Temperature Critical Limits

What temperature should the fridge or chiller be? What temperature should I cook eggs to? How about red meat? White meat? What, what, what...?

Breathe. Below is a quick listing of what the critical temperatures should be to ensure food safety.

Firstly, a little bit about the danger zone...

Danger Zone

Most bacteria grow rapidly when they are warm (between 20-50°C). Bacteria do not like to be either hot or cold. Placing cold food in the fridge or placing hot food in a food warmer can normally prevent the growth of bacteria.

Given enough food and moisture, most bacteria grow between 5°C and 60°C, which is known as the danger zone. Room temperature is ideal for bacterial growth. It is essential that food be kept out of the danger zone other than for short periods of time.

Above 60°C bacteria are killed off. Below 5°C bacteria are killed or remain dormant (asleep).
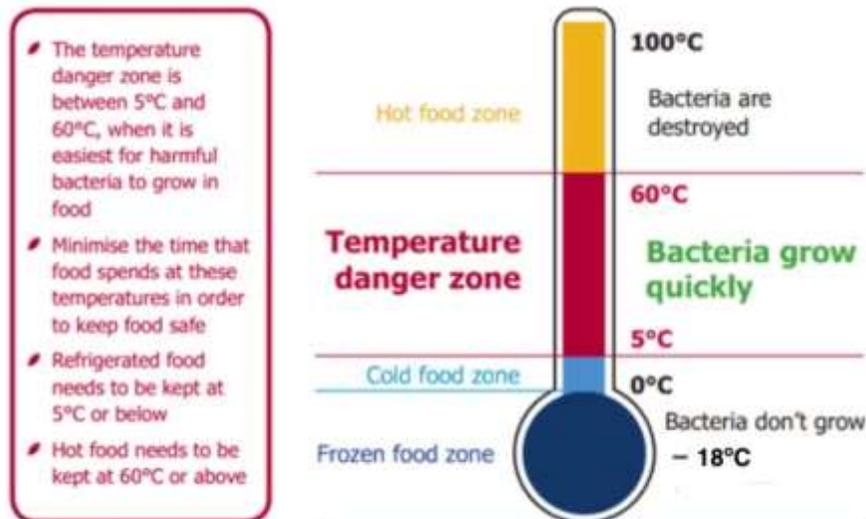
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Food Process	What	Critical Limit
Receival	Transport vehicle, **chilled** food item	Should be 5°C or colder
Receival	Transport vehicle, **frozen** food item	Should be -15°C or colder
Receival	Transport vehicle, **hot** food item	Should be 60°C or hotter
Storage	Fridges and food within equipment	Should be 5°C or colder
Storage	Freezers and food within equipment	Should be -15°C or colder
Preparation	Thawing	Core temperature must reach 1°C
Preparation	Perishable food item	If foods are between 5-60°C for 2-4 hours, use the food or cook it immediately If foods are between 5-60°C for 4+ hours, discard foods
Cook	Proteins	Core temperature must reach ≥75°C for minimum 10 minutes
Cook	Eggs	Core temperature must reach ≥71°C
Cook	All other items to be cooked	Core temperature must reach ≥75°C
Chill	All food items to be chilled	Cool from 60°C to 21°C in first 2 hours Cool from 21°C to 5°C in next 4 hours (total 6 hours)
Despatch	All food items to be despatched or transported from Horsham	**Chilled**: Should be 5°C or colder **Frozen**: Should be -15°C or colder **Hot**: Should be 60°C or hotter
Transport		
Reheat	All food items to be reheated	Food must be reheated to ≥75°C and must remain ≥75°C minimum 2 minutes Never reheat food for a second time
Hot Hold	All food items to be hot held	Food temperature must maintain ≥60°C Maximum hot hold is 4 hours
Cold Hold	All food items to be cold held	May keep at room temperature prior to service **maximum** 21°C **or** 20 minutes
Service	All food items to be served	Hot hold and cold hold temperatures
Cleaning	Dishwasher rinse cycle	Must reach a minimum 82°C

Remember:

0 to 2 hours	2 to 4 hours	More than 4 hours
Use immediately, or keep at or below 5°C, or at or above 60°C	Use immediately	Throw away

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Temperature Monitoring

The records below are used to determine if the food item in question is at an acceptable temperature.

Food Safety Form	Why	When to be Completed
Receival Log	To ensure chilled, frozen, or hot items are delivered at the acceptable temperature limits	Every delivery
Temperature Log - Equipment	To ensure fridges and freezers are working properly	Every AM and PM
Temperature Log - Cook and Chill	To verify food is **cooked** to the correct temperature and **chilled** within the correct timeframe	Every food item cooked, chilled
Temperature Log - Despatch	To verify food left site at the correct temperature	Every despatch
Temperature Log - Transport	To ensure chilled, frozen, or hot items are transported at the acceptable temperature limits	Daily when transport vehicle is in use
Temperature Log - Reheat	To ensure food is reheated to the correct temperature	Every food item reheated
Temperature Log - Service	To verify food is being served at the correct hot and cold temperatures	Every service
Temperature Log - Dishwasher	To ensure hot water is being received within equipment	Every AM and PM
Batch Log	To verify time and temperature critical limits are being met at each food process	Weekly or monthly, depending on number of items cooked throughout the week

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Corrective Action if Temperature Outside Critical Limit

What should you do?

- If in doubt, throw it out – don't risk your health, or the health of your consumers

- Are your consumers the elderly? The ill? Children? Pregnant women? Don't risk it

- Practice due diligence, always

- If temperature is outside of the critical limits, investigate for how long for – food item could potentially be saved – if you don't know, don't risk it; throw it out

- Investigate what went wrong

- Investigations should include methods or change of practice to reduce the likelihood of a repeated issue

- Fix the issue – re-train staff, or repair equipment, or obtain a new, calibrated thermometer, etc

- Ensure corrective actions are documented on the relevant record sheet

Example: Non-Conforming Product or Equipment Procedure

- **Notify** the manager as soon as possible

- **Segregate** non-conforming product or equipment from food process

- **Clearly** label product or equipment using a "**Do not use"** label or sign until investigation is complete; if applicable ensure a **Holding Tag** is in use

- **Final assessment** of non-conforming **product** can only be conducted by the manager

- **Final assessment** of non-conforming **equipment** can only be conducted by the Operations Manager once an item has been tagged out

- **Discard** risky product directly into waste bins. If a large amount, discard into large garbage bags and place directly into dumpster

- **Investigate** reasons for non-conformance and develop preventive measures

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