

# TEMPERATURE CONTROL AND THERMOMETER USE

## EAT SAFE FACTSHEET

Everyday, Mackay Regional Council works with residents and local communities to help make our region what it is today with a long term vision for the future. Council's Eat Safe program is helping to deliver world-class dining for Mackay residents and visitors.

### Temperature control

Potentially hazardous foods need to be kept below 5°C or above 60°C to minimise the growth of bacteria that cause food poisoning. The temperature range between 5°C and 60°C is called the 'temperature danger zone'. Examples of potentially hazardous food include:

- raw or cooked meats, or foods containing raw or cooked meat, such as curries or soups
- seafood and foods containing seafood
- dairy products and foods containing dairy products (e.g. custard and dairy based desserts)
- fried food such as spring rolls, dim sum, dumplings, gyozas, wontons and samosas
- processed fruits and vegetables (e.g. salads)
- foods containing cooked rice (e.g. fried rice, rice cakes, rice pudding and sushi)
- foods containing eggs, or other protein-rich foods (e.g. scrambled eggs, egg rolls, omelettes and quiches)
- foods containing bean sprouts (e.g. noodle dishes) or beans (e.g. tofu, mung bean cakes and bean rice pudding)
- foods that contain any of the above (e.g. rice paper rolls).

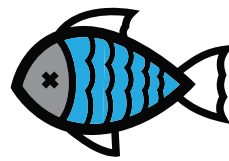


✓ **60°C**  
**SAFE ZONE**  
Keep hot food above 60°C

✗ **5°C - 60°C**  
**DANGER ZONE**  
Bacteria alive and multiplying – risk of food poisoning

✓ **5°C**  
**SAFE ZONE**  
Keep cold food below 5°C

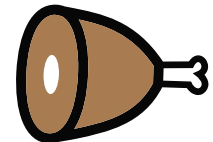
### Potentially hazardous foods



**Raw meat and food containing raw meat**



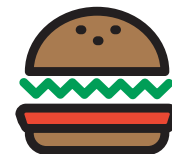
**Foods containing eggs**



**Cooked meat and food containing cooked meat**



**Dairy products**



**Food containing fruits and vegetables**

### Tips for temperature control

- If you want to hold hot food on a stove or in an oven, rice cooker, steamer or bain-marie, you need to make sure your equipment can keep the food at 60°C or above.
- Make sure you have enough refrigerator or cold room space to store your food. Refrigerators and cold rooms do not work properly when they are overloaded.
- Use a probe thermometer regularly to check the temperature of food you store or display. Built in displays on equipment are not always accurate. It is recommended you record any temperature checks.

## Thermometers

You will need a thermometer to monitor the temperature of food. Your thermometer needs to be accurate to  $\pm 1^{\circ}\text{C}$  and be able to measure the internal temperature of food. It's recommended to use a digital probe thermometer as they generally meet these requirements. Laser thermometers can be useful to quickly check the surface temperature of food however they can't measure the internal temperature.

## How to clean and sanitise your thermometer

1. Wipe away food.
2. Wash probe with warm water and detergent.
3. Sanitise with alcohol wipes, food grade sanitiser or hot water above  $77^{\circ}\text{C}$  for 30 seconds.
4. Allow to air dry or use single use towels.

## How to check the temperature of food

- Find the warmest area of your refrigerator or cold room, or the coldest area of a hot display unit or bain-marie (such as near the door or opening).
- Insert the clean and sanitised thermometer into the centre of the food.
- Wait until the reading on the thermometer display has stopped moving.
- If you are checking frozen or packaged food, place the probe between two of the packages.

## How to check your thermometer

You need to check the accuracy of the probe thermometer at least once every 12 months. You can do this by:

- using the boiling water check, if the thermometer is used to measure the temperature of hot food
- using the ice water check, if the thermometer is used to measure the temperature of cold food
- using both checks if you use the thermometer for both hot and cold food checks.

## Ice water check

Step 1: Mix 50% crushed ice and 50% water in a container. Wait for five minutes.

Step 2: Insert the probe into the container for at least 10 seconds until the reading has stopped moving.

Step 3: Check that the temperature is between  $-1^{\circ}\text{C}$  and  $1^{\circ}\text{C}$ . Record the temperature.

Step 4: If the temperature is greater than  $1^{\circ}\text{C}$  or less than  $-1^{\circ}\text{C}$ , replace your thermometer.

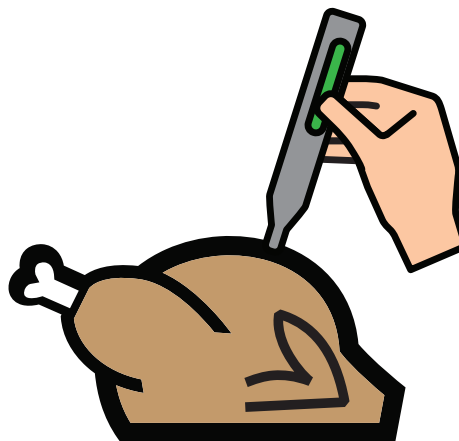
## Boiling water check

Step 1: Bring a container of tap water to the boil.

Step 2: Carefully insert the thermometer for at least 10 seconds until the reading has stopped moving.

Step 3: Check that the temperature is between  $99^{\circ}\text{C}$  and  $101^{\circ}\text{C}$ .

Step 4: If the temperature is greater than  $101^{\circ}\text{C}$  or less than  $99^{\circ}\text{C}$ , replace your thermometer.



**Check food temperature**

## For further information on Eat Safe Mackay:

 [www.mackay.qld.gov.au/eatsafe](http://www.mackay.qld.gov.au/eatsafe)

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