

FACT SHEET

COOLING POTENTIALLY HAZARDOUS FOODS

Cooling cooked, potentially hazardous foods, needs to be as quick as possible to prevent food-poisoning bacteria from growing to unacceptable levels.

Bacteria can be present in cooked food in the form of spores, and some live cells can survive the cooking process.

These cells are then able to grow to dangerous levels if the food is left in the temperature danger zone (5°C – 60°C) for prolonged periods of time.

RAPID COOLING OF COOKED FOODS

There are several ways cooked food can be cooled quickly:

- Cooking and cooling smaller amounts of food.
- Placing cooked foods into large, shallow containers (5cm high).
- Using rapid cooling equipment, such as a blast chiller.
- Stirring liquid food regularly.
- Placing the container in an ice water bath.
- Placing the food on shelves or racks in cool rooms to ensure air can circulate around the food.



2 HOUR/ 4 HOUR RULE

To make sure food is cooled quickly and safely, remember to use the 2 hour/ 4 hour rule:

- **Food must be cooled from 60°C to 21°C in the first 2 hours**
Food-poisoning bacteria growth is greatest between these temperatures. Cooling food quickly will help minimise this growth.
- **Food must be cooled from 21°C to 5°C in the next 4 hours**
Bacteria growth slows as the temperature decreases. The entire cooling process should be completed withing a total of 6 hours.

60°C START TIMING

21°C AFTER FIRST 2 HOURS

5°C AFTER NEXT 4 HOURS

MONITORING TEMPERATURES

Whenever cooked food is cooling you must monitor the temperature regularly to ensure it is cooling quickly enough:

- Check the temperature regularly using a clean and sanitised digital probe thermometer.
- Temperatures should be checked at the centre of the food, where it takes the longest to cool.
- Record the time and temperature throughout the process.
A temperature monitoring template is on the other side of this factsheet, which can be photocopied and used.

For more information go to penrithcity.nsw.gov.au or phone 4732 8055

Date	Food	Start time (food at 60°C)	Temp/ time	Temp/ time	Temp/ time	Temp/ time	Temp/ time	21°C in 2 hours? (yes - continue cooling)	Temp/ time	5°C or below in 4 hours (yes - safely cooled)	Corrective action	Staff initials
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Potentially hazardous foods must be cooled from 60°C to 21°C within 2 hours, and from 21°C to 5°C within a further 4 hours. See standard 3.2.2 clause 7 (3) for more information about safe cooling.