

製造安全的 校園午餐飯盒

Producing safe school lunch boxes



常見的生產模式

Common production system

1. 即日烹煮及進食(Cook-serve)
2. 速涼烹調(Cook-chill)

即日烹煮及進食 Cook-serve

- 食物大都是在供餐當日早上才烹煮的。
Most food items are prepared primarily from ingredients on the day they are to be served.
- 一般在供餐前二至四小時把所需食物烹調好，並將食物熱存在適當的器具內，直至供餐為止。
They usually prepare foods 2 to 4 hours in advance of service time. The food items are then held hot until they are distributed to schools for consumption.

速涼烹調(Cook-chill)

- 中央廚房負責烹煮食物及將已煮熟的食物快速冷卻。冷卻後的食物會貯存在攝氏4度或以下。
A central kitchen cooks foods thoroughly and chills the foods rapidly in a blast chiller. The foods are then stored at or below 4oC.

速涼烹調(Cook-chill)

- 第二天早上，食物會被送到衛星廚房翻熱，然後再被送往學校供學生進食。

On the next day, the foods are distributed to satellite kitchens for reheating and then to schools for consumption.

食物安全計劃 Food safety plan

飯盒生產模式 Lunch boxes production system

- 涉及大部分食材烹製 Involve cooking with lots of ingredients
- 提前數小時烹煮好食材 Cook ingredients hours in advance

「食物安全重點控制」(HACCP)系統能提升食物安全，預防食物危害

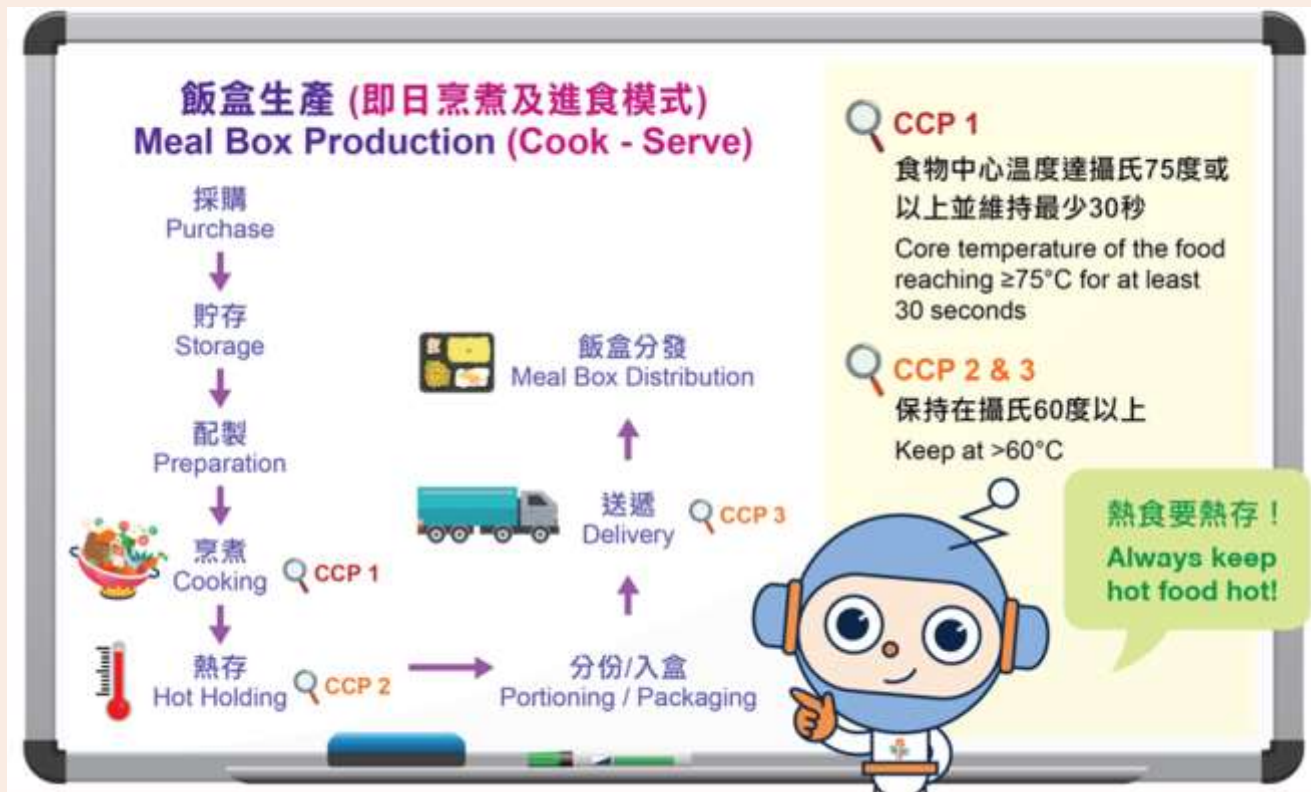
HACCP system can improve food safety and prevent food hazards



食物安全重點控制系統

HAZARD ANALYSIS & CRITICAL
CONTROL POINT (HACCP) SYSTEM

飯盒生產流程圖及控制重點(CCP)



三個最主要的控制重點 3 important CCPs

✓ 烹煮 Cooking (CCP1)

食物的中心溫度須達攝氏75度或以上，並維持最少30秒
Thoroughly cooked with the core temperature reaching at least 75°C for at least 30 seconds



≥75°C



≥30s

✓ 熱存 Hot holding (CCP2)

✓ 送遞 Delivery (CCP3)

食物保持在攝氏60度以上
Keep meal boxes at above 60°C



>60°C

建立監控標準 Establish critical limits

- 可觀察或可量度 (如：溫度/時間)

Observable or measurable (for example:
temperature/time)

- 界定可接受及不能接受的情況

Separates acceptability from unacceptability



危險溫度範圍與熱存

Temperature Danger Zone & Hot Holding

- 食物存放在4°C至60°C的「危險溫度範圍」內，容易滋生各種細菌。

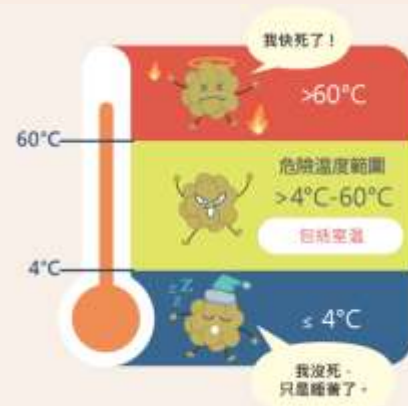
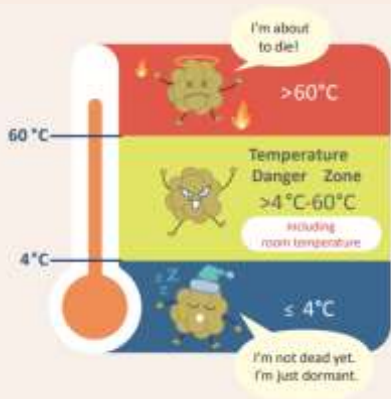
Storing food at the "Temperature Danger Zone" between 4°C and 60°C allows various types of bacteria to grow rapidly.

在烹製食物的各階段中妥善控制溫度，是預防細菌性食物中毒的有效方法。

Proper temperature control at all stages of food preparation is an effective way to prevent bacterial food poisoning.

低溫貯存可抑制細菌生長（但不能殺菌），而高溫處理則可有效消滅細菌。

Chilling will inhibit bacterial growth (but cannot kill them), high temperature treatment can destroy bacteria effectively



- 2小時 / 4小時原則是確保食物安全的好方法，適用於已從雪櫃取出或已經煮熟，並放在室溫下的食物。

The 2-hour / 4-hour rule is a good way to keep food safe even if it has been out of refrigeration or placed at ambient temperature after cooking.

2小時4小時原則

易壞食物 放置室溫的時間	放入雪櫃備用	即時食用
 2小時		
 2-4小時		
 多於4小時		

不應進食或使用放於室溫超過4小時的食物！

坐低飲啖茶，食個包先！

吃要及時，食物準備好應快啲食晒佢，避免攤晾室溫！

- 預先烹製的食物，尤其是肉類、家禽及肉汁等（例如大鍋的炆肉或咖喱），如非立即食用，就應2小時內進行熱存。

Precooked food, especially meat, poultry and gravy (e.g. stewed beef or curry), should be stored properly in hot or cold-holding devices within 2 hours if not for immediate serving

- 熱存要夠熱：預先煮好的熱食應熱存在60°C以上。使用合適的熱存工具保溫，並先預熱才可以存放食物。

Keep hot food hot: Hot food must be kept at temperatures over 60°C. Use and preheat suitable hot-holding equipment before storing food.

- 冷存要夠冷：預先處理好的冷食應冷存在4°C或以下。冷存工具要先製冷才可以存放食物。

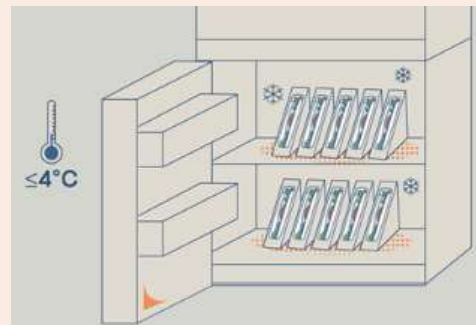
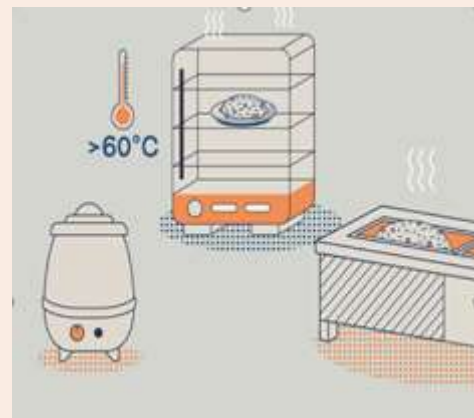
Keep cold food cold: Cold food must be kept at 4°C or below. Cold-holding equipment must be adequately pre-chilled before storing food.

- 早晚用溫度計檢查熱存工具的溫度是否在標準範圍內，如溫度偏差多於1°C，應盡快通知相關同事跟進。

Check regularly with a thermometer and if the temperature of the hot or cold-holding equipment deviates by more than 1°C, a check-up is warranted.

- 食物（預先烹製的食物）必須徹底煮熟至沸騰才開始熱存保溫。

Food (including precooked food) must be cooked thoroughly to steaming hot before hot holding begins.



其他重點 Other highlights:

- 把所有食物放入衛生及已蓋好的容器內。
Keep all food in hygienic and covered containers.
- 運送時，把飯盒放在衛生的保溫箱內。
Store lunch boxes in hygienic insulation boxes during transportation.
- 利用可存放在保溫箱或隔層水浴鍋的容器，盛載現場分份的食物。
Store the food for on-site portioning in containers that can be put inside insulation boxes or bainmarie.

- 食物於運送前及運抵學校時，檢查其溫度以確保在運送期間，熱的食物保持在攝氏60度以上，而冷凍食物則在攝氏4度或以下。

Conduct temperature checks before delivery and on arrival at schools to ensure hot meals are kept at above 60°C and cold food at 4°C or below during transportation

- 盡量縮短食物由製造完畢到可供食用的時間（包括運送所需的時間），以減少細菌繁殖的風險及幫助食物保溫。

Shorten the time between finishing production and consumption of food (transportation time is included) to lower the risk of bacterial growth and maintain food temperature.

- 運送午膳車輛的內壁應保持平滑和不透水，及經常清洗和消毒。車輛上最好能裝上保溫或冷藏裝置，使食物能於運送時保溫。

Internal surfaces of the transporting vehicle should be smooth and impervious, and be frequently cleaned and disinfected. It is desirable to install a cooling or heating device in the vehicle to maintain food temperature during transportation.

- 運送午餐飯盒的車輛清潔及衛生。

Inspect the hygienic condition of the vehicle before each food delivery

- 運送午膳車輛應避免用作其他用途，尤其是運送生的食物或化學物；應備存運送紀錄表以供核查之用。

Transporting vehicle should not be used for purposes other than delivering school lunch, especially transportation of raw food or chemicals and maintain delivery log for checking purpose.

提醒客戶 Remind customers :

- 在食物送抵後盡快食用。
Consume food as soon as possible after it arrives.
- 如發現食物有不妥的地方(如食物味道有異) ,
應立即停止食用及即時反映。
If there is something wrong with the food
(such as the food tastes different), stop
eating it immediately and report it
immediately.



食物處理人員個人衛生

Personal hygiene of food handlers:

- 定期接受培訓
Be trained regularly
- 配製食物期間遵守良好個人衛生習慣
Observe good personal hygiene during food preparation
- 如出現腹瀉、腹痛和嘔吐等病徵，應停止處理食物
Refrain from handling food if showing symptoms of diseases such as diarrhea, abdominal pain and vomiting.

食物業處所的衛生

Environmental hygiene of food premises:

- 訂定有效的清潔步驟和時間表。
Establish effective cleaning procedures.
- 確保所有接觸食物的用具，包括可重覆使用的餐盒和餐具，經洗淨和消毒後均有妥善存放。
Ensure all food contacting utensils, including reusable lunch boxes and tableware, are clean, sanitised and properly stored.

食物業處所的衛生

Environmental hygiene of food premises:

- 所有與食物接觸的物品都必須以能去除食物殘渣、污垢、油脂並殺死食源性病原體的5步驟進行有效清潔和消毒。

All items that come into contact with food must be effectively cleaned and sanitised in a 5-step process that removes food waste, dirt and grease and kills foodborne pathogens.



1. 刮除殘渣 Remove residues
2. 用溫水與清潔劑洗刷 Wash with warm water and detergent
3. 用清水徹底沖洗 Rinse thoroughly
4. 用沸水和消毒劑消毒 Sanitise with hot water or sanitizer
5. 風乾 Air dry

更多資訊 More information

- 可參閱食物安全中心的文件《根據「食物安全重點控制」系統制定的食物安全計劃(適用於學校午餐飯盒供應商)》。

Refer to the CFS' document

"Developing a school food safety plan based on HACCP system (for school lunch box caterers) "

- https://www.cfs.gov.hk/tc_chi/programme/programme_haccp/files/lunchbox.pdf
- https://www.cfs.gov.hk/english/programme/programme_haccp/files/lunchbox.pdf



更多資訊 More information

- 可參閱食物安全中心的專題網頁 “學園食安心” 。
Refer to CFS' thematic webpage “Safe food at school”
- <https://www.cfs.gov.hk/school/index.html>
- 可參閱食物安全中心的文件 “學校和幼兒機構確保食物安全實務指南” 。
Refer to the CFS' document
"A Practical Guide for Ensuring Food Safety in “Schools and
Childcare Facilities “
- https://www.cfs.gov.hk/tc_chi/school/guide_for_ensuring_food_safety_c.pdf
- https://www.cfs.gov.hk/english/school/guide_for_ensuring_food_safety_e.pdf



謝謝
Thank you

