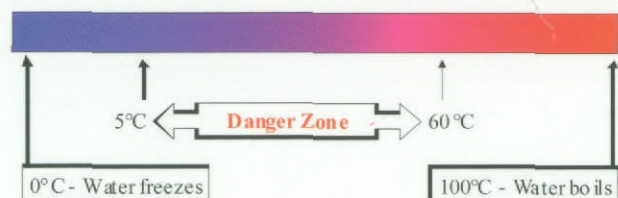


Fact Sheet 1: Temperature Monitoring

Key temperatures



5°C to 60°C has been specified as the danger zone for food. This is the range in which micro-biological growth can occur quickly. If food is left too long within this temperature range then potentially deadly micro-organisms can grow.

Heating food above 60°C will kill most micro-organisms. It will not however, remove the toxins that may have been introduced. Cooling food to below 5°C will almost stop the growth of micro-organisms.

The Australian New Zealand Food Standards Code states that if you are receiving, storing, processing (including defrosting and preparing), cooling, reheating, displaying and transporting potentially hazardous foods then you must be able to prove that you have not exposed the food to this critical temperature range for too long.

"Potentially hazardous foods"

Any food that may contain food poisoning bacteria are classed as "potentially hazardous". They include meat, dairy products, seafood, processed fruits and vegetables (including salads), cooked rice and pasta, foods containing eggs, nuts and other protein rich foods, and items that contain these foods (e.g. sandwiches).

Time and temperature

Food will be exposed to temperatures between 5°C and 60°C at times. The critical part is to ensure that this time is kept as short as possible. This has implications for the following:

Receiving food

If receiving hot, cold or frozen food then it must be at the required temperature when you receive it. If it is outside the temperature range, then you have no idea how long it has been too warm/cold and it should be rejected.

If it has travelled a short distance and you know it was correctly stored by the sender then it may be acceptable (seek additional advice).

Preparing food

Take small quantities of food out of the fridge at any one time, and replace them as soon as possible.

Cooling food

When cooling food, the standards actually specify the maximum time you can take. The temperature must drop

- from 60°C to below 20°C within 2 hours
- from 20°C to below 5°C within 4 hours

The shape and size of the container will play an important part in this. Avoid large containers if possible. Also flat containers are better than square block shapes. Consider cutting large chunks of meat into smaller chunks.

Also, if the fridge is at 5°C then it is impossible to meet these time frames. The fridge must be cooler than 5°C for the food to drop below 5°C on time.

Serving food

If food is to be served between 5°C and 60°C (e.g. at room temperature) then warm it up as close to the time of being served as possible.

Have procedures in place that allow you to know when food was brought out.

Ways to monitor temperature

There are a wide range of thermometers including:

- probe thermometers
- min/max thermometers
- infra-red gun thermometers

Every kitchen needs a probe thermometer to monitor temperature inside dishes. Infra-red guns make it very easy to measure external temperatures but don't necessarily provide an accurate indication of the internal temperature.

Thermometers should also be kept where ever potentially hazardous foods are stored.

For an automated solution where readings are automatically recorded, consider using temperature loggers. This saves you time and effort, and acts as an independent and reliable auditor.

When buying thermometers or temperature loggers, make sure they are HACCP compliant. This requires that they have an accuracy better than 1°C. If the accuracy is not stated on the packet, then they are not HACCP compliant.

For more information

Food standards: www.foodstandards.gov.au
NSW Food Authority: www.foodauthority.nsw.gov.au