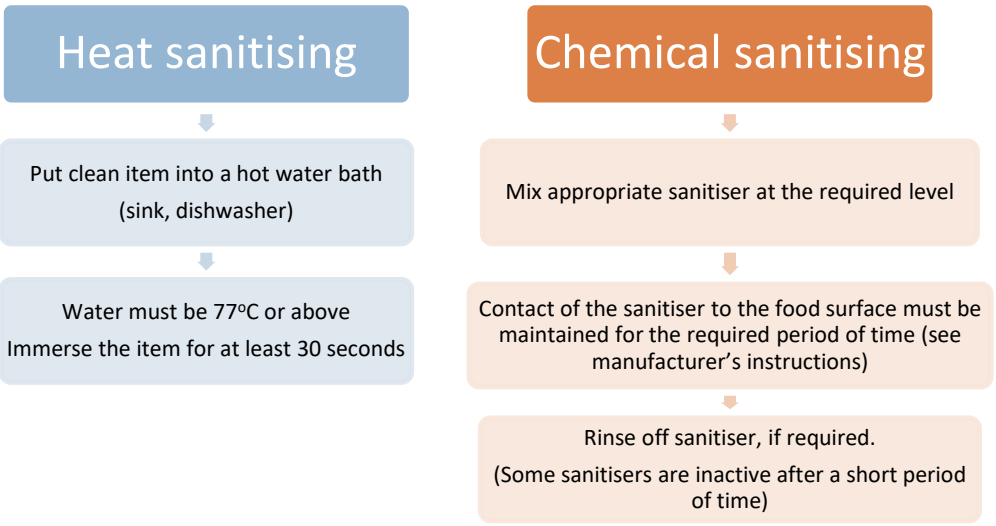
1. Heat – using hot water (usually a dishwasher). The higher the temperature the shorter the contact time required.
2. Chemicals – to be effective, you need to have the correct concentration, temperature and contact time.

It is important to understand that if preparation benches, surfaces and equipment are only physically cleaned (wiped down), bacteria will live and multiply. Wiping a surface evenly distributes the bacteria over it.

Sanitising is only effective on clean surfaces. Sanitising works best on surfaces free from dirt, grease and food particles.

The sanitising process will not kill all bacteria, but it will reduce the number to a safe level, by public health standards.

The chart below provides details about how to use heat (hot water) and chemicals to sanitise equipment and surfaces.



Cleaning and sanitising is only effective if used and applied appropriately. Dry the surface after sanitising, water left on a surface provides ideal conditions for bacterial growth.

Using sanitisers effectively

Sanitisers appropriate for use in food preparation areas must be purchased and used according to manufacturer's instructions to ensure that:

- The risk of chemical contamination is removed
- The chemical is suitable for contact with food, meaning it will not leave chemical residue after use e.g. methylated spirits is NOT to be used for this reason
- The sanitiser is effective when used at the recommended concentration e.g. vinegar is ineffective as it is a weak acid that will NOT reduce the number of bacteria to a safe level
- Bleach is effective but MUST be used in the correct water temperature for the level of chlorine and concentration. Bleach must be prepared daily to ensure the solution remains effective.

Table 1: Using bleach as a sanitiser

How much water?	How much bleach?					
	Household (4% chlorine)		Strong domestic (6% chlorine)		Commercial (10% chlorine)	
Concentration required (ppm)	50 ppm	100 ppm	50 ppm	100 ppm	50 ppm	100 ppm
Water temp	Warm	Cold	Warm	Cold	Warm	Cold
1 litre	1.25 ml	2.5 ml	0.85 ml	1.7 ml	0.5 ml	1 ml
10 litres	12.5 ml	25 ml	8.5 ml	17 ml	5 ml	10 ml
50 litres	62.5 ml	125 ml	42.5 ml	85 ml	25 ml	50 ml

Source: Cleaning and sanitising in food businesses, NSW Food Authority
https://www.foodauthority.nsw.gov.au/sites/default/files/_Documents/industry/cleaning_sanitising_food_businesses.pdf
https://www.cityofsydney.nsw.gov.au/__data/assets/pdf_file/0011/108398/ISCRFG-CleaningSanitising.pdf

ALWAYS USE SANITISER ACCORDING TO MANUFACTURER'S INSTRUCTIONS
Examples of effective cleaning and sanitising practices include:

1. Using a dishwasher on the hottest washing settings

- NOTE: all the recommended steps must still be followed:
  - → Remove waste
  - → Clean cycle using appropriate dishwasher chemical
  - → Operating using the hottest rinse cycle available (washing using the economy cycle on a domestic dishwasher is not adequate)
  - → Leave to dry.
  - → A visual check should be done of equipment and utensils when removed from the dishwasher to ensure they are clean.
  - → Dishwasher should be regularly maintained and serviced according to manufacturer's instructions

2. Food preparation surfaces and equipment (benches, mixers, utensils)
   - → Wipe down
   - → Wash with hot soapy water
   - → Rinse to remove cleaning chemical and any extra food waste
   - → Wipe down with sanitiser e.g. Commercial bleach (10% chlorine) – 1 ml in 1 L cold water for 7 seconds.

Dishwashers and cleaning and sanitising

Food businesses will often use dishwashers to clean plates, cutlery and glassware.
The Food Standards Code does not provide guidelines or regulations around the use of dishwashers, so you should ensure the cleaning and sanitising process is sufficiently robust to meet the guidelines elsewhere in this module.

Dishwashers typically use heat to sanitise the items they clean. Domestic dishwashers generally use lower rinse temperatures than commercial dishwashers but use a longer heat cycle to compensate for these lower temperatures. Commercial dishwashers will have a specific sanitising setting. This setting is designed to spray water over 800C until the temperature of the items being cleaned achieve a sanitising temperature (the exact temperature might be 710C for United States standards or 800C for European standards). Some dishwashers may also have a chemical sanitiser step in their wash cycle. It is important to follow the manufacturer's instructions on what an appropriate sanitiser is and follow the sanitiser instructions when adding to the dishwasher.

The hottest and longest dishwasher program is recommended (e.g. 'hygienic wash' or equivalent heavy-duty, high-intensity settings). This is because lighter or shorter settings may not reach a hot enough temperature for long enough to sufficiently reduce microorganism levels.

If your business uses a dishwasher, you should find out what the sanitising process is within the dishwasher's program, so you know whether to add your own sanitiser steps.
If your dishwasher does not reach a high enough temperature for long enough, you should ensure there is still a sanitising step such as a very high temperature (over 770C for at least 30 seconds) water bath or applying a chemical sanitiser and rinse.

Domestic dishwashers are not typically suitable for most commercial retail/hospitality food businesses.

Maintaining effective cleaning and sanitising

To maintain effective cleaning and sanitising of premises, it is important to have a written schedule that defines all surfaces, equipment and utensils and how they are to be cleaned.

The cleaning schedule should include:
- Written instructions
- Equipment and area/s to be cleaned
- Frequency of cleaning
- Person/s responsible
- Cleaning and sanitising agents (concentration, temperature and contact time)
- Precautions against the contamination of food and ingredients.

In a successful cleaning program, staff must be trained adequately and also receive refresher training on a regular basis.

Following cleaning and sanitising, you and your staff should use a checklist approach to ensure the effectiveness of the process.

Checks should include:

- Visual checks to ensure items are free of any foreign material
- That there are no visual signs of chemical/cleaning residue i.e. not cloudy or dull residue. The surface should be shiny
- The surface should be dry.

Compromising the cleaning and sanitation process

Not following procedures, and / or 'taking short cuts' can compromise the cleaning and sanitising process in the following ways:

- In some cases, by encouraging the growth of bacteria by not removing the food source
- Increasing the food safety risk to your customers by NOT removing bacteria or NOT removing allergens

These incidences are a VERY high risk to your customers as they cannot be traced through product knowledge and labelling.

Standards of presentation

To achieve a clean and hygienic environment for customers to enjoy an organisation will document the presentation and hygiene standards for each department / work area in their standard operating procedures (SOP's) and training manuals.

Posters / photographs and checklists are also common tools by which presentation and hygiene standards are communicated to the team.
Examples:

- A housekeeping department may use pictures to show how the bed, bathroom, guest literature and hospitality tray should be presented, and a checklist provided as a self-check after servicing each room.
- Posters are commonly used to communicate personal hygiene standards, uniform standards and handwashing techniques.

It is important to take time to learn the presentation and hygiene standards required for your job role and work area. Everyone shares the responsibility for presenting a clean, hygienic image of themselves and their workplace to customers.

Cleaning schedules

A cleaning schedule is basically a plan to ensure all areas of the business are clean and hygienic.
A good cleaning schedule is like a jigsaw puzzle – accountability for cleaning all areas is allocated and there are no missing pieces. For businesses that prepares and serves food, the cleaning schedule forms an important part of the food safety program.

Within organisations cleaning and maintenance is scheduled and recorded:

- Daily cleaning checklist
- Weekly periodic maintenance checklist
- Monthly maintenance log

Cleaning schedules should include the following information:

- What needs to be cleaned
- Who is responsible?
- When it needs to be cleaned – after use – daily – weekly – monthly?
- Instruction on how to clean
- Specialised equipment and products to be used
- Safety precautions

By timing cleaning tasks to be performed during low volume periods, cleaning schedules can minimise customer inconvenience and a business can schedule tasks to be completed efficiently with little interruption.

Reporting hazards

A hazard is anything that could cause harm to any person, property or equipment and may be identified at any stage during the cleaning process.

Hazards might occur because of customers, other staff, faulty equipment, wear and tear or damage.

Examples:

- Frayed electrical cord
- Worn carpet
- Cracked glass in a window
- Missing guard on equipment
- Faulty PPE e.g. holes in gloves and straps missing on masks

To minimise risk to yourself and others immediately:

- Remove or isolate the hazard
- Report the hazard per organisational procedures e.g. to a manager/on a maintenance report

Reduce negative environmental impacts

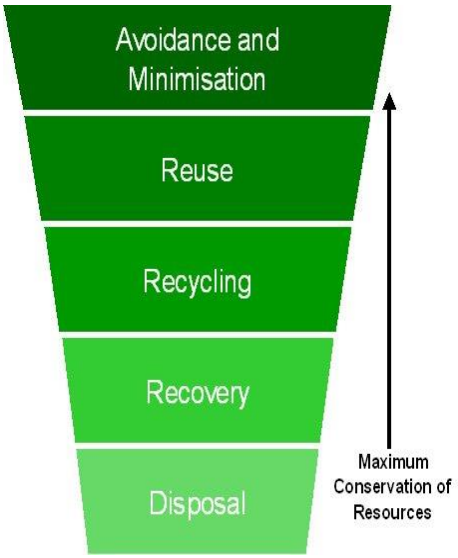
Cleaning often involves the use of products that contain chemicals. These are sometimes toxic to the natural environment. Some may also be toxic to people and animals.
Environmentally sensitive work practices are a current focus of many Hospitality and tourism organisations. Many organisations have swapped to new environmentally friendly, biodegradable brands of cleaning product which eliminate Volatile Organic Compounds (VOCs) commonly found in traditional everyday cleaning products, and actively conserve energy and water.
Eco-friendly cleaning reduces negative impacts on the environment but, just as importantly, it assists in reducing exposure to potentially harmful chemicals that can endanger the health and safety of building occupants, visitors and the cleaning staff.

Some benefits of eco-friendly cleaning include:
- Environmental responsibility without sacrificing quality or adding additional cost
- Provision of healthier facilities for employees, reducing sick days
- Minimal exposure to aggressive cleaning chemicals
- Reduction in allergies / allergic reactions
- Reduction in costs associated with waste disposal, water and energy
- Gentler on furniture, fixtures and interior finishes, minimising wear and tear
- Positive public image and meets public expectations

Some examples of efficient use of energy, water and other resources include:
- Use of environmentally friendly (eco-friendly), bio degradable cleaning products
- Changing rubbish disposal procedures – reducing land fill through recycling
- Use of renewable resources e.g. solar power
- Use of power saving measures e.g. key cards to enable room lights and turning off electrical appliances (large and small) at power points, when they are no longer being used
- Water saving measures such as dual flush toilets, water efficient shower heads, recycling grey water for gardens and requests to hotel guests to assist in saving water by minimising laundry of towels

Many customers are looking to support organisations that offer their services in a way that has a neutral or positive effect in the environment. Consider for a moment the opinions a customer who commits to recycling their waste at home, may have of a business that makes little attempt to recycle packaging, oil, drink cans, glass, food waste etc. to reduce negative environmental impacts?

Safely dispose of all waste and hazardous substances



Local state and federal legislation states that all garbage and used chemicals must be disposed of safely and hygienically. Each state and territory will also have environmentally protection legislation that will give guidelines on handling, storing and disposing of hazardous chemical garbage.

Restaurants and other hospitality and tourism organisations are major contributors to landfill.

By incorporating simple recycling and waste reduction programs and procedures the volume of waste sent to landfill can be reduced. This will help save the restaurant operators money, extend the life of landfills and save valuable energy and natural resources.

Chemical disposal

Each chemical has different properties and will require different disposal measures.

Always check the disposal requirements on the SDS. Should chemicals get into the storm drainage system they can pose a risk to the health of people, animals and plant life.

General principles for disposal of chemicals:

- Closely follow the manufacturer's directions for safe disposal (refer to SDS sheet)
- Speak to the local council for additional disposal information
- Ask a supplier if the chemical containers are returnable
- Handle slowly and carefully to avoid splashes
- Always wear gloves and other protective clothing as necessary
- Ensure in the area is a well ventilated
- Do not remove the label from empty chemical containers
- Place used chemicals in approved waste containers for collection or follow appropriate instructions to prevent environmental damage
- Do not tip the chemicals down sinks used for food preparation / handwashing
- Where the SDS sheet says non-hazardous chemicals may be disposed of in the main drain, use the designated drain in the workplace.

Garbage

An adequate supply of small waste bins should be provided in every area of a hospitality or tourism organisation and emptied regularly to minimise odour and protect the health of customers and colleagues. These areas include guestrooms, bathrooms, kitchens, dining rooms, bars, lounge and reception rooms, public toilets and office areas, behind bars. Bins should be a suitable type for each area and should always have well fitted lids. Use of disposable liners in all bins is recommended.

Plastic rubbish liners made of recycled High Density Polyethylene (HDPE) provide a more sustainable alternative.

For health reasons waste from a customer's room should be removed when room is cleaned. Housekeeping trolleys often have containers or separate bags to allow for the sorting of recyclables.

A large central waste storage area should be sited in a convenient location not visible by customers and away from food preparation and storage areas.

Local councils provide information on what is recycled in their area and days for rubbish removal. Some organisations go beyond standard recycling processes and look for opportunities to recycle. This could include affiliations with local farmers and charities. Farmers may take food scraps and often charities may recycle bottles and accept safe food that has not been sold. Always check with the local council before donating food to charities.

Some items that can be recycled are:

- Plastics
- Containers and packaging
- Cartons
- Glass
- Papers and cardboards
- Aluminium
- Oils
- Food scraps and meat cut offs
- Coffee grounds
- Corks
- Candles

Maintain Garbage Areas

Established procedures for the storage and removal of rubbish are required to maintain hygiene standards. Different procedures will apply to different areas of an operation.

All food preparations areas accumulate rubbish. Rubbish should be placed in plastic bags and stored in containers with tight fitting lids. Garbage should be placed as far away from the entrance of the establishment as practical, preferably in a designated area.

Maintaining good hygiene and garbage clearing procedures avoids:

- Cross contamination
- Smells which turn customers away
- Creating a breeding ground for vermin or flies.

Storage of Garbage and Recyclable Matter

Food premises must have facilities for the storage of garbage and recyclable matter that:

- Adequately contain the volume and type of garbage and recyclable matter on the food premises.
- Enclose the garbage or recyclable matter, if this is necessary to keep pests and animals away from it.
- Are designed and constructed so that they may be easily and effectively cleaned.

Steps for cleaning garbage areas:

- Wear gloves
- Seal the bin liners so contents are contained
- Remove garbage to the main refuse area
- Clean up any scraps that have displaced
- Wash and scrub bin including the lid with hot water and detergent
- Wash surrounding area – floors/walls
- Rinse with hot water
- Sanitise bin
- Tip bin over onto clean surface to allow to dry
- Reline bin with plastic liner
- Remove gloves and wash hands

References

Be Prepared, Be Allergy Aware. NSW Food Authority
http://www.foodauthority.nsw.gov.au/_Documents/retail/be_prepared_be_allergy_aware.pdf
http://www.food.gov.uk/sites/default/files/multimedia/pdfs/publication/thinkallergy.pdf
Allergy & Anaphylaxis Australia www.allergyfacts.org.au
Food allergy and intolerance NSW Food Authority

Appendices

Appendix 1 – *Food Act 2003* Extract

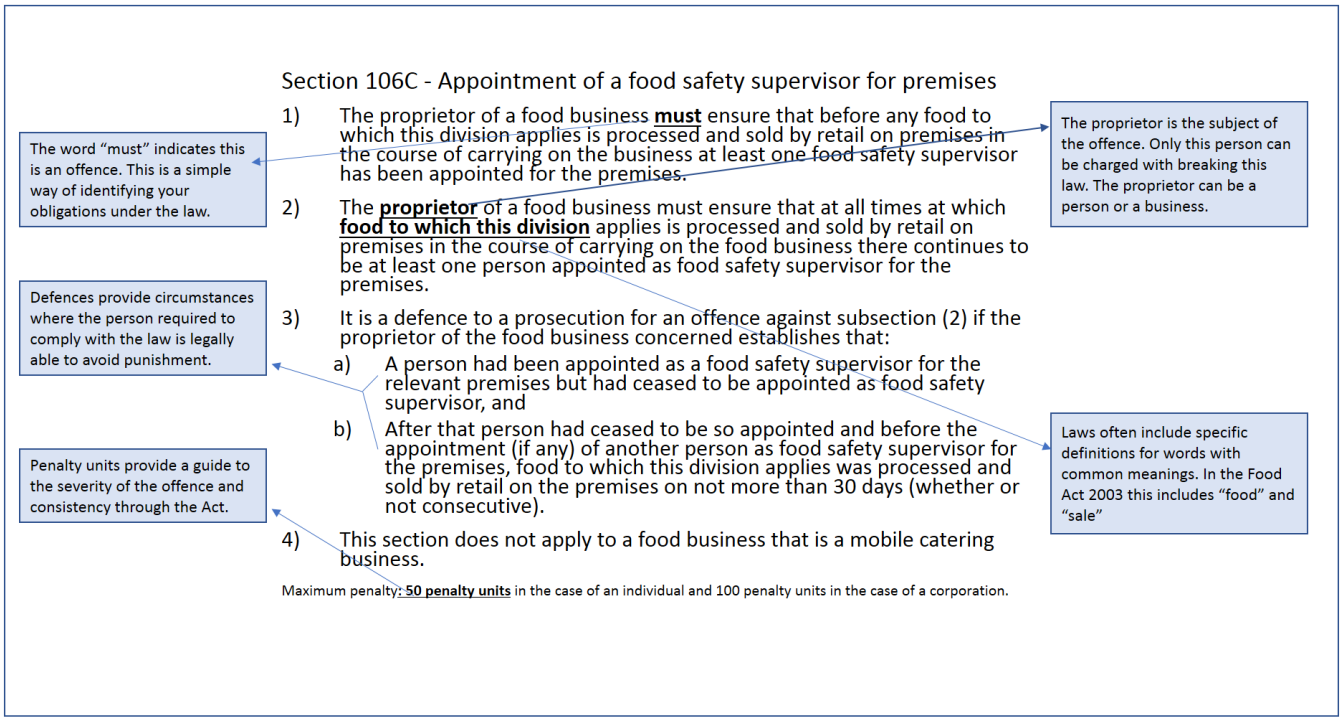
NSW - Reading the *Food Act 2003*

Legislation, i.e. Acts and Regulations, are written to be as clear as possible for courts to interpret. This means that they will often spell out specific words more than once in each clause or section.

This is to make to whom a certain matter applies very clear. This is especially important if the matter has a penalty attached.

In the example below, you can see the "proprietor of a food business" is mentioned three times, to clarify responsibility between the proprietor and the appointed food safety supervisor.

Figure 1 – Extract of NSW Food Act 2003: Section 106C



QLD - Reading the *Food Act 2006*

Division 2 Food safety supervisors

86 Licensee to have food safety supervisor

(1) A licensee must, within 30 days after the licence is issued under section 60(1), have a food safety supervisor for the food business under the licence. Maximum penalty—50 penalty units. Note— If a corporation commits an offence against this provision, each executive officer of the corporation may be taken, under section 260A, to have also committed the offence. [s 87] Food Act 2006 Chapter 3 Licences for particular food businesses Page 66 Current as at 22 June 2020 Authorised by the Parliamentary Counsel

(2) The licensee must at all times continue to have a food safety supervisor for the food business under the licence. Maximum penalty—50 penalty units. Note— If a corporation

commits an offence against this provision, each executive officer of the corporation may be taken, under section 260A, to have also committed the offence.
(3) The licensee— (a) may be the food safety supervisor for the food business; and (b) may have more than 1 food safety supervisor for the food business.
87 Availability of food safety supervisor
(1) The licensee must ensure a food safety supervisor for the food business under the licence is reasonably available to be contacted by the local government that issued the licence while the food business is being carried on. Maximum penalty—50 penalty units.
(2) The licensee must ensure a food safety supervisor for the food business under the licence is reasonably available to be contacted by persons who handle food in the food business while the food business is being carried on. Maximum penalty—50 penalty units.

88 Licensee to advise local government about food safety supervisor
(1) A licensee must, within 30 days after the licence is issued under section 60(1), advise the local government that issued the licence of the name and contact details of each food safety supervisor for the food business under the licence. Maximum penalty—50 penalty units. [s 89] Food Act 2006 Chapter 3 Licences for particular food businesses Current as at 22 June 2020 Page 67 Authorised by the Parliamentary Counsel
(2) Subject to subsection (1), the licensee must, within 14 days after a person becomes a food safety supervisor for the food business, advise the local government of the person's name and contact details. Maximum penalty—50 penalty units.
(3) The licensee must, within 14 days after a person stops being a food safety supervisor for the food business, advise the local government of the fact. Maximum penalty—50 penalty units.
(4) The licensee must, within 14 days after the contact details of a food safety supervisor for the food business changes, advise the local government of the change. Maximum penalty—50 penalty units.

NSW Penalty Units

Penalty units are used to describe matters in law that may be enforced through financial punishment (i.e. fines). Punishment for breaking the law is not limited to fines. Some offences in the *Food Act 2003* may be enforced through imprisonment (e.g. intentional sale of unsafe food), however most offences are enforced through fines or other methods (e.g. prohibition order – mandatory order to cease trade).

In NSW, penalty units are set at $110 across all Acts and Regulations, therefore if you are fined for breaking a law, you will be fined a multiple of $110 up to the maximum, depending on the severity of the offence. Corporations are fined at two to five times the rate of individuals.

Authorised Officers (such as *Environmental Health Officers* working for Local Councils, or Food Authority *Authorised Officers*) are also able to issue penalty notices with fixed fines for breaking the law. The amounts of these notices are outlined in Food Regulation 2015 Schedule 2. These fines are generally 6 or 7 times the standard $110 penalty unit (i.e. $660 or $770 for an individual or $1,320 or $1,540 for a corporation).

QLD Penalty Units

Queensland Act

The Queensland Act imposes penalties of up to 1000 penalty units ($75,000) for failing to possess a Food Safety Program when one is required under section 99 of the Food Act 2006. In addition to this and the penalty for failing to amend a Food Safety Program under section 114 noted above, Sections 123 to 126 of the Food Act 2006 set out an array penalties which can be imposed on the actual licensee, such as:

500 penalty units ($37,500) for a failure to comply with the Food Safety Program – section 123

1. 50 penalty units ($3,750) for failing to keep a copy of the Food Safety Program at each of their business premises – section 124
2. 50 penalty units ($3,750) for failing to keeping the Food Safety Program available for inspection by employees – section 125
3. 200 penalty units ($15,000) for advertising the business possesses an accredited Food Safety Program when in fact it does not.
4. 50 penalty units ($3750) for a failure to notify local government of the name and contact details of each food safety supervisor for the business within 30 days of a licence being issued - section 88(1).
5. 50 penalty units ($3750) for a failure to notify local government within 14 days of a person becoming a food safety supervisor for the food business, of that person's name and contact details - section 88(2).
6. 50 penalty units for a failure to notify local government within 14 days of a person ceasing to be a food safety supervisor in relation to the food business - section 88(3).

The situation in Queensland can be contrasted to that in Victoria, where section 19W of the Victorian Food Act 1984 states (in relation to the Part IIIB of the Act which regulates Food Safety Plans):

No penalties other than those expressly provided for in this Part apply to any failure to comply with this Part.

The only penalty provisions in Part IIIB of the Victorian Act relate to the auditors of a food safety plan and not the actual business itself. Unlike the Queensland Act, the Victorian Act does not impose a specific penalty for the failure to comply with a food safety plan (which is the same thing as a 'food safety program'). However, instead, any non-compliance in relation to a food safety plan in Victoria is dealt with by the Food Act as a breach of the Food Standards Code. Clause (3)(d) of Standard 3.2.1 of the Australia New Zealand Food Standards Code requires that a business must comply with its Food Safety Program, and therefore any failure to comply would would breach section 16 of the Victorian Food Act that imposes a penalty of up to $40,000 for individuals and a $200,000 penalty for corporations for breaches of the Food Standards Code. However, the law is relatively straight-forward and does not require the Queensland approach of prescriptive technical rules buried in reams of paper and procedure which create separate legal offences for technical breaches that might not have a direct relationship with the state of food safety at the premises.

It should also be noted that by incorporating penalties directly into each of the separate requirements governing aspects of the Food Safety Program provisions in the Food Act 2006, the Queensland Act imposes penalties for situations which do not exist in Standard 3.2.1 of the Food Standards Code, such as the requirement to make the Food Safety Program available for inspection to employees, and there is also a separate extra penalty in the Queensland Food Act for advertising the existence of an accredited Food Safety Program when one does not exist.

Examples of Food Safety Records

Examples provided are to show information that requires to be recorded for HACCP monitoring.
Comment in italic provide examples of corrective actions.

Date	Ice slush Temperature +/- 0⁰C	Action taken if variation is over/under by more than 1⁰C	Name
x/x/17	+ 2⁰C	*Removed from use - tagged out of order* *Reported to manager* *Completed maintenance report*	J Kue

Chiller / freezer Temps	Record for Chilled food counter – restaurant To be checked twice daily To be at or below 5⁰C							
Date	**Test 1 Time**	**Temp**	**Checked by:**	**Test 2 Time**	**Temp**	**Checked by**	**Corrective action taken**	**Name**
x/x/17	*1130am*	*4⁰C*	*Al Marr*	*6.30pm*	*7⁰C*	*Jo Kue*	*Removed stock and put in chiller 2* *Reported to manager* *Maintenance report completed*	*Jo Kue*

Good received record

Goods received record	All chilled goods must be delivered at or below 5⁰C (1x chilled item per delivery tested) All frozen goods must be delivered frozen hard / at or below -18⁰C (1x frozen item per delivery tested) All goods must be delivered within use by/best before dates and in dated, clean and undamaged packaging Delivery van must be clean and storage temp in accepted range (chilled at or below 5⁰C / frozen at or below -18⁰C)							
Supplier	**Time**	**Product**	**Temp**	**Checked** If not acceptable do not tick and complete action taken	**Accept/Reject** If rejected complete action taken	**Action taken**	**Name**	**Date**
Coes	*7am*	*Frozen fish*	*-10⁰C*	-use by / best before date □ √ -packaging clean /undamaged □ X	□ Accept □ X Reject	*Partially defrosted and packaging ripped.* *Separated from stock and labelled for return* *Supplier compliant for completed and submitted*	*Jo Kue*	*x/x/17*
				--use by / best before date □ - packaging clean /undamaged □	□ Accept □ Reject			

Food processing record for potentially hazardous food **Product: Salmon Fillet for cold buffet**			Cooking and reheating critical limits: See Food Safety Manual. 2/4hr rule – products in the danger zone: • Less than 2hr refrigerate • Between 2-4hours use immediately • 4 hours or more discard Cooling: • Cool from 60°C to 21°C (internal temp) within 2 hours • Cool from 21°C to 5°C (internal temp) within 4 hours.		
Stage of preparation	**Time**	**Temp**	**Date**	**Record of Action & Corrective actions taken**	**Name**
Thawing					
Preparation	*10am*	*4⁰C*	*2/2/17*	*Put in chiller 10.30am*	*A Best*
Cooking	*11.00am*	*4⁰C*	*2/2/17*		*A Best*
	11.30am	*55⁰C*	*2/2/17*	*Moved to top of oven*	*A Best*
	11.45am	*68 ⁰C*	*2/2/17*	*Put in chiller*	*A Best*
Cooling	*1.15pm*	*30⁰C*	*2/2/17*	*Split into smaller batches*	*A Best*
	1.45pm	*18⁰C*	*2/2/17*		*A Best*
	3.30pm	*4⁰C*	*2/2/17*		*A Best*
Reheating	-	-			
	-	-			
	-	-			
Serving	*5.00pm*	*3⁰C*	*2/2/17*		*M Lee*
	8.00pm		*2/2/17*	*All eaten*	*M Lee*
				**actions could include discarded, returned to refrigerator for use 'X'*	