

## Food Safety and Handling

For food to be safe for us to eat, it must be free from physical, chemical or microbial contaminants. Of these hazards, microorganisms represent the highest food safety hazard to people.

Microorganisms are able to develop resistance to environmental stresses (such as heat and cold), and can grow in many foods and conditions. The social consequences of foodborne disease include both temporary and serious chronic illness and even death.

### What are potentially hazardous foods?

These are foods that might contain food poisoning bacteria and are capable of supporting growth of these bacteria or formation of toxins to levels that are unsafe for consumers, if the foods are not stored at correct temperatures.

Toxins are poisonous chemicals produced by some types of bacteria. Some examples of these types of foods are:

- raw and cooked meat or foods containing meat, such as casseroles, curries and lasagne
- dairy products, for example, milk, custard and dairy based desserts
- seafood (excluding live seafood)
- processed fruits and vegetables, for example, salads
- cooked rice and pasta
- foods containing eggs, beans, nuts or other protein rich foods, such as quiche and soy products
- items that contain the above mentioned foods, such as sandwiches and rolls

### What is a good temperature to store my food at?

Temperature control means maintaining food at a temperature that minimises the growth of infectious or toxic micro-organisms in the food. The temperature of the food must be either:

- 5°C or below
- 60°C or above
- another temperature – if the food business demonstrates that maintenance of the food at this temperature will not adversely affect the microbiological safety of the food

### Why should I keep my food below 5°C or above 60°C?

Bacteria can grow to unsafe levels between 5°C and 60°C this is called the **Temperature Danger Zone**.

- **below 5°C** - Low temperatures prevent food poisoning bacteria, which may be present in the food, from multiplying to dangerous levels
- **above 60°C** - High temperatures will kill bacteria and viruses

### What should I do if my food has been kept in the Temperature Danger Zone?

If your food has been stored outside of these safe temperatures, use this guide as to whether to keep your food or to dispose of it:

- **less than 2 hours** - Refrigerate or use immediately
- **between 2 hours and 4 hours** - Use immediately
- **more than 4 hours** – Dispose of the food

## How do I safely cool or freeze hot foods?

According to the Australia New Zealand Food Authority cooked food must be cooled:

- **within 2 hours** - from 60°C to 21°C, and
- **within a further 4 hours** – from 21°C to 5°C

Ideas for achieving this cooling rate are to:

- divide the cooked food into smaller portions/containers
- place the food into shallow (less than 5cm deep) containers
- locate the cooling food in containers on the racks within the fridge or cool room and not on solid shelving or the floor

## How can I thaw frozen foods safely?

Ready-to-eat frozen food should be thawed in the refrigerator or in the microwave, not on the kitchen bench at room temperature. The reason for this is that microbial growth grows quickest in the **Temperature Danger Zone**. See [why should I keep my food below 5°C or above 60°C?](#)

*Please Note:* ensure that thawing meat does not drip onto other foods.

## What is cross contamination of food?

Cross contamination occurs when bacteria and viruses are transferred from a contaminated surface to one which is not contaminated.

## How can this occur?

The bacteria and viruses can come from people, work surfaces or equipment, and other foods. For example, this could occur when bacteria from the surface of raw meat, poultry and raw vegetables with visible dirt (such as unwashed potatoes), are transferred onto ready to eat food, such as green salads, rice or pasta salads, cooked meats or poultry and even fruit. The bacteria on the raw food are killed when the food is cooked, but the ready to eat food is consumed without further cooking, bacteria and all.

## How can I prevent cross contamination of my food?

These are some tips to help you avoid cross contamination:

- separate raw and cooked food during preparation or handling
- wash and dry your hands thoroughly after touching raw meat and chicken
- thoroughly clean and sanitise all utensils, equipment and surfaces after preparing raw food and before contact with other foods. If possible use a separate cutting board specifically for raw meat and chicken
- store raw meat and chicken at the bottom of the fridge in a sealed food grade container so it can't drip onto other foods

## **Food handling**

It is important that people working in the food industry understand that hands, certain utensils and equipment require cleaning and sanitising in order to ensure the safety of the food, minimise the potential for the spread of harmful micro-organisms and to maintain a safe working environment.

### **How often should I wash my hands?**

Unwashed or poorly washed hands are the most common way to transfer bacteria & to food. Food handlers should always wash their hands:

- immediately before working with ready-to-eat food after handling raw food
- immediately after using the toilet
- before they start handling food or go back to handling food after other work
- immediately after smoking, coughing, sneezing, using a handkerchief or disposable tissue, eating, drinking or using tobacco or similar substances
- after touching their hair, scalp or a body opening

### **How should I wash my hands if I handle food?**

- use the hand washing facilities provided by the business
- clean your hands thoroughly using soap or other effective means
- use warm running water
- dry your hands thoroughly on a single use towel or in another way that is not likely to transfer disease-causing organisms onto the hands

### **What equipment needs to be cleaned and sanitised?**

The Food Standards Code requires a food business to ensure that certain equipment is in a clean and sanitary condition. This requirement applies to the following:

- eating and drinking utensils immediately before each use
- the food contact surfaces of equipment wherever the food is likely to be contaminated

### **What is the difference between cleaning and sanitising?**

Cleaning means the removal of visible dirt or residual food matter. It can leave behind bacteria that are too small to be seen.

Sanitising requires the use of heat or chemicals to destroy any dangerous bacteria that might remain

Cleaning and sanitising should usually be done as separate processes. A surface needs to be thoroughly cleaned before it is sanitised as sanitiser effectiveness is reduced in the presence of food residues and detergents

## **Food allergies**

### **How do I know if I have a food allergy?**

A food allergy is an abnormal immune reaction to a food that is harmless for most people. Antibodies against the food are produced so that when the allergic individual eats the food, histamine and other

defensive chemicals are released causing inflammation. These chemicals trigger allergic symptoms that can affect the respiratory system, gastrointestinal tract, skin or cardiovascular system.

### **What foods commonly cause food allergies?**

Foods that are most commonly associated with allergies (*please note this is not a complete list*):

- peanuts and peanut products
- tree nuts and tree nut products
- egg and egg products
- milk and milk products
- fish and fish products
- crustacean and their products
- sesame seeds and their products; and
- soybeans and their products.

These eight account for around 90% of allergic reactions to food. Recently, lupin bean flour has been reported as a cause of severe allergic reactions. (Lupin is a legume that contains proteins similar to those present in peanuts.)

Royal jelly, bee pollen and propolis can also cause allergies in susceptible people. Some people with latex (natural rubber) allergy have associated allergies to certain fruits and vegetables.

### **Food labelling**

#### **Why is food labelled?**

Food labels provide general handling information about:

- the name of the food manufacturer
- the date it was produced
- the food ingredients
- potential allergens contained in the food
- the 'Best Before' date

#### **Why is some food not labelled?**

Some food offered for sale or for catering is exempt from labelling. This exemption applies in the following instances:

- when food is unpackaged
- when food is contained in an 'inner' package, not designed for sale without the outer package
- when food is made and packaged on the premises from which it is sold (eg. in a deli)
- when food is packaged in the presence of the purchaser
- whole or cut fruit and vegetables in a package which displays the nature and the quality of the food (except for sprouting seeds)
- delivered packaged and ready for consumption at the order of the consumer (e.g.. a pizza delivery)
- food that is sold at a fundraising event

However, all these foods must still either display warning and advisory statements next to the product or supply this information upon a consumer request.

## **What information does a food label contain?**

The Food Standards Code states that all food labels must identify the following information:

- name and/or description of the food
- identification of the 'lot' number (Food Recall information)
- name and Australian street address of the supplier of food (Food Recall Information)
- list of ingredients
- date mark
- nutrition information panel (NIP)
- country of origin of the food
- warning and advisory statements

## **Where can I get more information about food safety?**

For more information please contact the following:

- [NSW Food Authority](#)
- [Food Standards Australia New Zealand](#)
- [Council Customer Service Centre](#)