# 製作泰式冷盤的食物安全措施

Food Safety Advice for Producing Thai Cold Dishes



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#### 引言

香港各國美食雲集,其中泰國菜是很多人的心頭好。冷盤如生蝦刺身、 青木瓜沙律和去骨鳳爪沙律等都是人們在光顧泰國菜館時喜歡點選的 菜式。

#### 常見的製作方法和食物安全問題

泰式冷盤所用的食材大多是進食前不會再經烹煮,而生的食材容易受副溶血性弧菌、沙門氏菌和其他致病菌污染。如食材的來源不明,食物安全的風險更會增加。

泰式冷盤的製作過程涉及多重人手處理程序,例如剝皮、切段和拌匀等。如處理不當,食材很容易受周圍環境和食物處理人員交叉污染。例如,食物處理人員手上的金黄葡萄球菌等細菌可能會對食物造成交叉污染。此外,食材如沒有妥為貯存,致病菌會在受污染的食物內大量滋生,繼而引致可經食物傳播的疾病。

#### 泰式冷盤的製作涉及下列一項或多項風險因素:

- 包含了非常容易腐壞的配料
- 須人手處理和混入其他配料
- 在食用前的貯存溫度不當

為確保食物安全,在製作泰式冷盤時採取食物安全措施是十分重要的。 下文將探討確保食物安全的一般原則,然後再以三種泰式冷盤為例詳加 説明:

- 生蝦刺身
- 青木瓜沙律
- 去骨鳳爪沙律





#### Introduction

In Hong Kong, Thai cuisine is a popular cuisine amongst the world's gourmet. Cold dishes, such as shrimp sashimi, green papaya salad and boneless chicken feet salad, are favourite orders in local Thai restaurants.

#### Common production modes and food safety problem

The ingredients used in these Thai cold dishes are mostly raw without further cooking before consumption. The raw ingredients may be contaminated with pathogens like *Vibrio parahaemolyticus*, *Salmonella* species and other food poisoning organisms. If the ingredients are from doubtful sources, the food safety risk is further increased.

Preparation of these cold dishes involves manual handling procedures like peeling, cutting and mixing of the ingredients. If they are improperly handled, cross-contamination from the environment and food handlers may occur. Bacteria such as *Staphylococcus aureus* found on hands may cross-contaminate the food. If the ingredients are not stored properly, pathogens resulted from contamination may multiply and lead to foodborne disease.

### Their production involves one or more of the following risk factors:

- Highly perishable ingredients
- Manual handling and mixing of ingredients
- Improper holding temperature before consumption

In order to ensure food safety, it is important to implement food safety measures in the production of Thai cold dishes. Below is a discussion of the general principles, followed by practical illustrations with three Thai cold dishes:

- Shrimp sashimi
- Green papaya salad
- Boneless chicken feet salad



#### 確保食物安全的一般原則

由於泰式冷盤大多是生吃的食物,在奉客前未經烹煮,所以必須選用 完好、衞生和品質優良的食材。因此,確保食物安全的第一步是向可靠 的供應商購買不含致病菌及適合生食的食材。

在配製食物期間如處理不當,會增加交叉污染和病菌滋生的風險。為了

把這些風險減到最低,在整個配製和處理工序中保持良好的環境衞生、個人衞生和適當的貯存溫度至為重要。此外,食肆應執行防治蟲鼠、廢物處理和員工培訓等基本工作。以下是一些對確保食物安全不可或缺的措施:



• 使用不同的器皿和用具來處理食材,經常用沸騰

熱水或清潔劑把器皿和用具清洗乾淨。

• 使用專用的雪櫃或雪櫃內指定的專用部份來貯存已配製好的食材。

 配製好的食材應放在有蓋的容器內,並 貯存於攝氏4度或以下的雪櫃裏。

• 食物處理人員應<mark>穿着清潔的</mark>工作服,外 露的傷口亦應妥為包紮,工作時要戴上 手套。按照正確的方法洗手。



http://www.cfs.gov.hk/tc\_chi/programme/programme\_haccp/programme\_haccp\_basics\_link1.html

http://www.cfs.gov.hk/tc\_chi/multimedia/multimedia\_pub/files/how\_to\_wash\_your\_hands.pdf

http://www.cfs.gov.hk/tc\_chi/multimedia/multimedia\_pub/files/How\_to\_use\_gloves\_for\_food\_handlers.pdf

#### 推行食物安全重點控制系統

採取上文所述的一般原則,並推行食物安全重點控制系統(HACCP),可有效提高製作泰式冷盤時的食物安全。以下是三款泰式冷盤製作流程中的控制重點及防止致病菌滋生的相應控制措施。

#### General principles to safeguard food safety

Since Thai cold dishes are mostly raw and have not undergone a cooking step before serving, the food ingredients should be sound, wholesome and of good quality. Therefore, the important starting point on the production processes is to purchase food ingredients which are free of pathogens and suitable for consumption in the uncooked state from reliable source.

In the course of preparation, improper handling would increase the risk of cross-contamination and growth of pathogens. To minimise these risks, good environmental hygiene, good personal hygiene and proper storage temperature are essential for all preparation and handling processes. Furthermore, other basic works, such as pest control, waste disposal and staff training should also be in place. The following measures are indispensable to ensure food safety:

- Designated food preparation area should be provided for the preparation of the cold dishes.
- Separate utensils and equipment should be used to handle the ingredients. They should always be sterilised thoroughly with boiling water or sanitiser.
- Designated refrigerator or designated compartment in refrigerator should be used for storage of prepared ingredients.
- The prepared ingredients should be placed in containers with covers and stored in refrigerator at 4°C or below.
- The food handlers should wear clean overalls, properly cover the open wounds and wear gloves while at work. Appropriate hand washing method should also be observed.

http://www.cfs.gov.hk/english/programme/programme\_haccp/programme\_haccp\_basics\_link1.html

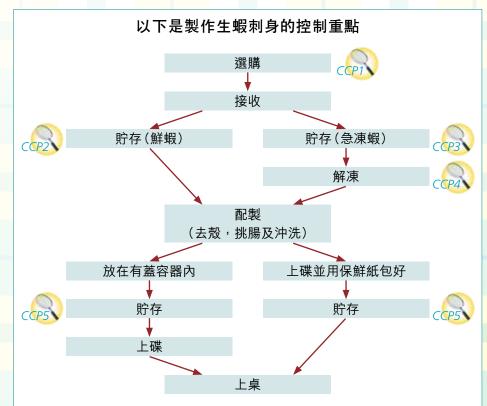
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http://www.cfs.gov.hk/english/multimedia/multimedia\_pub/files/How\_to\_use\_gloves\_for\_food\_handlers.pdf

#### **Application of HACCP principles**

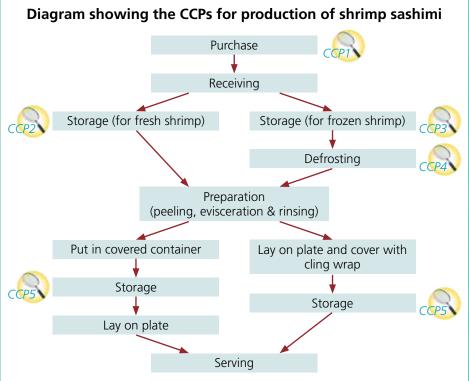
Together with the application of the general principles, implementation of Hazard Analysis and Critical Control Point (HACCP) system can effectively enhance food safety on the production of Thai cold dishes. The following are generic preparation procedures of three Thai cold dishes, showing the critical control points (CCPs) at which control measures can be applied to prevent the growth of pathogens.

#### 具體例子1:生蝦刺身



- CCP 1 用以配製刺身的蝦隻,必須是完好、衞生和品質優良的,且須由可靠的供應商提供。所有進口的蝦須附有該出口國家有關當局簽發並獲本港食物環境衞生署署長認可的衞生證明書,證明此類食物適合生食。
- CCP 2 鮮蝦應放在專用的容器內並用蓋或保鮮紙蓋好,然後貯存在攝氏4度或以下的雪櫃內。
- CCP 3 急凍蝦要存放在冷藏櫃內,溫度要保持在攝氏零下18度或以下。
- CCP 4 急凍蝦應放在攝氏4度或以下的雪櫃內解凍。
- CCP 5 配製好的蝦隻應放在專用的容器內並用蓋或保鮮紙蓋好,然後貯存在攝氏4度或以下的雪櫃內。

#### Specific example 1. Shrimp sashimi



- CCP 1 Raw shrimps for the preparation of sashimi shall be sound, wholesome and of good quality, and should be obtained from a reliable source. Imported shrimps should be accompanied by a copy of the health certificate issued by the relevant authority of the exporting country and acceptable to the Director of Food and Environmental Hygiene to the effect that such food materials are suitable for consumption in the uncooked state.
- CCP 2 Fresh shrimps should be stored exclusively in containers and covered by lids or cling wrap. They should be stored inside refrigerator maintained at 4°C or below.
- CCP 3 Frozen shrimps should be stored in freezer with temperature at -18°C or below.
- CCP 4 Frozen shrimps should be thawed out in refrigerator with temperature at  $4^{\circ}\text{C}$  or below.
- CCP 5 Prepared shrimps should be stored exclusively in containers and covered by lids or cling wrap. They should be stored inside refrigerator maintained at 4°C or below.

#### 注意要點

- 供應生蝦刺身的食物業處所必須事先取得食物環境衞生署(食環署) 所發有關配製和售賣刺身的牌照,並須遵循有關的發牌及持牌條件。
- 食環署不建議從街市攤檔或售賣新鮮海產的店鋪購買活蝦製作刺身。
   根據《食物安全條例》,食物業處所必須保存來貨紀錄以便查閱。
- 蝦隻不應養在魚缸內或放在雪櫃以外的器皿裏。
- 在食物處理區內,應劃定專用的區域作製作刺身的用途。
- 準備一套專門處理刺身的用具,每次使用前後都要把用具徹底清潔和 消毒。在營業期間,配製刺身的刀在無需使用時,須放置在刀具消毒 器,並浸於消毒液內。
- 蝦隻應用潔淨的開水或已經消毒的水(例如:經紫外線消毒)沖洗乾淨。
- 小心預算生蝦刺身的需求量,以免製作過量。

#### 具體例子2:青木瓜沙律

#### 以下是製作青木瓜沙律的控制重點

CCP — 製作沙律的青木瓜條 和蔬菜應放在專用的 容器內並用蓋或保鮮 紙蓋好,然後貯存在 攝氏4度或以下的雪 櫃內。



#### Important points to note

- Food premises with supply of shrimp sashimi should have already obtained
  the permission to prepare and sell sashimi from the Food and Environmental
  Hygiene Department. The food premises should observe the licensing
  requirements and conditions on the production and sale of sashimi relating to
  the food licence.
- It is not advisable to buy raw shrimps from local market stalls or seafood fresh
  provision shops for the preparation of shrimp sashimi. Under the Food Safety
  Ordinance, all food premises are required to keep records of acquisition of food
  for examination.
- Shrimps should not be kept alive in any fish tank or container outside refrigerator.
- Separate designated area shall be delineated in the food preparation area for the preparation of sashimi only.
- Separate equipment shall be provided for the preparation of sashimi. They
  should always be properly cleansed and sterilised before and after use. During
  business hours, all knives used in the preparation of sashimi shall be placed in
  the knife sterilisation apparatus and immersed in the sterilisation solution when
  they are not in use.
- Shrimps should be thoroughly rinsed with clean boiled water or sterilised water (e.g. by ultraviolet sterilisation).
- The quantity required for sale should be well estimated to avoid leftovers.

#### Specific example 2. Green papaya salad

## Diagram showing the CCP for production of green papaya salad CCP – Green papaya strips and Purchase

Green papaya strips and salad vegetables should be stored exclusively in containers and covered by lids or cling wrap. They should be stored inside refrigerator maintained at 4°C or below.



#### 注意要點

- 製作沙律的青木瓜條和蔬菜應徹底洗淨,並以潔淨的開水或已經消毒的水(例如:經紫外線消毒)洗去表面的污垢和細菌。
- 使用專用洗滌槽或洗滌盆來洗淨製作沙律的青木瓜和蔬菜,以防止 交叉污染。在使用洗滌槽或洗滌盆前最好先消毒。
- 用作拌匀配料的器皿每次用後都要徹底洗淨。

#### 具體例子3:去骨鳳爪沙律

#### 以下是製作去骨鳳爪沙律的控制重點

- CCP1 急凍鳳爪應存放在冷 藏櫃內,溫度要保持 在攝氏零下18度或 以下。
- CCP 2 急凍鳳爪應放在攝氏 4度或以下的雪櫃內 解凍。
- CCP 3 配製好的急凍鳳爪應 放在專用的容器內並 用蓋或保鮮紙蓋好, 然後貯存在攝氏4度 或以下的雪櫃內。



#### 注意要點

- 應向合乎衞生和可靠的供應商購買鳳爪。
- 用潔淨的開水或已經消毒的水(例如:經紫外線消毒)把鳳爪沖洗乾淨。
- 製作鳳爪沙律的蔬菜應按上文例子2的方法處理。
- 用作拌匀配料的器皿每次用後都要徹底洗淨。

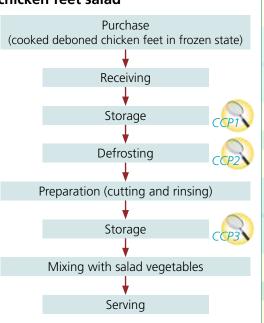
#### Important points to note

- Green papaya and salad vegetables should be thoroughly washed and rinsed by clean boiled water or sterilised water (e.g. by ultraviolet sterilisation) to wash away the dirt and bacteria on them.
- Designated sink or tub should be used for washing and rinsing green papaya and salad vegetables so as to prevent the risk of cross contamination. Sanitisation of the sink or tub before use is recommended.
- After each mixing, the utensils should be thoroughly cleaned.

#### Specific example 3. Boneless chicken feet salad

### Diagram showing the CCPs for production of boneless chicken feet salad

- CCP 1 Frozen chicken feet should be stored in freezer with temperature at -18°C or below.
- CCP 2 Frozen chicken feet should be thawed in refrigerator with temperature at 4°C or below.
- ccp3 Prepared chicken feet should be stored exclusively in containers and covered by lids or cling wrap. They should be stored inside refrigerator maintained at 4°C or below.



#### Important points to note

- Chicken feet should be obtained from reliable suppliers that maintain good hygiene practices.
- Chicken feet should be thoroughly rinsed with clean boiled water or sterilised water (e.g. by ultraviolet sterilisation).
- Salad vegetables for mixing with chicken feet should be prepared as shown at specific example 2.
- After each mixing, the utensils should be thoroughly cleaned.

#### 製作泰式冷盤須知

- 所有即食配料應用潔淨的開水或已經消毒的水(例如:經紫外線消毒) 沖洗乾淨。
- 碟上用以盛載食物的生菜葉應按上文例子2的方法處理。
- 沙律醬料應貯存在容器內並用蓋或保鮮紙蓋好,然後貯存在攝氏4度或以下的雪櫃內。
- 如須運送即食冷盤,送貨車輛的車廂在途中應密封;即食冷盤應妥為 包好,並冷藏在攝氏4度或以下。
- 為有效地監察各項控制措施,應定時量度並記錄雪櫃內的溫度。
- 如使用冰塊保存雪櫃內即食的食物,應使用供人食用的冰塊,詳情可參考《在食肆製造和處理冰塊的衛生指引》。

http://www.cfs.gov.hk/tc\_chi/multimedia/multimedia\_pub/files/ice\_in\_food.pdf

#### Additional notes on preparation of Thai cold dishes

- All ready-to-eat food ingredients should be thoroughly rinsed by clean boiled water or sterilised water (e.g. by ultraviolet sterilisation).
- Lettuce leaves put on plates for holding food should be prepared as salad vegetables as shown at specific example 2.
- Salad dressings should be stored in containers and covered by lids or cling wrap. They should be stored inside refrigerator maintained at 4°C or below.
- If transportation is required, all ready-to-eat cold dishes should be well packed and transported in enclosed vehicle under refrigeration with temperature at 4°C or below.
- To ensure good monitoring of the control measures at the critical control points, the storage temperatures should be regularly checked and recorded.
- If ice is used for storage with ready-to-eat food in the refrigerator, edible ice should be used. Guidelines on Hygienic Production and Handling of Ice in Food Premises should be referred.

http://www.cfs.gov.hk/english/multimedia/multimedia\_pub/files/ice\_in\_food.pdf