



Module 5: Controlling and eliminating food hazards - Specific



Start Module





Learning objectives

At the end of 'Module 5: Controlling and eliminating food hazards - Specific' you will be able to:

1

List the stages of the food lifecycle



3

Explain how to control or eliminate common hazards

2

List common hazards associated with each stage of the food lifecycle

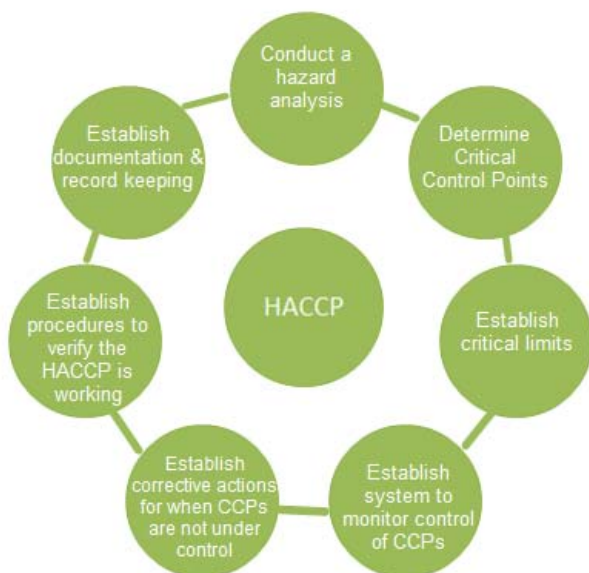
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The HACCP System and the Food Lifecycle



Sourcing



Receiving



Storing



Handling, preparing,
cooking and processing



Displaying and serving



Transporting



Disposing

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The Food Lifecycle

The Food Lifecycle consists of seven steps.



Sourcing



Receiving



Storing



Handling, preparing,
cooking and processing



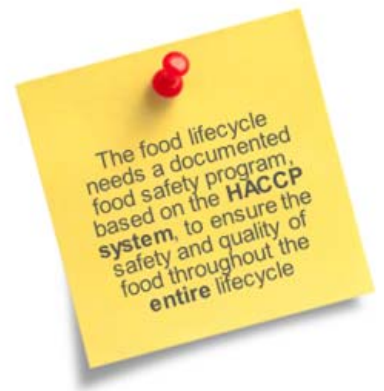
Displaying and serving



Transporting



Disposing



The food lifecycle
needs a documented
food safety program,
based on the **HACCP**
system, to ensure the
safety and quality of
food throughout the
entire lifecycle

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Food Handling CERTIFICATE



The Food Lifecycle - Sourcing

Managing the food that you bring into your food business.

Going to a store or supplier and selecting
and transporting the food **yourself**

OR

Suppliers deliver food **direct** to
your food business



Sourcing



Receiving



Storing



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Transporting



Disposing



Purchase potentially hazardous foods
such as meat and dairy last



Keep potentially hazardous foods cold



Prevent cross-contamination by
separating



Refrigerate foods immediately



Follow the relevant receiving food
guidelines



Follow the receiving food guidelines



Can also use an 'Approved Food
Supplier Agreement Form'



It is important to **maintain a list of approved suppliers**



[Approved Food
Supplier List](#)



[Approved Food Supplier
Agreement Form](#)

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Food Handling CERTIFICATE



The Food Lifecycle - Receiving

Date	Time	Supplier No.	Product Received	Temp °C	Visual Check	Labelling	Designated Storage Area	Accepted / Rejected	Corrective Action	Checked by
01/01/12	09:00	1	Frozen green prawns	-18°C	Frozen hard Packaging intact	Correct	Freezer	Accepted	None	Jane



Sourcing



Receiving



Storing



Handling, preparing,
cooking and processing



Displaying and serving



Transporting



Disposing

Temperature

- ✓ Frozen foods are frozen hard
- ✓ Cold foods are at or below 5°C
- ✓ Hot foods are at or above 60°C

Labelling

- ✓ Name of the food
- ✓ Name and address of the supplier
- ✓ Lot or batch identification
- ✓ Use-by or best-before date

Visual check

- ✓ Within the use-by date or best-before date
- ✓ Packaging is appropriate and is not damaged
- ✓ No evidence of pest contamination
- ✓ No evidence of foreign objects
- ✓ Delivery truck used is clean

Designated storage area

- ✓ Cupboards or store rooms
- ✓ Refrigerators or cool rooms
- ✓ Freezers or freezer rooms



[Record of Incoming Goods
Form and Checklist](#)

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The Food Lifecycle - Storing

Once you have received food products, it is important to **store** them in the appropriate storage area immediately to help prevent potential contamination.

Types of storage

Dry storage

- Cupboards, storerooms or any 'dry' storage location
- For dry foods that have a long shelf life and can be kept at room temperature



Cold storage

- Refrigerators or cool rooms
- For foods that must be kept in the 'Cold Food Safe Zone' at 5°C or less



Frozen storage

- Freezers or freezer rooms
- For foods that must be kept frozen solid at -15°C or less



Sourcing



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Storing



Handling, preparing,
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Displaying and serving



Transporting



Disposing

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The Food Lifecycle - Storing

Follow these **tips** when storing food products:



Do:

- Always follow the storage instructions on the label
- Ensure that food is stored and covered in appropriate food grade containers or packaging
- Check stored food regularly
- Ensure all food products are correctly and clearly labelled
- Store potentially hazardous food under temperature control
- Regularly check the temperature of potentially hazardous food with a temperature measuring device
- Separate raw foods from cooked foods
- Ensure the refrigerator and freezer are cleaned and defrosted on a regular basis
- Only open refrigerator or freezer doors when necessary
- Ensure food storage areas are cleaned on a regular basis
- Check food storage areas regularly for signs of pests and report any signs immediately



Don't:

- Do not store raw food above cooked foods
- Do not overload or overstock refrigerators or freezers
- Do not put very hot food in the refrigerator
- Do not store food on the floor
- Do not store food with other items such as chemicals or linen



The Food Lifecycle - Storing

The temperature of the **food product** and the **food storage area** is very important in controlling microbiological contamination.

Frozen foods



Below -18°C

Raw meat



0°C to 2°C

Dairy



1°C to 3°C

Fruit and
vegetables



3°C to 6°C

Dry goods



6°C to 10°C



The Food Lifecycle – Handling, preparing, cooking, processing

You must take all practical steps to ensure you prevent contamination and cross-contamination of the food



Avoid contamination:

Personal hygiene



Workplace hygiene



**Monitoring and
controlling food
temperature**

It is a requirement for food businesses that handle potentially hazardous foods, to have **temperature measuring devices**:



Easily accessible



Accurate to within +/- 1°C

Range of appropriate **devices**:

Probe thermometer



Measures internal
temperature

Infra-red thermometer



Measures external
temperature

**Combination probe &
infra-red thermometer**



Measures internal and
external temperature

Fixed thermometer



Measures air
temperature

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The Food Lifecycle – Handling, preparing, cooking, processing

The most commonly used device is the **probe** thermometer.
Follow these simple steps to **use** one safely.

Step 1

Wash the probe under hot running water and **sanitise** it

Step 2

Insert the probe into the centre or thickest part of the food

Step 3

Read the temperature and **record**

Step 4

Take appropriate **steps** if the temperature is outside the Temperature Safe Zone

Step 5

Wash and **sanitise** the probe before **returning** to its storage location



The Food Lifecycle – Handling, preparing, cooking, processing

It is important that all thermometers are kept in **good condition** and are **calibrated** regularly.

Follow these steps to **calibrate** a **probe** thermometer.

Step 1

Place the probe in **boiling** water and confirm the temperature **reads 100°C**

Step 2

Place the probe in **crushed ice and clean water** and confirm the temperature **reads 0°C**



Inform your **supervisor** if the calibration is **not accurate**.

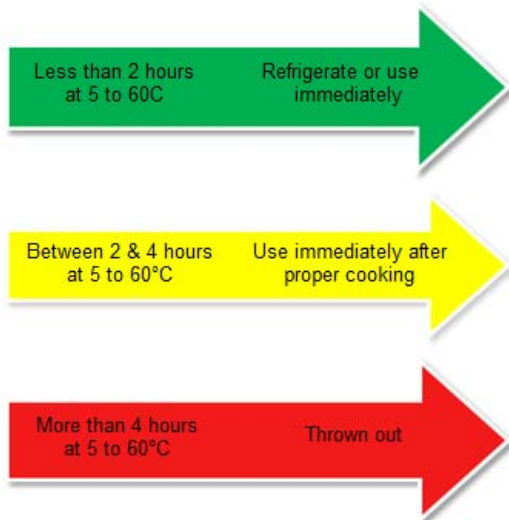


If you do not know **where** your temperature device is or **how** to use it, make sure you **ask your supervisor**.



The Food Lifecycle – Handling, preparing, cooking, processing

Keep in mind that food can stay in the **Temperature Danger Zone** for a short time and **still be safe**.



'2 Hour-4 Hour rule'

The time relates to the **total time** that a particular food has been in the Temperature Danger Zone

It is important to **keep a record** of any cases where you apply this rule



[2 Hour- 4 Hour Record](#)

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The Food Lifecycle – Handling, preparing, cooking, processing

Click each process to find out more

[Handling & preparing](#)[Cooking](#)[Cooling](#)[Freezing](#)[Defrosting](#)[Reheating](#)[Processing](#)[Packaging](#)[Replay](#) [« Prev](#) Page



The Food Lifecycle – Handling, preparing, cooking, processing

Click each process to find out more

Follow the **personal hygiene**



Workplace hygiene procedures



When handling and preparing food, ensure it is in the
Temperature Danger Zone for the **minimum** possible time

- Handling & preparing ✓
- Cooking ✓
- Cooling ✓
- Freezing ✓
- Defrosting ✓
- Reheating ✓
- Processing ✓
- Packaging ✓

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The Food Lifecycle – Handling, preparing, cooking, processing

Click each process to find out more

Handling &
preparing ✓

Cooking ✓

Cooling ✓

Freezing ✓

Defrosting ✓

Reheating ✓

Processing ✓

Packaging ✓

There is the potential for food to become contaminated while it is being cooked.

- ✓ Follow the manufacturer's **instructions** when using equipment for cooking.
- ✓ Allow cooked liquids (such as soups and sauces) to **boil** to kill bacteria
- ✓ Check that cooked meats have **clear juices**
- ✓ Check the **temperature** of cooked foods with an appropriate, sanitised **thermometer**



Cooking food to temperatures **above 75°C** will kill
most bacteria

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The Food Lifecycle – Handling, preparing, cooking, processing

Click each process to find out more

You need to ensure that cooked food is cooled as **quickly** as possible to the
Cold Food Safety Zone (<5°C)

BUT

Should not put food in the refrigerator when it is hot.

Use these stages to **cool food safely**:



Cool from 60
to 21°C within
2 hours



Cool from 21 to
5°C within a
further 4 hours



To help cool large amounts of food quicker, **divide** it and
transfer it into **small, shallow** containers.

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The Food Lifecycle – Handling, preparing, cooking, processing

Click each process to find out more

Most foods can be frozen. Some common foods:

Handling & preparing ✓

Cooking ✓

Cooling ✓

Freezing ✓

Defrosting ✓

Reheating ✓

Processing ✓

Packaging ✓



Remember to:

- ✓ Never re-freeze food that has already been defrosted
- ✓ Never freeze foods that have been reheated
- ✓ Freeze foods in small portions in shallow containers

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The Food Lifecycle – Handling, preparing, cooking, processing

Click each process to find out more

Always use either:



Handling & preparing ✓

Cooking ✓

Cooling ✓

Freezing ✓

Defrosting ✓

Reheating ✓

Processing ✓

Packaging ✓



Ensure the food is placed on the **bottom shelf** away from other foods



You can keep defrosted food in the refrigerator for a **short** amount of time



Ensure the food is cooked or reheated **immediately**



Never cook or reheat food until it is **completely defrosted**

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The Food Lifecycle – Handling, preparing, cooking, processing

Click each process to find out more

Handling & preparing ✓

Cooking ✓

Cooling ✓

Freezing ✓

Defrosting ✓

Reheating ✓

Processing ✓

Packaging ✓

Must be reheated **rapidly** to **75°C** or **hotter** using the oven or microwave.

Remember:

The less time the food spends in the Temperature Danger Zone the better.

Once reheated, the food must be maintained at **60°C or hotter** using a warmer or bain-marie.



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The Food Lifecycle – Handling, preparing, cooking, processing

Click each process to find out more

All food processing must be conducted in a **clean area**, using **clean equipment** and following all **personal** and **workplace hygiene** procedures.



Remember, ensure potentially hazardous foods are held outside of temperature control for the **minimum time possible** during processing.

Handling & preparing ✓

Cooking ✓

Cooling ✓

Freezing ✓

Defrosting ✓

Reheating ✓

Processing ✓

Packaging ✓

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The Food Lifecycle – Handling, preparing, cooking, processing

Click each process to find out more

Handling & preparing ✓

Cooking ✓

Cooling ✓

Freezing ✓

Defrosting ✓

Reheating ✓

Processing ✓

Packaging ✓

It should be **packaged**:

- ✓ in a clean area
- ✓ using clean equipment
- ✓ with food-grade packaging material
- ✓ appropriate labelling.

The **label** should include the:

- ✓ name of the food
- ✓ use-by or best-before date
- ✓ list of ingredients
- ✓ nutrition panel
- ✓ details of the packer, manufacturer and/or importer



You **cannot** display, serve or sell food that is **past the use-by date**.
However, you **can** still display, serve or sell food that is **past the best-before date** as long as the food product has not deteriorated.



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The Food Lifecycle – Displaying and serving

You must take all practical measures to **protect** the food from the likelihood of contamination.

Can be conducted either by:

Employee



Customer



All potentially hazardous food must be under **temperature control** or subject to the '2 hour-4 hour' rule.

Packaged food

- ✓ Intact, undamaged packaging

Non-ready to eat food

- ✓ Protected from contamination
- ✓ Separated from ready to eat food

Ready to eat food (not self-service)

- ✓ Not displayed where a customer can access it, unless it is enclosed

Ready to eat food (self-service)

- ✓ Prevent cross-contamination
- ✓ Prevent contamination by customers
- ✓ Effectively supervised



Sourcing



Receiving



Storing



Handling, preparing, cooking and processing



Displaying and serving



Transporting



Disposing

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The Food Lifecycle - Transporting

It is just as important to continue to protect food from contamination during transport.

Follow these tips for safe food transport:

- ✓ Do not transport food products with chemicals or other potential contaminants
- ✓ Ensure food is packaged or covered appropriately with food grade quality materials
- ✓ If packaging becomes damaged during transport, inspect the food for signs of any contamination and throw it out if it is no longer safe
- ✓ Keep ready to eat and raw food separated during transportation
- ✓ Raw food should be transported below ready to eat food
- ✓ To ensure potentially hazardous food is transported under temperature control:
 - Use a vehicle with a cooling system to ensure cold food remains under 5°C and frozen food remains frozen
 - Use a vehicle with a heating system to ensure hot food remains above 60°C
 - You can use insulated boxes to maintain the safe temperature, but only for transport over short distances
- ✓ Ensure the transport vehicle and any transport boxes are clean



Sourcing



Receiving



Storing



Handling, preparing,
cooking and processing



Displaying and serving



Transporting



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The Food Lifecycle - Disposing

The last stage of the food lifecycle is to dispose of any food products, as needed.



Sourcing



Receiving



Storing



Handling, preparing,
cooking and processing



Displaying and serving



Transporting



Disposing

Contaminated or
potentially contaminated



Scraps from the food
preparation process

Recalled

Uneaten food that was
served to a customer



Any food for disposal must be **kept
separate from safe food.**



Follow all garbage handling
and disposing **procedures.**

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Summary

Congratulations! You have now completed Module 5: Controlling and eliminating food hazards – Specific.

You should now be able to:

-  List the stages of the food lifecycle
-  List the common hazards associated with each stage of the food lifecycle
-  Explain how to control or eliminate food hazards

You can now return to the home page and move on to the next module which will look at reporting and monitoring food hazards.

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