

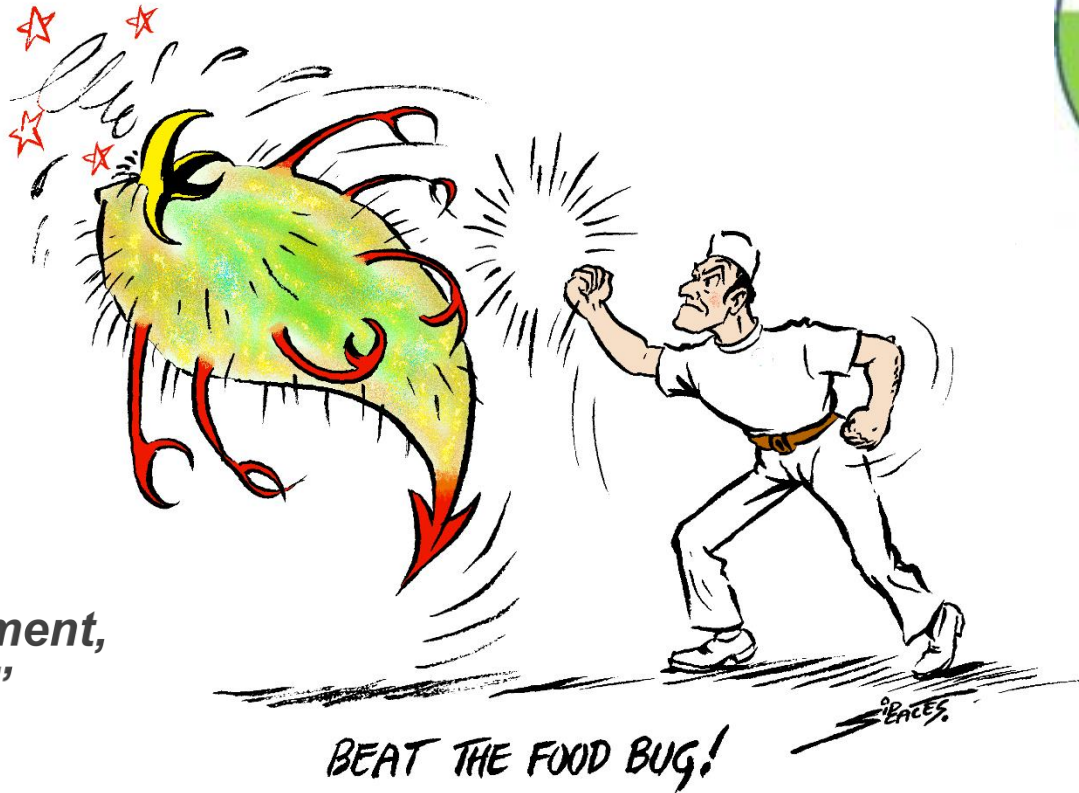
Easy Learn Notes

Helping you Achieve the Food Act Goal

Safe and Suitable Food



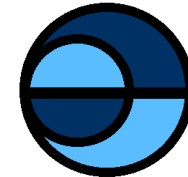
National
Programmes



Template
FCP's

*"Get the Knowledge,
Make the Commitment,
Walk the Talk"*

environmental



outcomes

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Respect is the key!

Preliminaries

Welcome

The aim of the programme

The 'Key to Success'

Welcome

Congratulations on starting the 'SafeFoodHandler' programme.

There are new food laws in New Zealand; the Food Act 2014 and the Food Regulations 2015. These new laws now place the responsibility onto businesses to produce safe and suitable food. This responsibility is supported through the use of Food Control Plans and National Programmes.

The SafeFoodHandler Programme has recently been modified to make it current with the new law and to help staff to quickly get used to the principles and practices that they will need to apply as part of their role as a food handler.

The aim of this programme is to make sure that people, who eat food that has been prepared, handled or served by you, only receive safe and suitable food.

By completing the programme you will show that you have a positive attitude towards the important principles of safe food handling and your customers will feel more confident about buying and eating food produced or served by you.

There are thousands of businesses in New Zealand where prepared food is sold directly to the public and hundred that produce food for sale by wholesale. Clearly it's an impossible task for food safety officers and/or verifiers to continually check every chicken cooked, every hand washing, every refrigerator etc. For this reason this programme has given priority to the task of getting the people who handle food at these outlets to take on the responsibility themselves of preparing food safely.

Food safety involves knowing and doing. You have to know what makes food safe or unsafe, and even more importantly commit to ensuring that you only provide safe and suitable food to your customers.

It is this combination of knowledge and commitment on your part that will encourage you to 'Walk the Talk' and indeed be a 'Safe Food Handler'



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Headlines that any food business wants to avoid

Food poisoning cases spike

Food bug takes down mayor and councillors

University students felled by bug after party

When food can kill

Don't blame us for gastro bug says lettuce supplier

Thousands at risk from food bug

Food poisoning epidemic: Range of foods linked to bug

Stomach bug hits Waikato

Tracking the cause of a painful food poisoning epidemic

**Don't be Part of the Problem
Become Part of the Solution
Be a 'Safe Food Handler'**

Purpose

What is food safety?

The aim of food safety

The cost benefits

What is meant by food poisoning and food diseases

What is Food Safety?

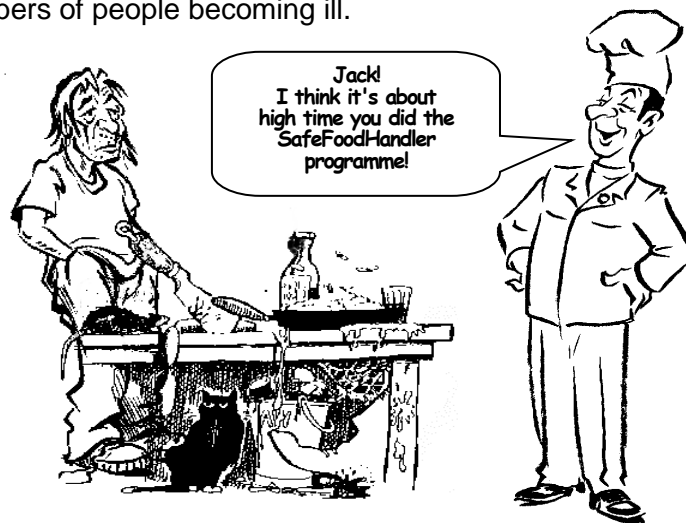
Food Safety is more than just cleanliness; it also means:

- protecting food from risk of **contamination**, including harmful **bacteria**, poisons and other harmful things (like pieces of glass, rat droppings or cigarette ends) which should not get into food;
- stopping any germs present growing to a number which would result in the illness of customers or result in early **spoilage** of the food;
- destroying any harmful germs in the food by thorough cooking or other processing.

The Aim of Food Safety

The primary aim of food safety is to stop people getting sick from eating unsafe food¹. The other aim is to maintain good food quality through all stages of **processing** until it is finally eaten.

At home where food is prepared for a few people the result of food **contamination** could make the family sick. But if food is contaminated in a kitchen of a hotel or in a food factory it can have devastating results of large numbers of people becoming ill.



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What the law says

The Food Act 2014 states that:

Safety means a condition in which food, in terms of its intended use, is unlikely to cause or lead to illness or injury to human life or public health

Suitability includes the composition, labelling, identification, and condition of the food

Meaning of Words

'**Bacteria**' means germs that can live and grow on food - they can quickly grow to millions and that makes you sick if you eat the food.

'**Spoilage**' means food that has gone off or looks/smells bad.

Note

¹When people get suddenly sick from eating food its called food poisoning.

Meaning of Words

'**Processing**' means storing, handling, cooking and serving of food.

'**Contamination**' means when dirt, germs or any thing nasty or unwanted gets on food.

The Cost of Poor Food Safety

- food contamination;
- complaints from customers about the place and the food;
- the place has rats, mice, flies, and other nasty insects and pests;
- food wasted due to spoilage;
- fines and the shame of being taken to court because of poor food safety;
- **Food Safety Officers** closing you down¹;
- loss of production;
- stripping the place out, scrubbing clean and replacing bad or damaged equipment;
- food poisoning **outbreaks** that can sometimes even kill people.



All of these things will affect the business badly. If the business is threatened, staff may lose their jobs.

It's in everyone's interest to have the highest standards of food safety.

The Benefits of Good Food Safety

- satisfied customers, a good reputation and more business;
- increased **shelf-life** of food;
- good working conditions;
- staff and management feel good and have a good attitude;
- fewer staff leaving the job;
- good reports from your **verifier**.

All of these things will be good for the business, mean higher profit and more money to pay workers.



Meaning of Word

'**Food Safety Officers**' are people who work for the government or local council, and their job is ensure that food businesses are producing safe and suitable food for sale, follow up on complaints and reports of food borne illnesses confirmed by the local District Health Board.

Note

¹The Food Act 2014 and Food Regulations 2015 empower Food Safety Officers to close down unsafe food businesses, remove bad food and fine the business, management or staff for poor food safety.

Under the new laws, fines may be as high as \$500,000 and also instant fines may be imposed.

Meaning of Word

'**Outbreak**' means when many people get sick.

Meaning of Word

'**Shelf-life**' means the length of time food can be kept before the quality becomes poor and therefore can't be sold.

Pre-packaged potentially hazardous foods products that require refrigeration commonly have either a 'use-by date' or 'best before date'

Meaning of Word

'**Verifier**' means either the person employed by your Council for this job or an independent auditor, registered with the Ministry for Primary Industries.



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Food Poisoning and Food Diseases

'**Food poisoning**' means getting sick from eating contaminated food or drink (including water).

Most illnesses that are caused by eating food are called 'food poisoning' and the **micro-organisms** responsible for illness are **viruses, bacteria and fungi**.

Generally food poisoning results from contamination of food and subsequent growth of food poisoning micro-organisms. With or without the presence of these food poisoning germs food will decay or spoil because of the many spoilage micro-organisms present.

Food poisoning outbreaks often begin by the sudden start of illness (usually **vomiting** and **diarrhoea**) within a short time after people have eaten or drunk one or more of the same foods.

You can also get food poisoning from many types of contaminants:

- chemical contaminants (such as cleaning agents, insect sprays, and metal contaminants such as lead or copper);
- poisons produced by germs;
- some foods can contain *poisons* from other things found in nature such as shellfish becoming poisonous from ¹algal blooms, and potatoes, left in the sun, produce a green colour on their skins that is poisonous.

Food or water can also pass on many types of **infectious diseases** but these are not called food poisoning and are known as food borne illnesses or food diseases.



Meaning of Words

'**Micro-organisms**' (we call them germs or bugs); are the smallest of living things; they are too small to see without a microscope yet cause most of the disease in the world.

'**Viruses**' are the smallest of germs and cause many common and some serious illnesses such as colds, flu and hepatitis.

'**Bacteria**' are larger than viruses but as they can grow on food to large numbers they often cause food poisoning.

'**Fungi**' are like plants but feed on dead things; some fungi are good to eat like mushrooms but others contain toxins (poisons).

Meaning of Word

'**Vomiting**' means throwing-up, or spewing or being sick.

"**Diarrhoea**" means loose bowels, the trots and another common name too rude to print! (sh... you know what!)

Note

¹Algal blooms are formed when large numbers of algae (a small type of plant) grow in the sea.

Meaning of Word

'**Infectious diseases**' means illnesses that are spread from person to person and includes things like colds flu, hepatitis and parasites like threadworms



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Principles

Common causes of food poisoning

How to stop food poisoning happening (breaking the chain)

Protecting food from contamination

Growth (multiplication) of bacteria

How to stop the germs growing

How to destroy germs that are in food

Main points to remember

Common Causes of Food Poisoning

- Preparing food too far ahead of time before it is eaten and storing it at room temperature¹;
- Cooling food too slowly before storing in the refrigerator²;
- Not reheating food to high enough temperatures to kill off food poisoning bacteria³;
- The use of cooked food already contaminated with food poisoning bacteria⁴;
- Not cooking food thoroughly (especially large pieces of food like roasts)⁵;
- Not thawing frozen poultry long enough so that the middle (gut cavity) is still frozen⁶;
- Cross-contamination from raw food to cooked food⁷;
- Leaving potentially hazardous foods for long periods in a warm place⁸;
- Food handlers who have an infectious disease⁹;
- Using leftovers¹⁰.

Notes

¹Keeping potentially hazardous food at warm temperatures allows germs to grow rapidly.

²Big pots of food can take hours to cool - small shallow dishes let food cool quicker.

³You need to almost re-cook food to be sure it is safe, re-warming food will not kill germs.

⁴Food from an unknown or bad supplier may already be poisonous.

⁵Cook food long enough so that the middle of it reaches at least 75°C (piping hot).

⁶If poultry is not thawed properly the inside may not get hot enough during cooking.

⁷Food that has just been properly cooked has no germs so don't contaminate it.

⁸Germs grow on potentially hazardous foods kept above 5°C and below 60°C.

⁹Would you eat food that's been sneezed on or handled by someone who has just vomited?

¹⁰Leftovers are often exposed to contamination and kept at warm temperatures for long periods.

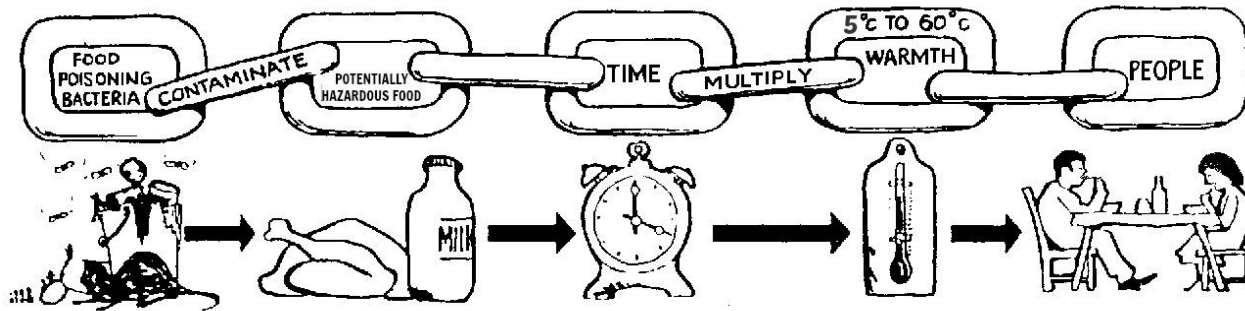


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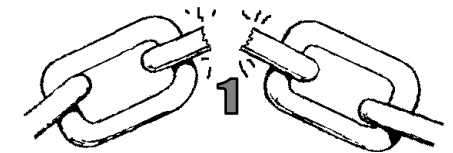
How to Stop Food Poisoning

In most cases of food poisoning a *chain of events* takes place and, if you are to reduce the incidence of illness, this chain must be broken.

Break the Food Poisoning Chain

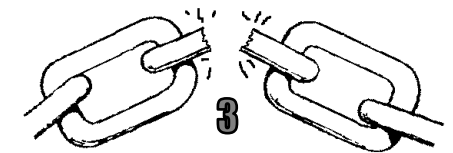


protect food from contamination



stop germs growing

kill any germs already in the food



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How to Protect Food from Contamination

- keep food covered whenever possible;
- only use suitable, clean equipment in good repair;
- only use clean wiping cloths¹;
- handle food as little as possible - tongs, plates and trays should be used in preference to hands;
- always keep raw and cooked food separate at all stages of food processing²;
- stop insects, animals and birds from coming into contact with food or rooms where food is prepared or stored (food rooms)³;
- store food in rat and mice-proof containers and make sure that the lids are tightly replaced after use;
- have the highest standards of personal hygiene at all times (shower and shampoo hair before starting work and wear clean clothes);
- wear suitable, clean protective clothing to protect food;
- do not handle parts of crockery or cutlery that comes into contact with food, for example, knife blades or inside glasses and cups;
- remove unfit or waste food and rubbish waste (garbage) promptly and keep it well away from food and food rooms;
- keep food and food equipment off the floor;
- don't let the blood from thawed frozen meat, fish and poultry come in contact with food – this is particularly important for potentially hazardous food or the surfaces and equipment used for potentially hazardous food;
- use safe and effective cleaning procedures;
- use wash-hand basins for washing your hands only⁴.

Note

¹Disposable paper cloths are the best kind.

Note

²The same equipment and working surface must not be used for raw food and potentially hazardous foods.

Note

³Keep pests out. This is better than having to get rid of them when they are already there.

Note

⁴Do not use the wash-hand basin for washing food or equipment. You can use one of the food sinks for rinsing food off your hands provided it has no food or equipment in it.



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Growth of Bacteria

Bacteria are microscopic organisms that are found everywhere; both on and in food, in water, soil and air and on and in animals including people.

It may be surprising to know that most bacteria are quite harmless. Some are actually helpful to us, for example they are needed to make yoghurt and some kinds of cheeses. However, a small number of bacteria cause food spoilage and some, known as **pathogens**, are responsible for causing illness.

It is just about impossible to run a food business without food poisoning bacteria being present at one time or another. It is therefore really important that you don't have any conditions that would allow them to multiply to a level where they could give customers food poisoning.

Bacteria responsible for causing food poisoning need the following conditions to help them to grow.

Warmth

Most food poisoning bacteria grow (multiply) quickest at 37°C, (our normal body temperature), although they can grow quite quickly between 20°C and 50°C. To prevent their growth we must make sure that the temperature of food is kept below 5°C or above 60°C. The temperature range of 5°C to 60°C is often referred to as the danger zone. Some bacteria are able to produce **spores** that enable them to survive difficult conditions such as high temperatures.

Food and moisture

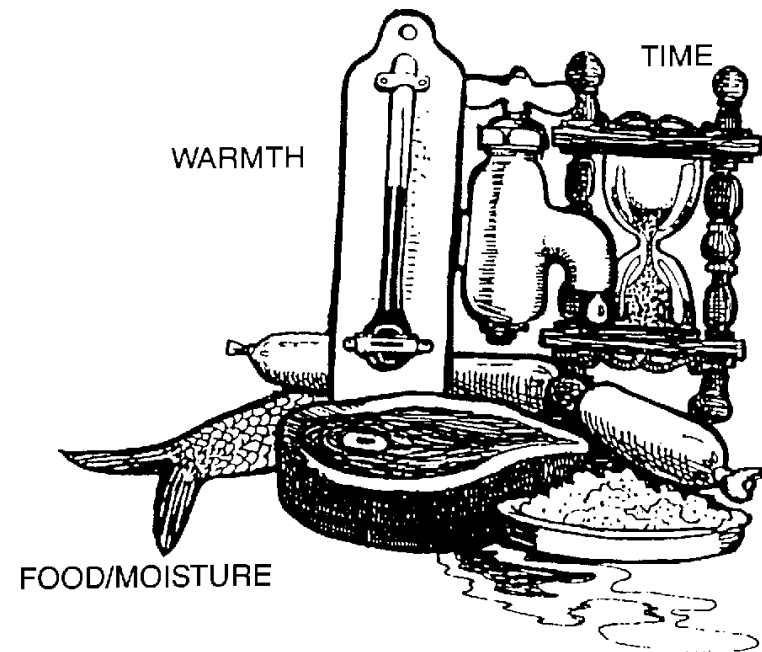
Germs prefer moist, high protein foods like meat, fish, poultry and dairy produce. Foods that are dried such as powdered egg or milk do not provide the conditions necessary for germs to grow. However, once water is added to the powder, any bacteria present will start growing. It's essential therefore, to use such food as soon as possible after adding water.

High concentrations of sugar, salt, acid or other preservatives in food help prevent germs growing.

Meaning of Word

'**Spores**' means germs that have closed themselves into a kind of shell which protects them from such things as heat, dryness and chemicals.

They remove the shell and continue as normal when conditions become good again for them.



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Time

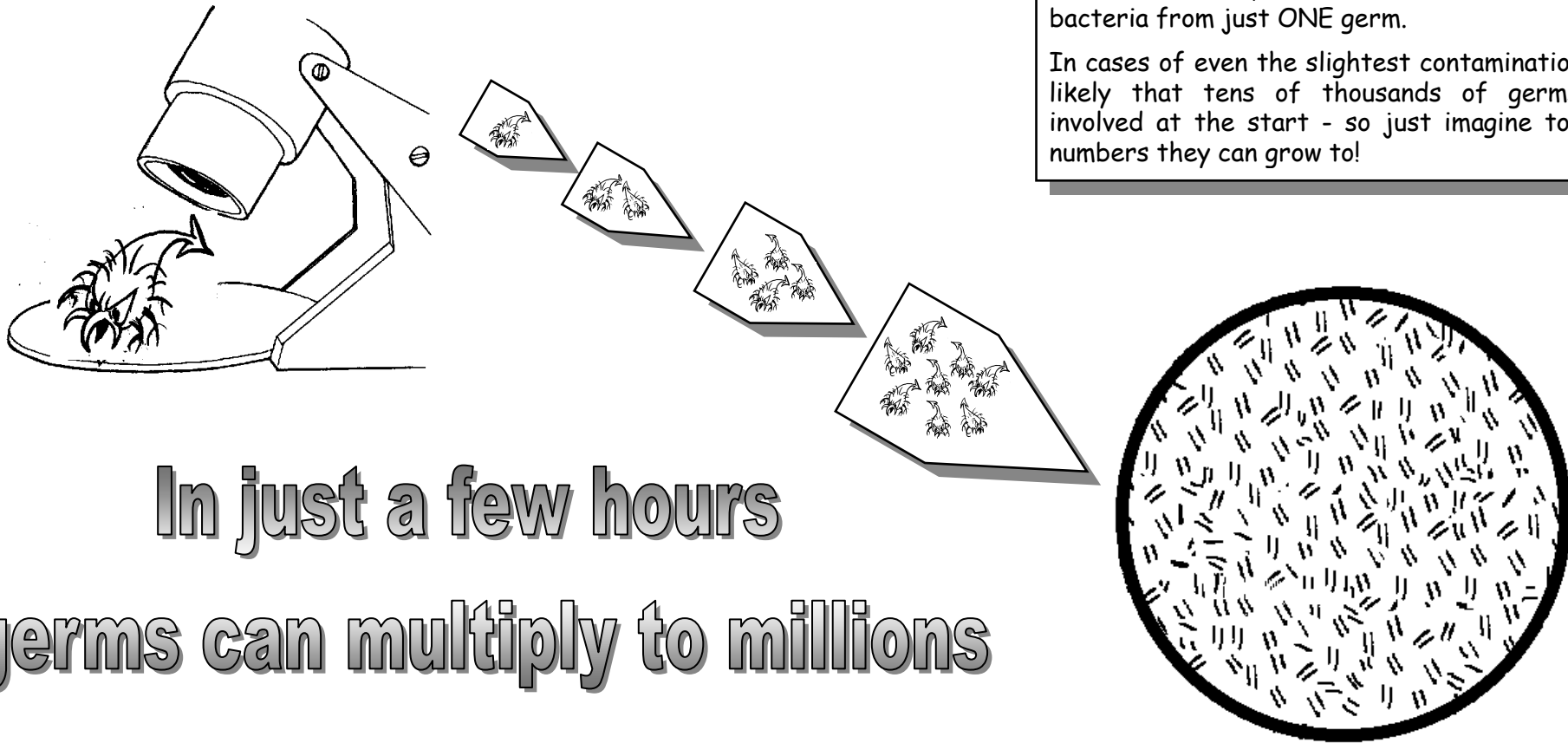
Given the right conditions of food, moisture and warmth, **some bacteria can divide into two every twenty minutes.** If there is sufficient time, a few bacteria can multiply to such an extent that there are enough present to cause food poisoning. For this reason it is essential that potentially hazardous foods are not left in the danger zone for longer than is absolutely necessary.

Note

Given optimum conditions, one germ can grow and divide to become two in twenty minutes, after 40 minutes we have four germs after 60 minutes 8 germs, after two hours 64 after 8 hours 16,777,216.

That's sixteen million seven hundred and seventy seven thousand, two hundred and sixteen bacteria from just ONE germ.

In cases of even the slightest contamination it is likely that tens of thousands of germs are involved at the start - so just imagine to what numbers they can grow to!



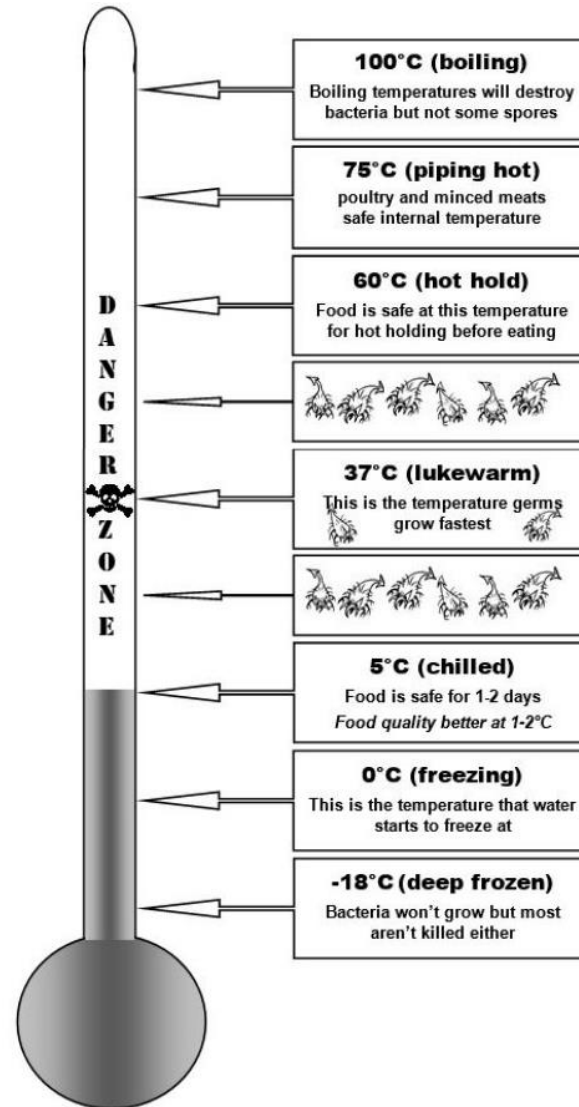
**In just a few hours
germs can multiply to millions**



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How to Stop Germs from Growing

- always store potentially hazardous foods out of the **danger zone**¹;
- you may only leave food out at room temperature for very short periods where it is to be prepared or to be eaten straight away;
- during any processing or serving of potentially hazardous food, keep it out of the danger zone as much as possible¹;
- using suitable preservatives such as vinegar, salt or sugar, (such as in making pickles or jams) will reduce the risk of germs growing;
- don't allow dried foods to become moist.



Meaning of Word

'**Danger_Zone**' means the temperature between 5°C and 60°C where germs can grow.

Note

¹The total maximum time food should be in the danger zone is 2 hours if warm (above 21°C) or 4hrs if cool (below 21°C).

Note

²The most dangerous temperature for germs to grow is 37°C, which is the same as our body temperature.

Note

³Frozen foods will keep for several months if below -18°C but if the freezer warmer than this it is best to use the food within a month. If the freezer is warmer than -8°C it should be checked for faults.

Note

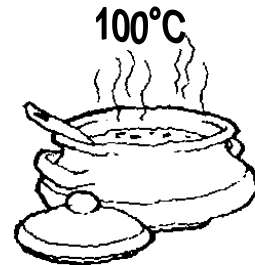
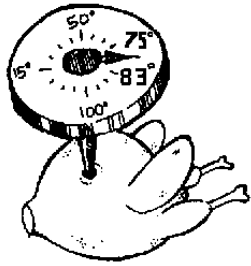
⁴Even when food is frozen, germs can be passed onto the food, so keep all foods in the freezer wrapped in plastic or stored in containers. Wrapping foods can also prevent dehydration, which is also known as 'freezer burn'.



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How to Kill Germs in Food

1 Thorough Cooking¹



2 Processing such as



pasteurised



sterilised or UHT



canning



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Note

A combination of a suitable temperature and sufficient time is always required to destroy bacteria. The time and the temperature required will depend on the particular type of germ. For example, germs that produce spores are much more resistant to heat when in this spore state.

Note

¹Bringing food up to at least 75°C (if baked) or to 100°C (boiling point) will kill all harmful germs but some germ spores may survive (see below).

Meaning of Words

'*Pasteurised*' means the food has been heated until all the bad germs have been killed but there will be some less harmful bacteria left.

Most milk is pasteurized. The bacteria which are not killed turns milk sour if it's kept out the fridge.

'*Sterilised*' means there are no germs at all.

'*UHT (Ultra Heat Treated)*' products such as milk, are sterilized in such a way that you can keep it unopened outside of the fridge for up to 6 months

(WARNING - once opened it must be kept refrigerated and used within 2-3 days, otherwise it will go bad - not sour)

Main Points to Remember

- world-wide, many millions of people suffer from food poisoning each year
- food poisoning results in loss of business and jobs as well as the illness of customers
- food which causes food poisoning looks, tastes and smells normal
- the main reason for food poisoning is storage of potentially hazardous foods at room temperature.
- food poisoning bacteria are everywhere.
- given the right conditions of warmth, food, moisture and time, bacteria will multiply rapidly.



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Programmes

Risk Based Measures

HACCP and how it came into being

HACCP in everyday life

HACCP and this programme

HACCP in practice

The 7 principles of HACCP

Some examples of critical control points

Risk Based Measures

As well as legal requirements for the construction of buildings used for food preparation and handling, New Zealand now has new laws to ensure safe and suitable food quality from the very beginning to the very end of the process (*farm to fork*). There are two main systems in place, **Food Control Plans** for higher risk food businesses and **National Programmes** for lower risk type food businesses. Both these systems are referred to in the Food Act 2014 as **Risk Based Measures**.

HACCP

Risk Based Measures need to be based on the principles known as HACCP (pronounced hassip) which stands for 'Hazard Analysis, Critical Control Points'.

What this means in plain English is that you find out what the risks are to the food and then you make sure you eliminate them, correct them or reduce them. You then write down what you've done (keep records) so that you can check and show that the food processes are safe.

HACCP is now being used by many countries. It is promoted by the World Health Organisation (WHO) as the world-wide standard for food safety. The WHO has detailed seven principles that make up HACCP and we discuss these later.

The History of HACCP

It is one of the unfortunate things about food safety that, what is a very simple and sure way of providing safe food, has such an awful name - HACCP!

The reason for this is that HACCP was first introduced in the 1960's to ensure astronauts did not get food poisoning (or food borne illnesses) during space flights. (Imagine being sick inside the helmet of a space suit!). Now NASA, at that time had the strange idea that simple activities had to have complicated names. For example a 'space walk' was called 'EVA' or 'Extra-Vehicular Activity'.



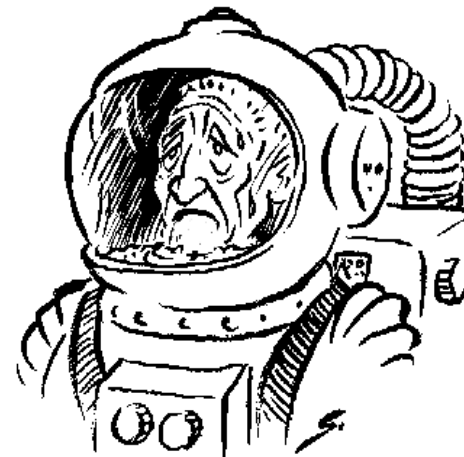
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Meaning of Words

'*Farm to Fork*' means that to make sure that food is safe, we must know what the safe history of the food is from the time it is grown/reared to the time it is eaten.

Meaning of Words

'*Risk Based Measures*' are stated in the Food Act 2014 as measures to minimise and manage risks to public health; and protect and promote public health. They ensure food is safe to eat by you knowing what the food safety risks are, then making sure those risks are sorted and then writing down what has been done so that you can prove to anyone that you have taken actions to keep food safe.



**NEVER
ALLOW
SICKNESS IN
ASTRONAUTS!**

HACCP is Everywhere!

We use principles based on HACCP in many ordinary activities in our lives and we don't even realise that we're doing it!

For example when we cross the street we 'Analyse the Hazards' – that is we know that there could be vehicles that could knock us down and injure us so we use 'Critical Control Points' – that is we look for a safe place to cross such as a pedestrian crossing. If the crossing has lights or a flag we make sure it says it is safe for us to cross or if no signals we check to make sure that no traffic is coming and we then cross the road quickly and carefully to reach the other side safely.

In more complicated processes such as flying an aeroplane HACCP includes processes such as checking and writing down steps that we must take to ensure that the aeroplane (and its passengers!) are safe. For example airline pilots use a check sheet and look at their instrument panels to make sure that the correct and safe flying procedures are followed. The purpose of the check sheet and instruments is to make sure that they don't miss any important step and the instruments are there to tell us things like the speed and height of the aircraft which otherwise they would not be able to tell accurately from just 'looking out the window'.

HACCP, Risk Based Measures and the SafeFoodHandler Programme

As already said a Risk Based Measure is about knowing the risks and doing things (taking action) to control those risks and record what you did.

Now that you are near the end of these 'Easy Learn Notes' you will have sufficient knowledge to know what the food safety the risks are.

In signing the agreement provided with the SafeFoodHandler programme, you will be making the commitment to do what is needed to avoid the risks, correct them or reduce them.

Now if you put what you know into action, you will have followed the principles of HACCP. This is what we call 'Walking the Talk'.



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Note

When you think about it, HACCP is just common sense.

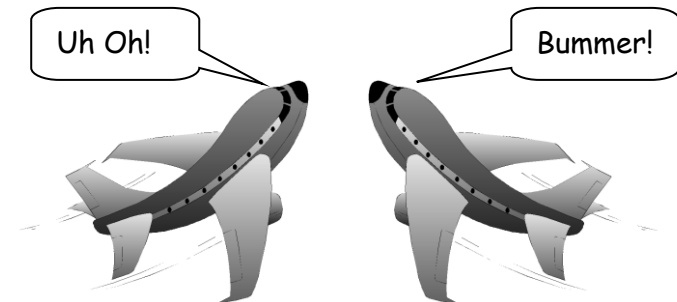
The reason why pilots have check sheets and instruments is because without them it can be unsafe to fly.

Imagine what it would be like if pilots were not trained, did not worry too much about flight safety, had aeroplanes that did not have to meet any safety standards etc!

Would you like to fly in such circumstances - we think not!

Yet in many cases food handlers are not trained in food safety, and there are some who are not very concerned about food safety, and/or who have unhygienic practices and places plus poor quality equipment and who hardly ever use check sheets or systems to monitor cooking times, temperatures and/or chiller/freezer storage temperatures.

It's no wonder therefore that so many people are getting sick from food poisoning and food borne illnesses!



HACCP in Practice

You are encouraged to further your knowledge on Risk Based Measures. These 'Easy Learn Notes' are written to provide you with the basic principles of what a Risk Based Measure is and how it works.

If your workplace already has a Risk Based Measure ask your boss to explain it to you and what your job in the Plan or Programme is. Remember that no matter how good the Plan or Programme might look 'on the shelf' what really matters is what you and your co-workers and bosses know about food safety and suitability; what your attitude is and what you do that ensures the food served to customers is safe and suitable.

Also it's important to understand that no matter how good that your Risk Based Measure and actions are, that you can always do things better, smarter and safer.

Everyone should be part of the Risk Based Measure for your business - it's not just up to the bosses! After having completed these 'Easy Learn Notes' you will have a great understanding of food safety the 'HACCP way'. You probably will know the most about your job and what is good and what can be done better. If you do find something that can be improved – write it down and give it to your boss. A Risk Based Measure should be a 'living document', this means that it becomes part of the culture of your food business and everyone has an important role to play.

Remember that it is important to cover all the safety aspects from 'Farm to Fork' so it is important to know the quality of the product when you receive it. This may involve asking the supplier some questions so that you can confirm that the food coming in is safe and suitable. You will need to check the quality (including sell-by or best-before dates) and any temperature of the food as soon as it is delivered. Check that chilled food is below 5°C, frozen food is hard frozen. If you order hot food it should be above 60°C. It is best to use the thermometer that your workplace has as well as check the one used by the delivery driver.

The example on the right is a basic food safety check from the delivery, to the sale of pies. This is not a Risk Based Measure but includes some critical control points (riskiest things) that need to be checked to keep the food safe.



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Safe Pies Check List

Safe Delivery

- ✓ Buy from an approved supplier.
- ✓ Check for any visible contamination (mould, dirt).
- ✓ Check temperature which should be less than 5°C if chilled or more than 60°C if hot.
- ✓ Frozen food should be hard frozen
- ✓ Check the 'sell-by' date.

Safe Storage

- ✓ Place pies immediately into freezer or chiller.
- ✓ Check freezer hard freezing (below -18°C is ideal)
- ✓ Check chiller is below 5°C - check daily and keep record.
- ✓ Ensure good stock rotation (first in, first out).

Safe Cooking

- ✓ Defrost pies in chiller overnight or microwave.
- ✓ Heat pies in oven or microwave until food is piping hot (+75°C)
- ✓ Follow suppliers cooking instructions when given.

Safe Hot Holding

- ✓ Preheat pie warmer to at least 60°C.
- ✓ Transfer pies immediately from oven to preheated pie warmer.
- ✓ Check pie warmer temperature daily and record that it keeps pies hot at more than 60°C.

Discarding (Better Safe than Sorry!)

- ✓ Throw out any hot pies not sold that day as they will have lost quality.
- ✓ You must immediately recall (get back) any pies if they are sold and found to be bad.

The Seven HACCP Principles

1. Analyse the hazards

Know what hazards (safety problems) that the food may have and the ways to eliminate, correct or reduce them. Do this at each step in the process from the very start (farm) to the very end (fork).

2. Identify the critical control points

These are the critical, (riskiest) food safety points. Again they are from the origin of the food, through the various handling and processing steps, to delivery to the consumer for eating.

3. Establish preventive measures

Set the critical safety limits for each control point.

4. Check the critical control points

Set-up procedures for checking food safety. You can't afford to leave things to chance!

5. Act to correct problems

Action must be taken when your checks shows that a critical safety limit has not been met.

6. Ensure your safety checks are OK

You need to double check that all your monitoring systems are working properly. Make sure someone in charge knows if they're not, and that they do something to fix the problem!

7. Keep records

Like a recipe, you need to show how, (to your boss and/or your verifier) that your food safety procedures work.

"Get the Knowledge, Make the Commitment, Walk the Talk"



Check these points against the Safe Pies check list on the previous page

1 The main hazards to food are: germs, such as from unwashed hands or by contamination of raw food to cooked food; chemicals, such as cleaning fluid or rat poison; or unwanted and/or dangerous things, such as glass or metal fragments.

2 We need to know the points at which the food risk can be eliminated corrected or reduced. Examples are refrigeration, cooking, and packaging.

3 For a cooked food, this would include setting the minimum cooking temperature and time required to ensure any harmful germs are killed.

4 Such checks, (monitoring) include determining what, when, how and by whom cooking time and temperature should be checked. What is to be recorded, (written down) and what has to be done and by whom, and if things need correcting.

5 For example, re-cooking or disposing of food if the minimum cooking temperature is not met.

6 This could include testing your oven thermometer and/or thermostat to verify that a cooking unit is working properly.

7 This would include records of hazards and their control methods, checks done and things fixed. Make sure you can repeat good things and change bad things.

Examples Critical Control Points

Safe cooling:

HACCP requirement is to cool potentially hazardous food from 60°C to under 5°C within 6hrs in the following two stages:

- Cool down from 60°C to 21°C in under 2hrs (to achieve this you will need to place the food in a refrigerator or ice bath as soon as food stops steaming, or is cool enough to hold, (around 45°C to 50°C).
- Then get from 21°C to safe temperature of <5°C in under 4hrs (6hrs total cool down).
- To avoid prolonged time measuring, a best practice is to develop a proven cooling method so you just need to check at the 2hr and 6hr CCP temperatures.

Safe storage:

- Keep frozen foods solid. Recommended is a weekly check that food is below -12°C and preferably colder than that, (-18°C is a good target).
- Check and record cold-hold temperatures daily to ensure chilled foods are held below 5°C.
- Keep foods in original packaging or if opened keep in enclosed container/wrapped and date mark (use by).
- Throw away food that is passed its use-by date.
- Check food that is just passed its best before date is OK to use otherwise discard it. (If in doubt – throw it out!).
- Keep dry goods dry (and protect from vermin).

Safe cook/reheat:

- Check and record that poultry and minced raw meats, (sausages, burgers and meatballs) are cooked safe, (cooking to 75°C in the centre of thickest piece).
- Reheat quickly to get from 5°C to 60°C in under 2hrs.
- Recommend 're-cook' to at least 75°C to ensure bugs are killed.

Safe sale:

- Keep potentially hazardous foods either below 5°C or above 60°C. (Keep out of the 'danger zone').
- Keep time in the 'danger zone' less than 2 hours if bringing back to a safe temperature (below 5°C or above 60°C).
- If potentially hazardous food exceeds 2hrs in danger zone it must be thrown away. If food has been kept cool, however, then it is still safe for a further 2hrs for consumption before discarding.
- Keep food protected from customers, (prevent hand/clothing touching food, cough/sneeze over food) by covering and having tongs if self-serve.
- Learn about allergens in food and how to respond to customers that request non-allergy foods.
- Keep unsafe food (e.g. expired dates, damaged, or held too long at unsafe temperature) separate from food to be used and/or food for sale.
- Know where your food is sold in case you need to recall if necessary.



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People

Personal hygiene

Hand hygiene

Health and Sickness

Knowledge and training

Jewellery & perfume, hair and smoking

Protective clothing

Food gloves

Personal Hygiene

Most people carry some type of food poisoning organism at one time or another. Safe food handlers have a moral and legal responsibility to observe high standards of personal cleanliness to ensure that they do not contaminate food. Always start each day with a shower and hair shampoo.

Work clothing needs to be appropriate and clean and will include hats for or hairnets for some food workers.

Hand Hygiene

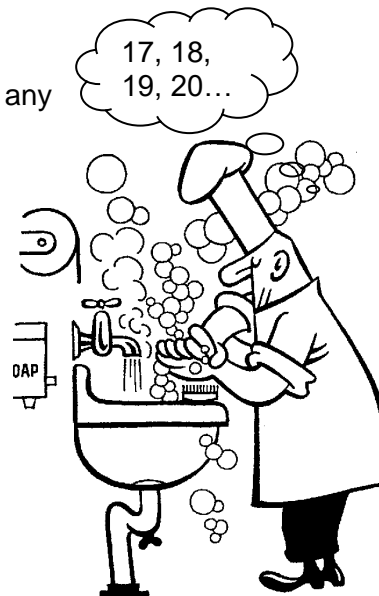
As your hands are often in direct contact with food, they are the main routes for passing on food poisoning bacteria. Hands must be kept very clean by washing **thoroughly**¹ in warm water with liquid soap. (It is best to use soap that can also kill germs)² Hand sanitisers have become a popular additional tool to help with hand hygiene.

It is very important that your hands are well dried after washing them. Use disposable paper towels, hot air dryers or continuous roller towels³.

Food handlers must wash their hands regularly throughout the working day and especially:

- after visiting the toilet;
- on entering a food room and before handling any unwrapped ready to eat food or food equipment;
- after handling raw food (meat, vegetables etc.)
- after touching your face or hair⁴;
- after eating, smoking, coughing or nose blowing;
- after handling waste food or rubbish;
- after handling cleaning chemicals.

As fingernails easily pick up dirt and germs, they must be kept short and thoroughly cleaned by using a nailbrush when hands are washed.



Notes

¹Washing and drying your hands **thoroughly** means that you should count slowly to 20 while washing and then drying your hands to make sure you have given them a really good clean.

Commercial hand cleaners that are suitable for food workers often contain anti-bacterial agents.

Whilst these products may better clean the skin on your hands, you must never forget to use a nailbrush to clean out the dirt from under your fingernails.

Note

²Hand sanitisers are not the same as hand cleaners. Sanitisers help by reducing germs on your hand, but they do not remove physical dirt or contaminants. But they can be useful as an interim additional measure between required hand-washing.

Note

³Using single use type roller or paper towels are the only way to keep your hands clean.

If you use a reusable hand towel you will probably have as many (or possibly even more) germs on your hands than before you washed them!

Note

⁴Often we have unconscious habits involving touching our face and head (itches and sweating).



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Health and Sickness

General Health of Food Workers

Food handlers should be in good health. Any food handlers suffering from **diarrhoea**, (the trots) **vomiting** or illness that that is likely to be transmitted through food **must not** be at work.²

Food handlers who have symptoms of food poisoning or live in the same household as someone who is known to have suffered from diarrhoea or vomiting, must also report to their boss at work and see their doctor.

Food handlers who still have food poisoning germs in their bowels must not return to food-handling duties without the doctors OK³. Persons with skin infections, sores, heavy colds, and ear or eye discharge must not be at work if they are food handlers until their health problem has cleared up.

The Nose, Mouth and Ears

Up to 40 percent of healthy adults carry a particularly nasty food poisoning germ called Staphylococci in their nose and mouth.

Coughs and sneezes can carry droplet infection for a considerable distance and persons with bad colds should not work in food rooms. Disposable single-use paper tissues are preferable to handkerchiefs. Picking or scratching the nose is an unacceptable bad habit.

As the mouth may also have harmful germs, food handlers should not smoke, eat sweets, chew gum, taste food with the finger or an unwashed spoon or blow on glasses to polish them. Apart from being totally unacceptable behaviour, spitting can obviously result in food contamination.

Discharges from the ears, eyes and nose may contaminate food, and employees must report these health problems to their supervisor or see their doctor.

Note

²The Food Act 2014 requires that there must be procedures to ensure that any staff member or visitor at the place of food business who is known to be, or suspected of being sick, does not contaminate food or food-related accessories

Meanings

'**Vomiting**' in this case means in the absence of other obvious causes, e.g. morning sickness or alcohol poisoning.

'**Diarrhoea**' means other than that associated with conditions such as irritable bowel syndrome, Crohn's disease or ulcerative colitis

Note

³Any food handler who has had diarrhoea two or more times, or any vomiting within 48 hours must seek medical advice and have a faecal specimen tested to identify the cause of illness



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Cuts, Boils, and Sores

Cuts, spots and sores provide an ideal place for germs to grow.

To prevent contamination of food by harmful bacteria, spots or sores must be completely covered by a waterproof dressing; preferably coloured blue or green so that if it accidentally comes off it can be easily seen.

Cuts on fingers may need the extra protection of waterproof fingerstalls to ensure no blood or other infectious material gets on food. Waterproof dressings will also assist in preventing cuts going septic.

The germs in raw foods, (particularly raw meat and poultry) can be a risk to food handlers as they can enter cuts on the skin and can cause severe illness.

Knowledge and Training

It's really important that all food handlers have safe food handling knowledge so that they are aware of the dangers of poor food safety and know how to break the chain of events that can result in outbreaks of food poisoning².



Note

²These 'easy learn notes' will give you the basics of safe food handling.

For additional training, (and especially if you are using the templated Food Control Plan) you can get further Essential Training at my other website **FoodControlPlan.com**

There are also a number of other courses run by that will give you more information.

Whilst you are encouraged to learn more about safe food handling, the most important objective of food safety is to put what you have learned into action!



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Jewellery and Perfume

Food handlers should not wear earrings, watches, jewelled rings or brooches, as they catch hold of dirt and bacteria. Stones and small pieces of metal from jewellery may end up in the food and result in a customer complaint. You might also be upset if it was an expensive item! Food handlers should not wear strong-smelling perfume or aftershave, as it may taint foods.

Hair

Hair is constantly falling out and, along with dandruff, can result in contamination of food. Your scalp often contains harmful germs and must be shampooed daily. Food handlers should wear the right kind head covering which completely covers the hair.

Combing your hair and fixing your cap or hair net if you have one should only be done in non-food rooms such as the toilet or cloakrooms. Be careful to remove any hairs that end up on your shoulders as these can also get into the food. (Remember to wash your hands afterwards!)

Smoking

In most countries it is illegal to smoke in food rooms. Apart from the obvious disgust customers would have seeing someone smoking while preparing food, there is a real risk of cigarette ends and ash contaminating food. Also people touch their lips whilst smoking, which may transfer their germs onto food.

Other equally bad things about smoking is that it makes you cough, (perhaps over food). Cigarette ends contaminated with spit could be placed on working surfaces and you're also likely to burn the surface and then you may have to pay for a new one!

Your non-smoking work mates will not be happy if you pollute their air.

And – oh yes –smoking will kill you!



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Protective Clothing

All food handlers should wear clean, washable, light-coloured over-clothing¹. Over-clothing should be appropriate for the work being carried out and should completely cover ordinary clothing. Jumper and shirt sleeves must not protrude. If short-sleeved overalls are worn, only clean forearms must be visible.

Staff must be aware that protective clothing is worn to protect the food from risk of contamination and not to keep their own clothes clean. Dust, pet hairs and woollen fibres are just a few of the contaminants carried on ordinary clothing.

Outdoor clothing and personal effects must not be brought into food rooms, unless stored in suitable lockers.

Food Gloves

Food gloves can give a dangerously false sense of security. Use of food gloves does not stop the need for hand washing.

Even disposable gloves can transfer germs just as quickly as bare hands.

Food gloves can't be worn instead of washing your hands. In fact you must wash your hands immediately before putting gloves on and again after taking gloves off.

Putting plastic gloves on unclean hands for long periods can result in the wearer getting nasty skin infections.

Best plan is to use them once for a specific job. For example; handling ready to eat foods, or where there could be contamination such as like handling raw meat or cleaning up waste or using strong chemicals like undiluted cleaning and/or sanitising fluids.) After use throw them in the bin!

Also make sure you use only 'food safe' gloves. Some plastics like latex can cause an allergic reaction!

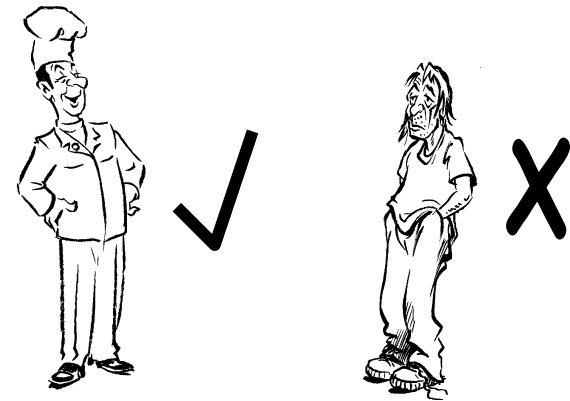
Notes

¹The type of over-clothing needed depends on the type of food business.

For example, food handlers working in a fish factory will need plenty of protective gear, but if you work in a small store, such as fruit and vegetable shop, you may only need an apron. If all the food is pre-wrapped to protect it from contamination, you may need no special over-clothing at all.

If you are handling open food, you should also have a hat or hair net. Otherwise tie your hair back if it's long.

Some types of food workers such as meat carriers must wear head and neck covering to protect the meat and themselves.



"Get the Knowledge, Make the Commitment, Walk the Talk"

Places

The purpose of cleaning

The cleaning procedure

Cleaning schedules

Equipment used for cleaning

Developing a cleaning schedule

Dishwashers

Building design for places used for food businesses

Design of food equipment

Construction of buildings used for food businesses

Water supply

Pest control

Good housekeeping (issues and options)

The Purpose of Cleaning

Unless the equipment that comes in contact with foods is adequately cleaned and **sanitised**, it may be a serious source of food contamination from germs.

The reasons for cleaning:

- to remove the stuff on which bacteria could grow, and so reduce the risk of food poisoning and food spoilage;
- to **sanitise** equipment and surfaces that will come into contact with food;
- to remove waste which would encourage insects or rats and mice;
- to reduce the risk of contamination;
- to have a pleasant, clean and safe working environment;
- to give a good image to customers.

The Cleaning Procedure¹

Cleaning normally consists of four basic stages:

- Pre-clean – remove visible dirt and food residue.
- Main clean – wash with hot water and the correct amount of detergent.
- Rinse with clean, hot water;*
- Air dry or use a single-use drying cloth.

Sanitising normally consists of the additional stages:

- Sanitise -with a food-safe sanitiser;
- Rinse (if sanitiser instructions require)
- Air dry or use a single-use drying cloth.

Meaning of Word

'**Sanitise**' means to remove harmful germs to a level that the equipment is safe to use for food processing and storage.

Note

¹No matter how good the cleaning and sanitising chemicals are that you use, remember that there is no substitute for good, honest, hard work - so get scrubbing!

Note

Sanitising may be done whilst cleaning by sanitising after the rinse procedure but make sure the sanitiser can be used on wet rather than dry surfaces.

Notes

Cleaning must occur between tasks ("clean as you go").

Items must be left to air dry.

Cloths must be changed daily or more frequently if needed.

Used towels (e.g. ones used for floor cleaning) must be stowed for laundering and not mixed with in-use cloths.



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Cleaning Schedules

The Food Act 2014 says you must establish and carry out procedures for cleaning and sanitising places, facilities and equipment.

A cleaning schedule is an effective way of ensuring all equipment is regularly cleaned and will therefore meet the requirements of the Act.

It is a set of instructions that describe everything that needs to be done in order to maintain the premises in a clean and food safe (sanitised) condition

To get started walk through your business and make a list of everything that needs cleaning. Identify how each item must be cleaned, (the cleaning method) and how often this must be done in order to keep food safe and suitable. Identify who is responsible for doing this.

Equipment used for cleaning

Cleaning materials must be clearly identified and stored away from food. They must be regularly cleaned and sanitised.

Cleaning equipment must be kept in good repair and not used for any other purpose.

Chemicals must be clearly labelled, never be stored in a food container and staff using cleaning chemicals must be trained how to use chemicals safely.

Developing a Cleaning Schedule

The list opposite may help you in developing your own cleaning schedule.

High-priority items (sanitising required):

Items that come into contact with food, including slicers;

work surfaces and chopping boards;

utensils, e.g. knives, scoops, tongs;

interior of 'fridges, display cabinets;

equipment with moving parts, e.g. food mixers, slicers and processors;

sinks and soap dispensers; reusable cloths and work clothes;

ice machines; vacuum-packing equipment.

Frequently touched items (sanitising advised):

rubbish bins, broom and mop handles;

door handles, taps, switches and controls;

can openers, telephones.

Other items (sanitising optional but encouraged)

floors, walls, ceilings;

storage areas and freezers;

waste areas, drains, grease traps;

microwaves, ovens, dishwashers;

places where customers handle and/or eat food;

toilets and staff facilities.



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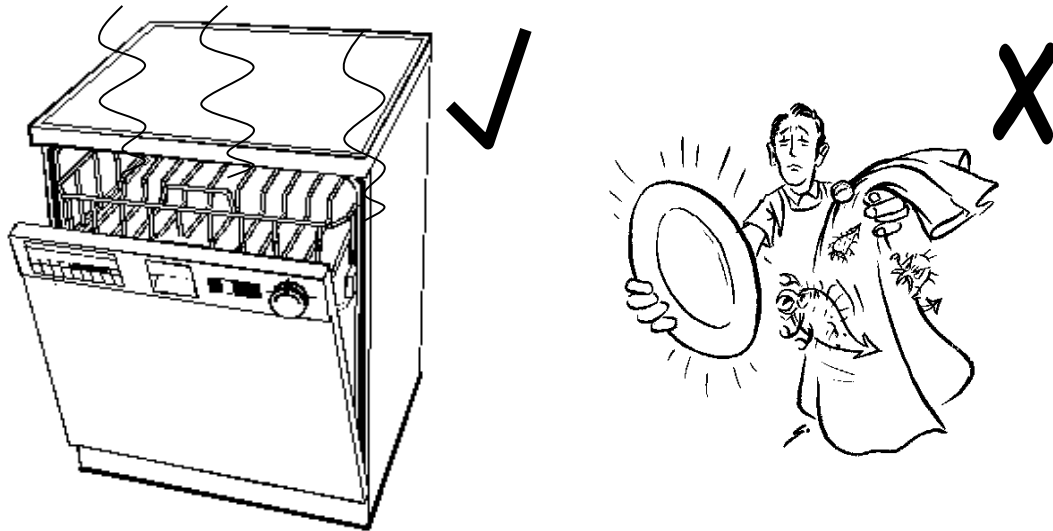
Dish and Glass Washing Machines

Where dishwashers are used they must be operated and serviced according to the manufacturer's instructions

Dish and glass washing machines effectively and speedily clean and sanitise¹ cutlery, crockery and glassware. They are often used in restaurants, cafes and bars.

The machines should be manufactured to effectively wash and sanitise things. The scalding rinse water temperature makes sure that not only the utensils are virtually sterile, but also that they are hot enough to air dry, therefore avoiding the use of drying cloths or tea-towels which can re-contaminate them².

The machine must be maintained and regularly serviced to ensure that it is operating effectively and maintaining sanitising temperatures.



Note

¹Many commercial dish/glass washers have an inbuilt hot water tank set at 83°C for the final rinse water. This means things are sanitised and hot enough to provide faster drying. Some machines have a chemical sanitising cycle instead of using hot water

Tip

Rinsing excess amounts of food off first will ensure no baked-on food remains.



Note

²Leave the things in the dish washing machine until they have air dried, this saves having to use a drying cloth which is likely to contaminate them unless it is a single use cloth.



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The Design of Buildings used for Food Businesses

The design and layout of all types of food buildings must take account of any legal requirements relating to their construction and facilities, (such as the Building Act).

The Design of Food Equipment

The materials from which food processing equipment is made are very important. Materials used in the product areas should be corrosion resistant (rust-free) and smooth. No materials should be used that may contaminate the food product. Only food grade materials should be used.

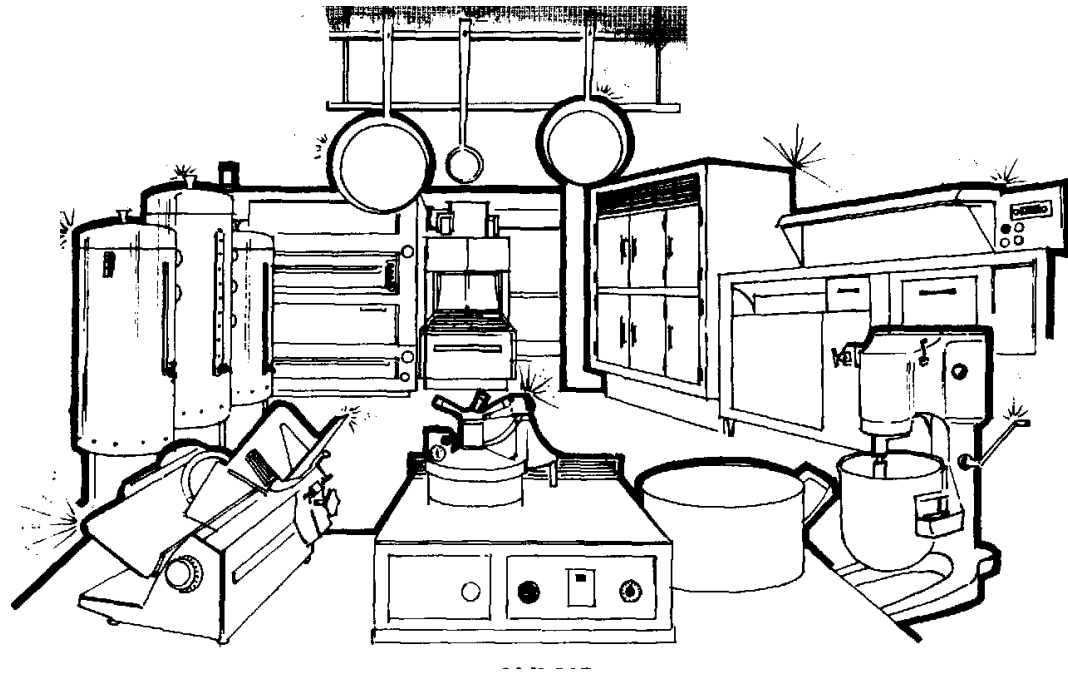
Enough space for easy and safe operation and maintenance must be provided between each piece of equipment and between equipment and walls.

Areas beneath the equipment area must have access for maintenance by lifting the equipment above the floor.

Remember these important points.

Food equipment should:

- be suitable for the job for which it will be used;
- be easy to clean and inspect;
- be able to protect food from contamination;
- have no 'hard to reach' spots where food scraps, grease and dirt can build up;
- have no places for rats, mice or insects to hide;
- be safe to use.



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Construction of Buildings for Food Businesses

In New Zealand there are legal requirements for how new food places are built. You may require a Building Consent and possibly Resource Consent. The following may be used as guidelines but check with your food safety verifier and/or Council first:

- **Construction** - good state of repair, no access or hiding places for pests;
- **Floors** - smooth, *impervious* material, suited to process carried out; for some processes 'coving' can be an advantage;
- **Walls** - smooth non-absorbent; easily cleaned material; impervious where wet processing; light colour finish;
- **Ceilings** - much the same requirements as for walls; no exposed ledges or beams that might be a dust trap; not less than 2.4 m [8 feet] high at any part;
- **Lighting** - natural or artificial; adequate to allow good cleaning and inspection; no shadows or glare¹;
- **Ventilation** - natural/artificial as necessary, to maintain comfortable working conditions and prevent condensation and odour;
- **Space** - sufficient to allow good cleaning and work flow;
- **Changing facilities** - adequate lockers, hangers; a separate room may be required if there are a large number staff;
- **Toilets** – close to, but not in, work places and in good working order and of course clean²;
- **Wash hand basins** - close to where needed; 1 basin required for about every 10 staff and also in or next to all toilets³;
- **Water supply** - hot and cold; adequate piped supply and approved storage capacity;
- **Plumbing** - sinks, and other appliances as required by your Food Safety Verifier and/or Council;
- **Sewage disposal** – proper drains in good condition plus any special food or grease traps;
- **Yard** - impervious surface to yard and paths; adequately drained; reasonable access to the yard⁴.

Meaning of Words

'*Impervious*' means waterproof - such as vinyl flooring or a concrete yard.

'*Coving*' means that the junction between floors, permanent fixtures and walls are rounded so that there are no sharp corners.

Note

¹Although natural lighting is the best be sure not to get direct sun into the room as this could affect food by warming it.

Note

²Every toilet should have a wash hand basin close by and preferably within the compartment.

Always have a spare toilet roll (or two) in the compartment!

Note

³Remember each wash hand basin must have soap, nailbrush and single use paper or roller towels.

Note

⁴Yard areas used for rubbish bin storage should have a raised impervious stand to assist cleaning and stop rats and other pest getting in the bin.



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Water Supply

Perhaps this is something that you have not fully considered but the water supply to the food business is a critical issue both in terms of quantity and quality.

Water may carry harmful germs and contaminants that can cause illness. The water may be contaminated at the supply or during on-site storage and distribution around food premises.

If you have a limited water supply this will affect what processes you can and cannot do. For example a food stall may have a container for water which will limit the amount that can be used when the stall is at, say, a market. However jobs that require a lot of water usage such as end of day cleaning can be undertaken back at a support base that has adequate water supply.

For those whose businesses are in cities or towns it is likely that your water supply will come from a safe source and has been treated to ensure that the water is of a potable standard. These types of supplies are often referred to as public supplies.

Those whose businesses are in country areas or smaller towns may find that their water supply may have limitations both in quantity and quality. It is more likely to be from a private supply being either a local community supply, or may be a private individual supply serving that one place.

Regardless of the reticulation, it is the responsibility of the food business operator to ensure the safety of the water from the point at which it enters the business's water system.

There is information available from the Ministry of Health's website to help property owners of private water supplies make sure their supply is safe. In any event if the quality of the water supply is in doubt the supply should be fitted with an appropriate treatment system to ensure that the water is safe for drinking and using in food processing.

Meaning of Word

'Potable' means 'safe to drink'

Note

Safe water quality not only applies to water used for drinking and use in food but for things like hand hygiene where unsafe water could contaminate food workers hands.



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Insects

There are many insects that can put food poisoning bacteria onto food.

Flies and cockroaches are the worst because of the way they eat food and the filthy places they visit.

Flies love really nasty things like dog faeces (poo). They charge around fresh ones and pick up huge numbers of germs on their hairy legs and bodies. Flies also have the most disgusting habits. They leave little spots of fly droppings (poo) everywhere and they feed by vomiting (throwing-up) onto the food as they feed.

Cockroaches often live in drains and like to feed on rotting garbage. They don't like the light and hide well away in dark little places in food rooms. During the night they come out and carry food poisoning germs on their legs and bodies to food and equipment on which they walk. They also vomit on food to digest it before sucking the contents back into their stomach.

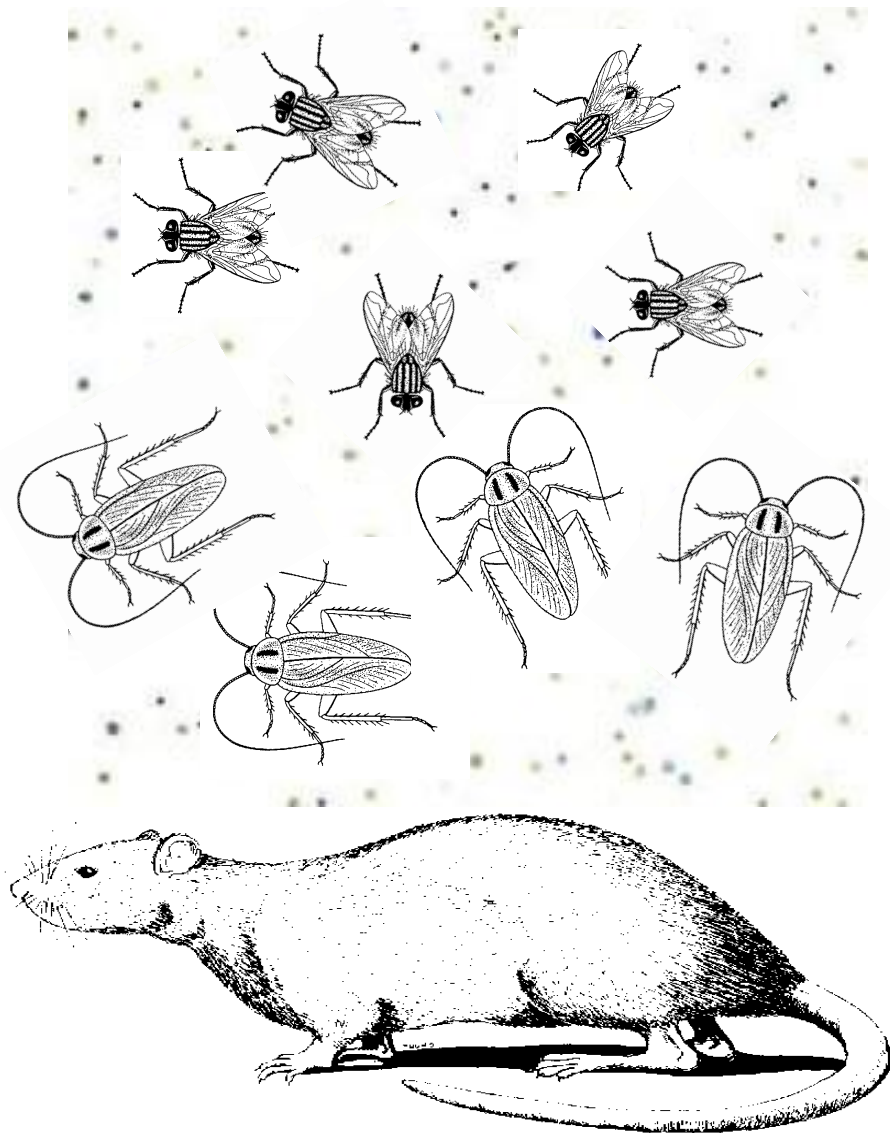
Use of insecticides in food rooms must be done carefully. Insecticides are poisonous chemicals and must not get on or near food or food equipment. Careless use of sprays often means dead insects ending up in food.

Rats & Mice

Both rats and mice have food poisoning germs in their poo (droppings).

Contamination of food is often caused by their droppings, urine (pee), hairs and with their chewing (gnawing). Food-equipment contaminated by rats or mice must be thoroughly cleaned and disinfected before use.

Food that is even slightly suspected of being contaminated by rats or mice must be destroyed.



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Control of Insects, Rats and Mice

These pests will really take a hold if they can get into a building that has both food and places for the pests to hide. If you remove any one of these things it prevents their survival, and is the first line of defence against possible **infestations**.

Basic control of an infestation involves:

- access - doors, windows and screens must be kept closed to prevent entry;
- limiting access to food waste - by keeping the place clean and tidy;
- reducing places to hide - by care in the design, maintenance and pest proofing of buildings.

Good Housekeeping

To reduce the risk of infestation it is important not to give pests the conditions they like - so make sure that:

- the place inside and out is kept in a clean and tidy condition;
- spills are cleared up straight away;
- food is stored off the floor and clear of walls, which will help you check for pests;
- all food should be checked regularly and damaged stock removed;
- food is kept in rat/mice proof containers and lids are always on;
- all deliveries of goods and food are checked for infestations;
- yards are kept clear of weeds, old equipment and other waste etc;
- evidence of pests or pest damage are reported immediately and so that a control programme can be started.

Note

'**Infestation**' means having pests in high numbers.



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Physical and Chemical Control

Although very important, control of pests by good housekeeping may not be totally successful.

You will then have to get rid of them using some form of **eradication** and this may involve a specialised pest control firm.

Physical methods that trap the pests are usually preferred. Poisons may cause pests to die in food or some inaccessible place. Poisons are a contamination risk to food so care is required in using them.

Unfortunately physical methods are not always successful and poisons have to be used.

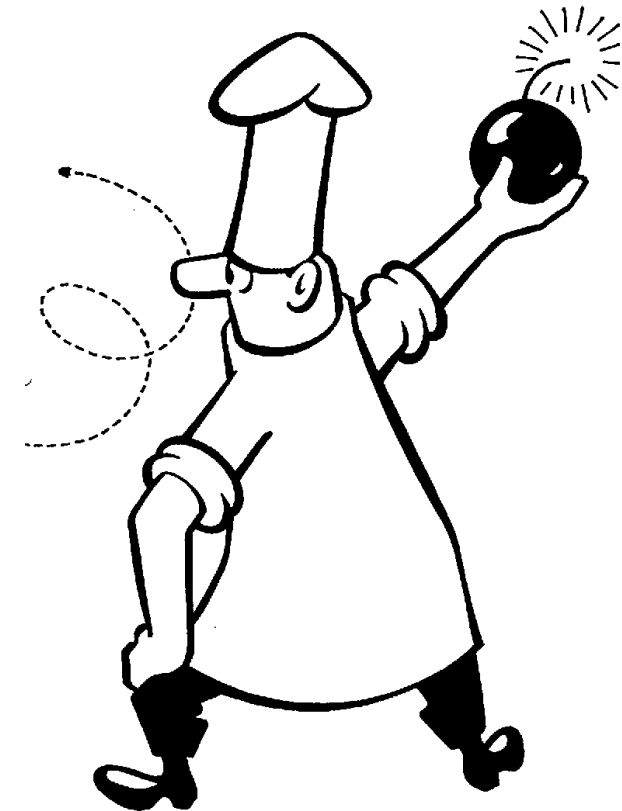
Great care must be exercised when using poisons. You must be extra careful when using insect sprays. Food must always be removed. A thorough clean is necessary after use to avoid the risk of contaminating food.

Infestations of food rooms should be dealt with immediately and food handlers are strongly recommended to seek assistance from a specialist contractor rather than try to do the job themselves.

To ensure pests don't come back take action to fix up the conditions that may have been the cause of the infestation in the first place.

Meaning of Word

'**Eradication**' means method(s) to get rid of the pests that are the problem.



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Animals and Birds

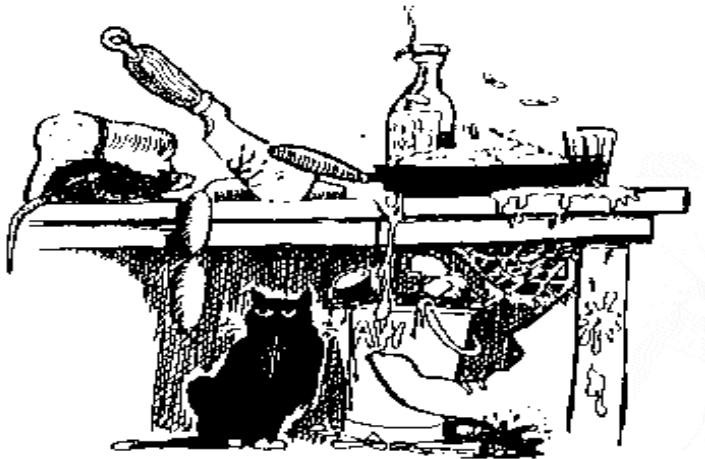
Pets as well as wild animals carry harmful germs on their bodies and in their bowels (guts).¹ Dirt can also get onto food from their feet. Hairs and feathers may end up in the food. Pets must always be kept out of food rooms. Bird poo often gets on food in places like market stalls and open warehouses and has been the cause of several food poisoning cases. Other diseases to people occur because of contamination by birds².

Dust

Dust in occupied places is often from people shedding dead skin, (yuck!). There are always large numbers of germs in dust and these float about in the air². Open food must always be covered and this is really important when cleaning is carried out, especially dusting and sweeping.

Rubbish and Waste Food

Waste and rotting food must be quickly removed from food rooms³. Care must be taken to avoid contamination of food from waste either directly or indirectly. Food handlers must wash their hands after placing rubbish in bins. Always use good quality bins with tight fitting lids for food wastes. Using bin liners will make the job of emptying easier and reduce the amount of cleaning⁴.



Note

¹Many cases of food poisoning and infectious diseases in the home are traced back to pets.

²Birds carry a very serious disease that affects people's lungs.

Note

²It is much better to use a wet mop to clean floors and a damp cloth for shelves. This way the dust and germs are not brushed into the air.

Note

³Food wastes must be removed at least daily - clean waste such as paper, plastic and cardboard should be taken away at least weekly.

⁴Make sure re-useable food waste containers are thoroughly cleaned and sanitized after each time they are emptied.



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Product

Potentially hazardous foods (high risk foods)

Canned foods

Food allergens

Labelling of food

Source of supplies, ingredients, additives and processing aids

Supplying, tracing and recalling food

Packaging materials and food equipment

Potentially Hazardous Foods

'**Potentially hazardous foods**' are those that let harmful bacteria grow on them or in them.

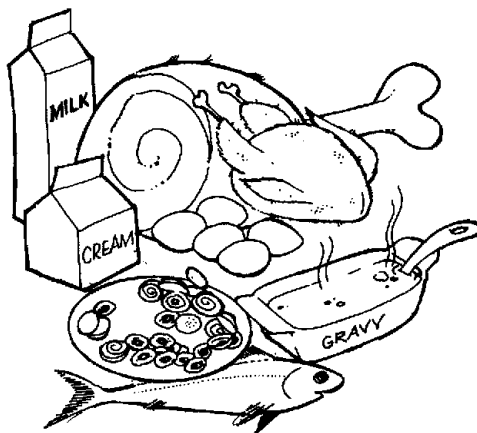
The highest risks are those foods that are eaten without further cooking or other processing that could destroy the bacteria. These foods are usually meat, fish, dairy products and some cooked **cereals**.

Potentially Hazardous foods must be kept in a refrigerator.

They must be handled carefully to prevent contamination. It is very important that they are always kept apart from raw foods such as raw meat, raw **poultry** (especially chicken) and unwashed vegetables.

Examples of potentially hazardous foods are:

- cooked meat and poultry;
- cooked meat products (eg pies) including gravy and stock;
- milk, cream, artificial cream, custards and dairy produce;
- cooked eggs and products made from eggs;
- shellfish and other seafoods;
- cooked rice¹ and other cereals



All of the above types of foods often cause outbreaks of food poisoning.

Cooked meats, including fish, shellfish and poultry, are frequently found to be the source in cases of food poisoning.

The biggest problem is that contaminated food usually looks, tastes and smells completely normal. You have to send the food to a laboratory for examination to find out what germs or other contaminants are in it².

Meaning of Word

'**Cereals**' means things like wheat, rice, barley and oats.

Meaning of Word

'**Poultry**' includes chicken, turkey, ducks and geese.

Note

¹We don't normally think of cooked rice as a potentially hazardous food, but it causes many cases of food poisoning each year. This sometimes happens due to unsafe cooking and cooling and/or from contamination after the cooked rice before serving

Note that dry uncooked cereals are not potentially hazardous foods.

Note

²Because you cannot tell if food will cause food poisoning it is really important that you are a 'safe food handler' so you know how to stop food becoming contaminated.



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Canned Foods

The risk from canned foods is very small compared with the number produced but be wary of the following:

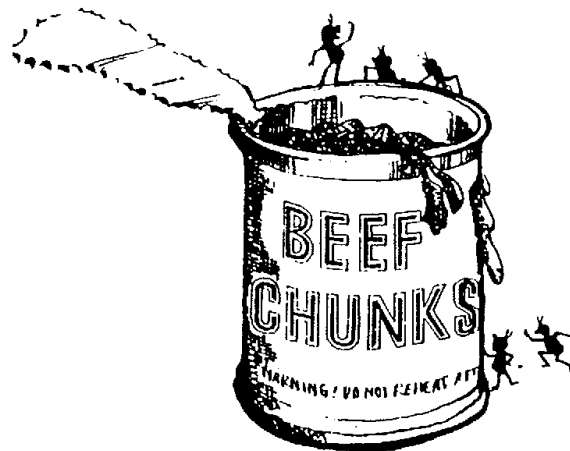
- **blown cans;**
- badly-dented, seam-damaged cans;
- holed or rusty cans;
- very old cans, (several years old).

Remember to clean the outside, (especially the tops) of cans before opening them as they can get dusty and dirty through long storage and/or mis-handling. They could also be contaminated by insects, rats or mice and have harmful germs on the outside of the can.

Canned foods will keep for a very long period if unopened. In most cases you can safely keep canned food 2-4 years, as long as it is kept in a cool, dry place. If kept longer the food will not present a health risk, as long as the can is in good condition, however there may be changes in colour, texture and the flavour of the food.

Remember to always use opened canned food quickly, store in the fridge and preferably tip the contents into a non-metal food container to stop any chemical reaction between the food and the tin.

You can also use plastic lids or film wrap for opened cans, which stops any contaminants from getting into the food.



Meaning of Word

'Blown Can' means one that is bulging under pressure.

In all cases blown cans should not be used.

Of course this does not apply to soft drinks or beer in cans!

Note

Canned food should normally have a vacuum but if germs have got into the food or if acid food like fruit has reacted with the metal can then gas will produce and 'blow' the can.

Don't try opening a blown can they can sometimes explode!



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Food Allergens

There are a number of food allergens and many are common foods or ingredients of foods. It is very difficult to produce foods that are absolutely free of any allergens where the food contains a number of ingredients.

The aim therefore is to provide customers with accurate information on whether a food contains specific allergens or could have traces of an allergen from cross-contact. This way customers are able to make informed choices about the food they, and people in their care, eat.

Food allergies are becoming an increasing concern – both for consumers and those running a food business

According to Allergy New Zealand, around 160,000 New Zealanders are directly affected by a food allergy of some kind. The most common food allergens, responsible for about 90% of all allergic reactions, are the proteins in cow's milk, eggs, peanuts, wheat, soy, fish, shellfish and tree nuts.

Food allergies result in reactions – often within minutes of eating the food. These range from a mild skin rash to life-threatening **anaphylactic shock**. The best way to manage an allergy – is to avoid eating or serving foods that contain the allergen.

Allergen warnings

Food businesses have a responsibility to provide allergen warnings on the labels of pre-packaged foods or, where the food does not require a label, to provide information to consumers on request.

You must provide consumers with sufficient information so that they can avoid potentially life-threatening allergic reactions to a food or an ingredient in it.

The Food Act 2014 requires that food must be produced or processed and handled in ways that minimise the contamination of food and prevents food containing unexpected or unreasonable substances.

Meaning of Word

'**Food allergens**' are foods or ingredients in foods which in some people can trigger an immune system reaction that occurs soon after eating the food. Even a tiny amount of the allergy-causing food can trigger signs and symptoms such as digestive problems, rashes or swollen airways.

'**Anaphylactic shock**' is when, in extreme cases the reaction can be so severe that the person collapses and if not treated death can occur.

Common Allergens

These foods are responsible for over 90 percent of serious reactions.

- cereals containing gluten and their products (eg: wheat, rye, barley, oats)
- shellfish and shellfish products
- eggs and egg products
- fish and fish products
- milk and milk products
- peanuts and soybeans (including their products)
- tree nuts and sesame seeds and their products
- added sulphites (in concentrations of 10mg/kg or more)
- bee products such as royal jelly, pollen and propolis



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Labelling of Food

Food for sale in New Zealand must meet the requirements of the Australia New Zealand Food Standards Code (the Code).

The Food Standards Code requires that all food for retail sale in New Zealand is labelled to: help consumers make informed food choices, protect public health and safety, and to prevent misleading or deceptive conduct.

Labels required for pre-packaged foods

The labelling clearly describes the product in English, is legible and includes:

- quantity marking (e.g. net weight);
- name and address of manufacturer, supplier or importer within New Zealand or Australia;
- appropriate date marking;
- statement of ingredients;
- nutrition information (if needed).

Labels must also meet any food identification requirements and if appropriate:

- any specific standards;
- warning and/or advisory statements;
- instructions for storage and use.

Foods unlikely to require full labels¹

- food made and packaged on the premises from which it's sold;
- food delivered packaged and ready-to-eat at the express order of the purchaser (e.g. delivered pizza);
- food packed in the presence of the purchaser;
- food sold at a fundraiser event;
- food sold from an assisted display cabinet (e.g. deli counter).

Notes

There is a lot of helpful information on the web (such as the MPI website) to enable a food business to develop their own labels to meet the requirements of the Food Standards Code).

For labelling very complex products, a food safety consultant or legal professional will be able to advise you further.

¹Obligations if no label required

Although some food will not require a label, you may still be required to provide certain information specific to the product if a customer asks for it, such as:

- Does this food contain an allergen?
- How much apple is in this apple pie?
- How can I safely store and cook this product?
- When should I eat it by?

Warning!

Under the Food Regulations 2015 there are infringement offence fees (also known as 'instant fines') of up to \$450 if foods are found to be incorrectly labelled.

Infringement offences also apply to some unlabelled foods if they are required to have accompanying information.



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Source of Supplies Ingredients/Additives/Processing Aids

Food suppliers

The food business must take steps to ensure that food is sourced from suppliers who produce, process and handle it in a way that minimises contamination and deterioration of the food.

Record who your approved suppliers are and include contact details so you can get hold of them if needed.

Your food suppliers must be compliant with the Food Act 2014 and all relevant Food Regulations and Standards. Also note that it is illegal to sell certain foods, e.g. home killed meat or recreationally caught seafood.

Although getting cheap food from a 'dodgy' supplier may seem a temptation, the results of any legal action or worse food borne illnesses are really not worth it.

When food arrives have a check-list and record any problems. Reject any food that does not satisfy your requirements. If necessary advise your verifier, registration authority or local Food Safety Officer.

If food arrives outside of normal opening hours make sure that arrangements are made to place the food in a place that is safe from any contamination and that any chilled, frozen or hot food delivered is placed in approved temperature controlled storage

Food Ingredients/Additives/Processing Aids

All ingredients used in food must be safe and suitable to use in food. Any additives such as colouring, sweeteners, preservatives, stabilisers etc and processing aids used to process food, (although not themselves an ingredient of the food) must comply with the requirements of the Australia New Zealand Food Standards Code.



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Suggested delivery checks:

- packages are free of damage;
- fresh produce shows no sign of damage, mould, blight etc.;
- packages are properly labelled with the name and address of the manufacturer or supplier/importer and have a batch code or date mark;
- food is not past its expiry date;
- food has been transported hygienically and food has not been exposed to any hazards (chemicals, machinery etc.) during transportation;
- frozen food is frozen solid when delivered with no sign of thawing or refreezing;
- chilled seafood (not live seafood) is no more than 1°C, and other potentially hazardous food is delivered chilled (cold to touch) or at a temperature recommended by a manufacturer - you must use a thermometer to confirm temperature is OK;
- live shellfish are clean, alive and not damaged with information allowing traceability;
- hot deliveries of potentially hazardous food are at 60°C or above

Note

The Food Code Standards 1.3.1 and 1.3.3 contain lists of the foods that are allowed to contain food additives and/or processing aids, and the food additives/processing aids which are permitted. Food additives/processing aids must not be added to food unless they are permitted

Supplying, Tracing and Recalling Food

Supplying Food

Food supplied to other businesses:

- must be processed and handled according to the procedures identified in the plan;
- must meet the legal requirements for:
 - ingredients - including additives and processing aids and also any allergens;
 - shelf-life -having a use-by or best-before date if required;
 - labelling - accurately labelled for sale by another business; or is accompanied by information that enables the seller to accurately label the food.

Tracing Food

For food businesses that sell food to other business, (rather than direct to the consumer) it is essential that there are systems in place to identify all food sold so that in the event of any problems the food can be recalled from the businesses as quickly as possible.

The Food Act 2014 says that there must be procedures for identifying food and tracing the movement of food from the supplier to the food business; within the food business, and from the food business to the next recipient (other than the final consumer) in the supply chain.

Recalling Food

The food business operator must keep records of any recalled food including the reason for the recall, actions taken, preventative measures to stop recurrence and monitoring of the recall process and must notify the MPI within 24hrs of the decision to recall the food.



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What the law says

The Food Regulations 2015 require:

That the operator must have procedures for

- identifying units of food; and
- tracing food so that food can be traced
 - from the supplier to the food business; and
 - while it is under the control of the food business; and
 - from the food business to the next recipient in the supply chain (other than the final consumer).

The procedures must include the keeping of records that are needed to—

- identify units of food; and
- trace food

What the law says

The Food Regulations 2015 require:

That the operator must have procedures for the recall of:

- food sold by the food business that is not safe or suitable, or whose safety or suitability is in doubt; and
- any food-related accessory sold by the food business
 - that has, or for which there is doubt about whether it has, contaminated food or caused food to no longer be safe or suitable; or
 - for which there is doubt about whether it may contaminate food.

Packaging Material and Food Equipment

Packaging materials, food equipment, tableware etc that come into contact with food, such as labels and tags, must be:

- suitable for their intended use and not able to contaminate or taint food;
- capable of being thoroughly cleaned;
- protected from contamination when not in use.

When purchasing non-food items that will come into contact with food (e.g. display trays, containers, plastic bags, disposable drink cups, takeaway trays etc.) check with the supplier that it complies with either:

- current requirements specified in the Australian and New Zealand Food Standards Code for articles and materials in contact with food; or
- requirements specified in the current US Code of Federal Regulations; or
- any other appropriate international standard recognised as acceptable by MPI.

Any utensil or equipment used to measure, store or pour chemicals must be clearly identifiable and must not be used for any other purpose.

Food must not be put or stored in any container or package that is commonly used for medicine or chemicals.

What the law says

The Food Regulations 2015 require:

Packaging and other food-related accessories

- are able to maintain the safety and suitability of food (to the extent that maintaining the safety and suitability of food is their intended use); and
- do not create or contribute to hazards.

Packaging equipment

Equipment used for wrapping and packaging must be capable of being kept clean.

Tableware

All tableware must be suitable for use and not capable of contaminating food, or imparting lead, antimony, arsenic, cadmium or any other hazardous substance to the food.



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Processes

Preparing and processing foods

Safe food storage

Dry food storage

Refrigerators (correct use, safe temperatures, defrosting and cleaning)

Freezers

Transporting food

Preparing and Processing Food

You must use safe food handling practices for preparing food to prevent food poisoning, for example:

- **Raw food and potentially hazardous food ready to eat food** should be prepared in separate areas with separate equipment. Raw vegetables should be washed thoroughly in a separate sink, which is not used for other things¹.
- **Handling food** should be kept to a minimum. Food must not be left in warm humid atmospheres. Food handlers should keep their places well organised and make sure that working surfaces are kept as clean and tidy as possible. Spills and waste food should be quickly cleared up.
- **Thorough cooking** is important to destroy harmful germs. Food thermometers should be used to check that the centre of food has reached at least 75°C². After cooking, food should be eaten as soon as possible. If the food is to be kept hot before serving, it must be kept above 60°C.
- **Serving utensils** must be stored properly, especially ice cream scoops³. Food placed on tables, such as bread rolls, must not be re-used. All plates and utensils must be clean and dry, and those parts likely to come into contact with potentially hazardous food should not be miss-handled. Things like tomato sauce, sugar, milk etc. should be kept in clean containers, and kept covered if not in sealed containers.
- **Food that is to be refrigerated** should be cooled as quickly as possible and then placed in the refrigerator. It is better to use smaller joints of meat as they cool more rapidly⁴. **Re-warming of potentially hazardous foods** (particularly left-overs) is can be an unsafe practice. If food is reheated, it must be 're-cooked' thoroughly to at least 75°C for immediate consumption. Any reheated food must be discarded, not used later. The time that potentially hazardous food is kept in the danger zone temperatures must be kept as short as possible (maximum total time must be less than 2 hours if warm (above 21°C or 4 hrs if cool below 21°C).

Note

¹In small food places where there is no separate sink for washing vegetables or other raw foods such as raw meats, it's important that the sink is cleaned really well before it is used for anything else.

Note

²Some germs produce toxins, which need to be destroyed by boiling for 30 minutes. Spores may also survive cooking.

Note

³Ice cream scoops must not be stored in water and if you use water to help roll ice cream that water must be changed at least every 2 hours.

Note

⁴Alternatively you can slice the meat hot and place in thin layers on trays to cool much quicker. Things like soups will also cool quicker in shallow dishes less than 50mm [2 inches] deep.

To safely cool food you must get it from 60°C to 21°C in 2 hrs and then to below 5°C in another 4hrs (a maximum total of 6hrs from 60°C to 5°C).



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Safe Food Storage

Correct storage of food is essential for food safety.

You must have satisfactory conditions of cleanliness, temperature, humidity and **stock rotation** otherwise you may get problems of unsafe or spoiled food, and you are more likely to get insect and rat/mice problems.

Any pre-packaged food that has a shelf life of less than 2 years must have an expiry date by law in New Zealand.

Use-by dates are for foods that could become unsafe with prolonged storage and such foods must be removed from sale past its date. Best before dates are usually more to ensure that the food quality is maintained and it is not illegal to sell foods past their date but good practice is to sell them quickly once the date becomes due.

Storage conditions should ensure that food quality as well as food safety are maintained to a high standard. Storage areas must be kept tidy and orderly and the space you have left for storing food must be taken into account when purchasing food.

All deliveries should be checked for temperature (potentially hazardous foods must be frozen or below 5°C if chilled). Otherwise check for freshness, (colour, odour and appearance), any contamination and any evidence of pests/pest damage and any other physical damage (broken/unsealed packaging).

Pre-packaged foods must be checked for labelling and ensure the 'sell by' or 'best before' dates on potentially hazardous foods are well within expected expiry. Check to make sure the 'sell by' date has not been tampered with. Any problems should be notified to your supervisor straight away.

Keep any external packaging that may be dusty or dirty away from food preparation areas¹. Avoid cluttering food storage areas with disused equipment, and other non-food items. In particular do not put any maintenance compounds such as cleaning chemicals in food storage areas.

Meaning of Word

'**Stock Rotation**' means making sure the oldest food is used first. The purpose is to make sure no food is left forgotten on the back of the shelf and all food is used within its expiry date.

The golden rule is 'first in, first out'

Note

¹Cans are often very dusty so make sure they are wiped before opening them otherwise that dirt could go into the food.



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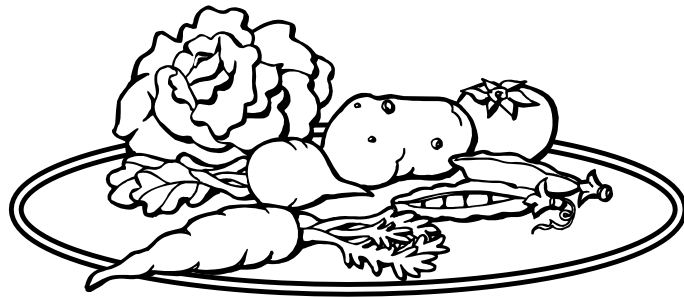
Dry-Food Stores

Rooms used for the storage of dried and canned foods should be kept clean and tidy. They must have good lighting and ventilation, be cool and dry and in good repair to keep insects and rats/mice out. Food should be stored away from the walls and be up off the floor on suitable shelves¹ or in food grade mobile bins. Spillages should be cleared away promptly. All goods should be inspected before placing in storage.

Problems you should be watching for include soiled delivery trays, insects or rat/mice droppings, damaged or leaking cartons, rusty cans and out-of-date stock.

If possible, fruit and vegetables should be stored in dry, cool, well-ventilated areas preferably separate from other food. Fruit should be examined regularly as mould spreads rapidly. Also watch for small flies (fruit flies) that hover around rotting fruit.

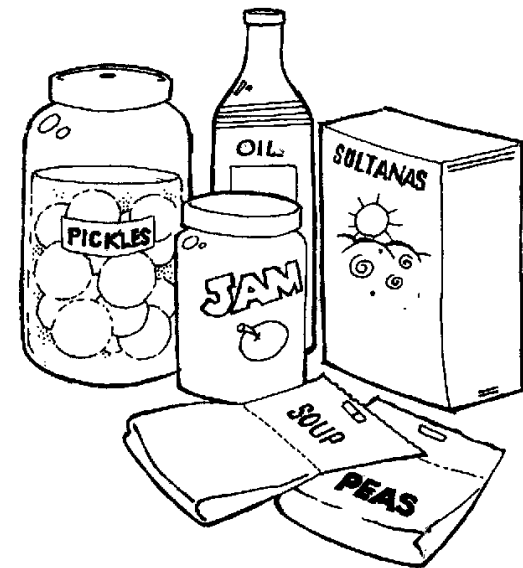
For extended quality storage of fruit and vegetables store around 5-10°C. Processed fruits and vegetables such as ready to eat salads and unpasteurised juices should be considered potentially hazardous foods and stored out of the danger zone (below 5°C),



Note

¹Shelves should be impervious and easily cleaned such as stainless steel or hard plastic laminate but may be of other material such as suitable (untreated and sanded smooth) wood or particle board* if all food is in sealed containers and there is no chance of spillages.

*Particle board swells and deteriorates to become unacceptable if exposed to prolonged moisture so its use is limited. Painting wood and/or particle board helps prevent moisture damage.



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Refrigerators

Refrigerators must be maintained between 2-5°C, which is suitable for most potentially hazardous foods to be stored for up to 2-3 days¹.

The following rules are a guide to safe food refrigeration storage:

- Refrigerate food as soon as possible after cooking (and when cooled) or processing;
- Place prepared food in shallow dishes to ensure it cools quickly;
- Leave space between containers in the refrigerator to allow for good circulation of cold air. Never pack foods tightly together;
- Cover all foods to protect them from possible **taints** or contamination from other foods;
- Food that has been in the fridge the longest (first-in) must be the first-out to ensure good stock rotation of refrigerated food;
- Use leftovers within 24 hours²;
- Meat and meat dishes, fish, milk, milk products and egg dishes should be covered and kept below 5°C³;
- Make sure that anything spilt, especially fluids, is cleaned up really well and straight away;
- Make sure your refrigerators are regularly cleaned and maintained to keep them working well;
- Cooked and uncooked foods must be kept in separate areas and/or containers to prevent the cooked food from being contaminated with micro-organisms from the raw food⁴;
- Refrigerators must not be overloaded, or have large quantities of hot food placed straight into the fridge. This will raise the fridge temperature for some time. Make sure hot foods are cooled quickly (and safely) and place in the fridge only when they have stopped steaming and are cool enough to touch.

Note

¹Putting food into a refrigerator slows down the growth of germs and spoilage. The fridge cannot improve the food quality if it's already bad (unsafe to eat)!

Meaning of Word

'**Taint**' means when a colour, taste or smell that is OK for one food is passed onto another food where it's not OK, (eg. fish next to ice-cream!)

Note

²Reheating leftovers can be a risk, so if you must use them heat them through to at least 75°C, (piping hot) and eat straight away.

Note

³ Keeping raw meat and fish between 1-2°C will keep them fresher longer.

Note

⁴One of the most important safe food rules to remember is to keep cooked and ready to eat potentially hazardous food away from raw foods. The best way is a separate fridge but if using the same fridge always keep cooked and ready to eat foods above and raw foods below.



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The Correct Use of Refrigerators

Most food poisoning organisms, are slow to multiply and produce poisons at temperatures below 5°C. At this temperature spoilage of food by bacteria and mould is also reduced but not prevented. Temperature control is one of the most important factors that prevents food poisoning. Therefore, it is essential that food handlers are trained on refrigerator use and monitoring/recording.

Safe Operating Temperatures

Refrigerators must be maintained to operate between 1°C and 5°C¹. The temperature of the refrigerator must be checked at least daily² and the temperature recorded so your verifier can confirm you are monitoring and maintaining safe temperatures. Remember that in warmer weather fridges may not work as efficiently so keep doors closed as much as possible to conserve energy. Chilled display units sometimes struggle to maintain safe operating temperatures and can be as high as 15-20°C. At this temperature potentially hazardous foods must either be put back into safe refrigeration within 2hrs or, if left on display, removed from sale after 4hrs.

Defrosting and Cleaning

Defrosting and cleaning should be carried out as required to avoid build-up of ice which reduces the efficiency of the fridge. Some units defrost automatically, but all refrigerators should still be cleaned at least weekly. All shelving used for unwrapped, ready to eat food must also be sanitised.

Freezers

Modern freezers should keep food below -18°C, which is low enough so that bacteria will not grow. However over time changes to the appearance and texture of frozen food may reduce quality, therefore try and keep food no longer than 3-6 months in the freezer³. In older commercial and domestic type freezers food temperatures will normally not be much below -12°C so food should not be kept longer than a few weeks (a month at most) in these types of freezer to avoid loss of quality. Food that thaws and re-freezes will deteriorate from ice crystals forming inside the food. Thawing food can also allow germs to grow over time⁴.



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Note

¹You **MUST** have an accurate thermometer to check food is being kept at safe temperatures. Even if your fridge has a temperature indicator, additional monitoring to confirm the reading is good practice.

Note

²For accuracy use an electronic probe thermometer that has been calibrated for accuracy within the last 3 months. Rather than put the probe into food use a glass of water or, (my favourite) a lemon used specifically for temperature checks.

Note

³Always wrap food in freezer bags. This will help stop a condition known as freezer burn caused by dehydration of the food surface by freezing.

⁴Also remember that germs are not killed in the freezer so wrapping foods is very important so as to protect against cross-contamination (be especially careful of contamination between raw meat to cooked meat).

Whilst it is not absolutely necessary to record freezer temperatures food must be frozen solid. A good practice is to check the temperature of each freezer once a week to ensure they are working efficiently, (-12oC minimum is recommended). If the freezer shows it is getting warmer, get the unit checked and maintained BEFORE the food thaws!

Transporting Food

Transporting food presents some additional risks so ask these questions:

- Is the food pre-packaged or otherwise wrapped to prevent contamination?
- Are any of the foods potentially hazardous foods?
- Is the vehicle a purpose-built food van, an adapted vehicle or regular van/car?
- Will you be transporting any other items that could contaminate the food (chemicals or stuff that has a lot of germs such as animals or raw foods)?
- Will you be serving the food at the destination or just delivering it?
- Is the food for immediate consumption or will the customer keep it for later?
- How long will you be 'on the road' for, (especially if more than 2hrs)?

All food must be transported in a way that protects it from contamination.

- Unless within a purpose built food vehicle that has appropriate clean and sanitised storage, foods that are ready to eat, or potentially hazardous foods¹, or dried foods that are loose powders, (eg flour) or granular, (eg wheat) must be in *sealed containers (*sealed = has a lid that fastens to stay closed or closed bag) or other form of containment that adequately protects the food from contamination.
- If you transport food in a regular car/van², the parts of the vehicle where food or food equipment is carried must be clean to prevent contamination of the food and/or container.
- Ready-to-eat food is separated from ³raw food.
- Food is kept separate from anything that could contaminate the food or equipment (e.g. household chemicals, pet food).
- Animals are not allowed access to the parts of a vehicle used to transport food or food equipment.



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What the law says

The Food Regulations 2015 require:

That the operator must ensure that:

- any temperature, humidity, atmosphere, or other condition necessary for the safety or suitability of food is maintained while the food is being transported; and
- corrective action is taken if food is not transported in a manner that maintains its safety and suitability; and
- records are kept of safe transport, and action is taken if there is a problem

Notes

¹Potentially hazardous food are transported and delivered at the correct temperature, (either below 5°C or above 60°C) and checks made before leaving and on arrival to ensure food has been outside the 'danger zone' or is less than 2hrs since checked as OK.

Frozen foods must be transported and delivered frozen solid

²Many businesses deliver food in the back of a regular car or van. Provided the food is protected from contamination and at the correct temperature then the food will still be safe

³As well as raw meats, fresh fruit and veges will have soil and other contamination, (bird poo and sprays)

Paperwork

Easing the 'pain'

Why the need to record?

When do you record?

How long records must be kept

Matters that must be recorded regularly

Things you must record if something goes wrong

Paperwork is a Pain! (Really?)

I have heard some grumbles about the need to monitor and record some information when first talking with food businesses and staff about food control plans. So why do we need to do this paperwork?

Because a fundamental feature of modern food safety programmes based on HACCP is to record¹ and monitor² those parts of the food business processes that are considered to be critical. We do this to ensure that customers get safe and suitable food.

But why the need to record stuff?

Because if it is not recorded there is no proof that it ever was done!

This will be really important if there are any complaints or if some of your customers say that they got food poisoning from eating at your place.

For example:

- How do you know the chicken was properly cooked?
- If you cool potentially hazardous food that has just been cooked for later serving you need to be able to show that it was cooled quickly and safely.
- How do you know if your refrigerators are keeping food at safe temperatures?
- Where do you get your supplies from and was the food safe and suitable when you accepted it?
- If you transport food you need to record how the food was kept safe during the process?
- If you have a private (non-Council) water supply, has the water been tested as safe to drink and/or used for preparing food?
- Also if you need to recall any of your food how will you know which food is the problem one, (that is you need to have batch numbers, dispatch records and also records of food you were able to recall).

Meaning of Word

'*Record*' means both to write down the information and also the actual information that you have available (usually written but can be stored on a computer) to confirm that your food is safe and suitable.

Meaning of Word

'*Monitor*' means the action of checking various procedures, processes and equipment to confirm that it is able to produce safe and suitable food.

Note

In my long experience as an auditor/verifier I have been told by numerous food businesses that the required monitoring under a templated food control plan is just a few minutes a day.

It is likely that monitoring and recording for a national programme (NP) will take the same amount of time as that required for templated food control plans (In some case of low risk NP's such as NP1 or NP2 the monitoring requirement could be significantly less).

You just need to get into the habit of doing it.



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When is it necessary to record information?

This can vary depending on the nature of the process and the 'riskiness'¹ of the food.

For example, things like refrigerators will need to be regularly recorded using a reliable thermometer,² (at least once a day) to ensure that the refrigerator is working OK and it is keeping the food in it at safe temperature.

In other cases you will need to record an actual process such as cooking poultry so the inside temperature is high enough to kill germs. If your business has a large number of processes (for example you cook a lot of poultry) then you can develop a proven method. This way you don't have to record every bird cooked. You just do a weekly verification to ensure your proven method is still good.

Some monitoring may only be needed on a weekly basis such as a check that your cleaning schedule is working and that you have checked for any pests (vermin) that may have come into the places where you prepare or store food.

And then there will be occasions such as a breakdown of equipment, a customer complaint, or food from the supplier was rejected, which will need to be recorded either in a diary, (such as the Food Control Plan diary) where you not only record the problem, but you also record what was done to ensure the problem was sorted.

How long do records have to be kept?

The Food Act 2014 and Food Regulations 2015 states that you must keep your records for four years.

Old records can be stored away so long as someone knows where they are. Current records must be readily available as you will need to show these to a ³food safety officer or your verifier if and/or when they call to check your food business.



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Notes

¹'**Riskiness**' means the potential of the food becoming unsafe or unsuitable.

In terms of safety '**Potentially Hazardous Food**' can cause the greatest risk.

²Having a reliable thermometer is critical to ensure that you are monitoring and recording things correctly.

The best thermometers to accurately check temperatures are calibrated probe thermometers.

Whilst some refrigerators have display thermometers, it is still important to regularly double check that the display is indeed accurate using a probe thermometer.

Accuracy of probe thermometers needs to be checked around every three months by measuring melting ice and then boiling water.

The thermometer must be measuring within 1°C of 0°C, (temperature of melting ice) and 100°C, (temperature of boiling water at around sea level).

³Having records to show a food safety officer may be the most important thing that provides evidence or proof you are producing safe and suitable food.

Not having records leaves your business wide open in the event of any complaints or investigations.

These are matters you must record regularly using an appropriate recording sheet

Products & Processes

Receiving and Sourcing Food

You must record:

- The names and contact details of suppliers
- The type and amount of food received and any batch codes
- The temperature of food at the time it is received, if it is meant to be hot or cold
- Any actions taken if you found the food to be unsafe or unsuitable when you checked it at delivery

Identification and tracing of food

Keep records to enable your food to be identified and traced in case there is a problem with your food. You need to know:

- Where it came from
- What you used it in
- Where it went.

Batch codes or expiry dates can be useful here.

Protection during transportation

Keep Records to show that food is kept safe when it is transported.

If there is a problem, keep records to show the actions you took

Cooking poultry

Poultry is a potentially hazardous food

When you cook poultry keep a record of:

- The product (e.g. drumsticks or whole chicken)
- The date cooked
- The temperature you cooked it to and the time it was kept at this temperature
- What you did with the poultry if it was not cooked properly

Cooling food

You have to be careful when cooling potentially hazardous foods such as chicken or meat. You must keep a record showing:

- The food
- The date the food is cooked
- The time it took to cool it to the required temperature
- What you did with the food if it did not cool quickly enough

Safe storage and display

Keep Records to show that potentially hazardous food is kept at safe temperatures when stored or displayed

If there is a problem, keep records to show the actions you took



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These are matters you must record regularly using an appropriate recording sheet or schedule (cont'd)

People & Places

Staff Training

Record the skills needed by staff to ensure food is safe and suitable.

Keep records to show they have these skills. These are generally kept in 'personnel files'.

Your SafeFoodHandler Certificate can also serve as a record of competency for theoretical training.

Keep an updated cleaning schedule:

A cleaning schedule is a record (and can be anything from a computer file to a whiteboard) which identifies:

- What needs to be cleaned (and sanitised if required)
- How the job is to be done
- How often is it to be done
- And by whom

Record required maintenance for:

- The building
- Equipment
- Facilities

Water supply

If your business uses water that is not from the town supply, a record must be kept of:

- Test results
- Actions you took when any test result did not meet requirements

**Good training =
(knowledge + attitude)
= key to success!**



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These are things you must record if something goes wrong that could risk food safety and suitability
A diary is the most common way to log these kinds of issues and incidents

People, Places & Processes

Contamination Issues (staff)

Keep a record of any instance where personal hygiene, clothing or behaviour compromises the safety and suitability of food (e.g. staff cooked food when they were sick, or allowed hair to get into food).

Contamination issues (chemical)

If chemicals, (e.g. cleaning products) contaminate food record:

- The incident
- The actions you took

Contamination issues (pests)

If you find pests or evidence of pests keep a record showing:

- The type of pest found
- The extent of the infestation

Recall of food or food related items

If your food is recalled keep records of:

- The problem and extent of the problem
- Actions taken to identify and remove the food from sale
- Actions taken to prevent the problem happening again
- Any monitoring of the recall process

Corrective actions

You must keep records of what you did when things go wrong and what you have in place to make food safe.

These should include:

- A description of what went wrong
- How you fixed the problem
- What you did with the food that was affected
- What or who caused it, and whether people need more training
- What you did to stop it happening again
- Any other actions you took



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Postscript (PS)

Last words

Now that you have the knowledge

Respect is the key!

Last Words

Now you have completed these notes you should have a really good understand about what makes food safe and what can make food unsafe. All this good knowledge means nothing unless you apply what you have learned which is all about your attitude ...

This is what is meant by 'walking the talk'. So.....

Respect your food

- don't take chances or push your luck!

Respect your customers

- treat them as you would want them to treat you!

Respect yourself

- for doing a good job!

Best wishes for your future in the food industry!

Bob Askew



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