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## 預先包裝凍食肉類需要加熱進食嗎？ Prepackaged Cold Cuts to be Eaten Cold or Cooked?

食物安全中心風險評估組  
科學主任林伏波博士和莊梓傑博士

Reported by Dr. Violette LIN and Dr. Ken CHONG, Scientific Officers  
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預先包裝凍食肉類因受細菌污染而回收，是全球都曾出現且備受關注的食品安全問題。今年七月，食物安全中心分別指示回收一款受沙門氏菌污染的進口**莎樂美腸**及一款受李斯特菌污染的進口**火雞煙肉**。凍食肉類可於雪櫃保存一段時間，部分屬即食食品，而部分則需經烹調方可食用。究竟凍食肉類可保存多久？是否必須加熱烹煮？本文將探討這些問題，並分享如何利用食物標籤作出明智選擇。

### 什麼是凍食肉類？

凍食肉類（又稱切片凍肉、冷吃肉類等）一般是預先烹煮及／或經醃製處理後冷吃的肉類，亦包括部分需再加熱烹調的醃肉製品。醃製是指將適量鹽分和硝酸鹽／亞硝酸鹽等物質添加至生或熟肉中，以達到防腐、增色和提味效果。凍食肉類最初為應對食物短缺而生，後演變為貴族專享的高級美食，最終普及至大眾享用。雖然醃製食物有助延長凍食肉類的保質期，此類食品仍屬必須冷藏的易壞食物，而即食的凍食肉類（即食用前毋須再次烹調）更屬高風險食物。若業界和消費者處理或貯存不當，食物從生產設施至消費者家中期間，均有可能受到污染。

### 凍食肉類的保質期受多重「抑制因素」控制

將生肉製成凍食肉類時，除了加熱外，還會使用其他方法（如煙燻、乾燥、醃製、真空包裝和發酵）配合，以延長產品保質期。這些方法創造了抑制因素，形成不利於微生物生長的環境。**表1**列舉部分可納入凍食肉類製造流程食物安全重點控制系統（HACCP）計劃的抑制因素。

**表1：減慢凍食肉類中微生物生長的抑制因素例子**

抑制因素	例子
物理	<ul style="list-style-type: none"> <li>• 低溫（如冷藏）</li> <li>• 低水活性（如添加鹽以減低水活性）</li> <li>• 低含氧量（如真空包裝以減低含氧量）</li> <li>• 低酸鹼值（即增加食物的酸性）</li> </ul>
化學	<ul style="list-style-type: none"> <li>• 防腐劑（如添加山梨酸、硝酸鹽或亞硝酸鹽）</li> </ul>

細菌（包括致病細菌）在凍食肉類上的生長受多種物理因素影響，例如溫度、鹽分、水活性（即可供微生物生長

Prepackaged cold cuts contaminated with bacteria leading to food recalls is a known and concerning practice globally. This July, a **salami** (*Salmonella*-contaminated) and a **turkey bacon** (*Listeria monocytogenes*-contaminated) were imported but were later recalled under the instructions of the Centre for Food Safety. These cold cuts can be kept in the refrigerator for use within a certain period of time. Some cold cuts are ready-to-eat (RTE), while some require further cooking. So how long can they be stored? Do we need to cook them? This article will discuss these questions and illustrate how to use their food labels in making informed choices.

### What are cold cuts?

Cold cuts (aka deli meats, cold meats, etc.) are usually precooked and/or cured meats that are served cold, while they also include cured meats that require further cooking. Curing is the addition of appropriate amounts of salt and nitrates/nitrites among other substances to raw or cooked meat for preservation, colour and flavour enhancement. They started as a way to survive food shortages, then transitioned into a popular and premium delicacy enjoyed by nobles and later by everyone. While curing extends the shelf life of cold cuts, they are perishable (i.e. need to be kept under refrigeration), and those RTE ones (i.e. further cooking is not necessary before consumption) are high-risk foods. They are vulnerable to contamination from production facilities to our homes if traders and consumers mishandle or improperly store them.

### The shelf life of cold cuts is controlled by multiple “hurdles”

Heating is one preservation method in making cold cuts from raw meat and other methods (e.g. smoking, drying, curing, vacuum packaging, and fermentation) have been used in combination to extend the shelf life of these products. These create inhibitory factors (“hurdles”) that are unfavourable environments for microbial growth. **Table 1** shows some of these factors which can be included in the Hazard Analysis and Critical Control Point (HACCP) plan in the cold cuts manufacturing processes.

**Table 1:** Examples of hurdles for slowing microbial growth in cold cuts

Hurdles	Examples
Physical	<ul style="list-style-type: none"> <li>• Low temperature (e.g. refrigeration)</li> <li>• Low water activity (<math>a_w</math>) (e.g. reducing <math>a_w</math> by adding salt)</li> <li>• Low oxygen content (e.g. reducing oxygen by vacuum packaging)</li> <li>• Low pH value (i.e. increasing the acidity of food)</li> </ul>
Chemical	<ul style="list-style-type: none"> <li>• Preservatives (e.g. adding sorbates and nitrites/nitrates)</li> </ul>

The growth of bacteria including the pathogenic bacteria on cold cuts is determined by a number of physical factors such as temperature, salt content, water activity ( $a_w$ ) (i.e. water available for microbial growth), pH and so on. Each type of bacteria has an optimum temperature, salt content,  $a_w$  and pH for growth. For example, *Listeria monocytogenes* grows from pH 4.4 to 9.4, while the growth rate would be reduced under conditions close to the extremes of the pH range. Each factor, if not at optimum, can be a hurdle to microbial growth, and hurdles originating from different factors can be combined for retarding

的水分)和酸鹼度等。不同細菌有最適合其生長的溫度、鹽分、水活性和酸鹼值範圍。例如李斯特菌可於酸鹼值4.4至9.4間生長，但當環境接近酸鹼值範圍的極端時，其生長速度會減慢。每項因素不在最佳值時，都可成為抑制微生物生長的因素，而多重因素的結合可有效抑制微生物生長。以醃製肉類為例，加入鹽分可將肉類中的水分活性降至0.98至0.96左右，有助減慢細菌生長，而加入防腐劑(如亞硝酸鹽)可抑制微生物生長，亦會令醃製肉類呈粉紅色。

### 根據食物標籤指示貯存和處理凍食肉類

即使凍食肉類具備抑制細菌生長的多重因素，凍食肉類仍有明確的保質期限。此外，消費者如處理不當(如開封後存放過久)亦會增加微生物風險。因此，生產商應透過食物標籤(圖一)向消費者傳達重要食物安全資訊，包括：

- 是否需要進一步加熱處理；以及
- 未曾開封產品的「此日期或之前食用」及貯存標示(如溫度、期限)，以及開封後的食用時限等。

除遵從標籤指示外，消費者切勿食用任何有變壞跡象(如發霉、表面黏滑、有異味等)的食品。此外，高危人士應避免食用凍食肉類，或於食用前徹底加熱。

#### 重點提示

1. 預先包裝凍食肉類一般由經烹煮和醃製生肉製成，屬高風險食物，部分產品或須作加熱處理。
2. 凍食肉類屬易壞食物，須妥善冷藏，以防細菌滋生。
3. 依照食品標籤上的指示處理凍食肉類。

#### 給業界的建議

- 從可靠的供應商採購凍食肉類。
- 全程冷藏貯存凍食肉類，並監察貯存、運輸和展示時的溫度。
- 在預先包裝凍食肉類上明確標示貯存條件和食用指引，讓消費者可安全處理產品。

#### 給市民的建議

- 細閱食品標籤上的貯存和處理指示。
- 盡早食用預先包裝凍食肉類，冷藏未食用部份並於建議時限前食用完畢。
- 高危人士應避免食用凍食肉類。如要食用，必須徹底加熱。

microbial growth. For cured meat, salt reduces the  $a_w$  in meat to about 0.98 to 0.96 which helps to slow bacterial growth. The addition of the preservative nitrite also inhibits microbial growth as well as producing the pink colour in cured meat.

### Storing and handling cold cuts according to the instructions on the food label

Despite the presence of hurdles to microbial growth, cold cuts have a defined shelf life. In addition, mishandling by consumers, e.g. extended storage after opening, may create microbiological risks. Thus, manufacturers should convey important food safety messages for consumers on the food labels (Figure 1), for instance:

- recommendations on further heat treatment; and
- storing instructions (e.g. temperature and duration) for unopened (the use-by date) and the remaining product (e.g. use within certain days).

Apart from adhering to the label instructions, consumers should not eat the product if any of the spoilage signs are present (e.g. mould, slimy texture and foul smell). Moreover, susceptible populations should avoid cold cuts or reheat them before eating.

#### Key Points to Note

1. Prepackaged cold cuts are usually prepared by cooking and curing raw meat which are high-risk foods, and heat treatments may be needed for some.
2. Cold cuts are perishable. Refrigerate them properly to prevent bacterial growth.
3. Handle cold cuts according to the food label instructions.

#### Advice to the Trade

- Source cold cuts from reliable suppliers.
- Keep cold cuts under refrigeration and monitor the temperature of storage, transportation, and display of these products.
- Provide storage conditions and instructions for use on prepackaged cold cuts for consumers to handle the products safely.

#### Advice to the Public

- Read the food label for the storage directions and handling instructions.
- Consume the prepackaged cold cuts as soon as possible and finish any refrigerated remaining products before the recommended duration.
- Susceptible populations should avoid cold cuts. If necessary, reheat them before consumption.



圖1：凍食肉類的食品標籤例子，標示貯存和使用說明  
Figure 1: Examples of food labels showing the storage and usage instructions for cold cuts

## 更安全的街頭小食：調查發現和實用建議 Making Street Food Safer: Survey Insights and Practical Tips

食物安全中心風險傳達組  
科學主任陳蓉蓉女士報告

Reported by Ms. Melva CHEN, Scientific Officer,  
Risk Communication Section, Centre for Food Safety

街頭小食深受本地市民和遊客喜愛。琳瑯滿目的小食店提供各式美食，涵蓋燒賣、咖喱魚蛋、鹵水串等鹹點，雞蛋仔等甜點和清新的水果茶等。然而，街頭小食日益盛行，令食物安全和衛生問題這些不容忽視的議題備受關注。

過去二十年，街頭小食並非食物中毒的主要來源。食肆內未經煮熟或未完全煮熟的菜式，如生蠔和蛋製品，才是導致食物中毒的主要原因。不過，近年亦曾出現零星個案，例如冷食鹵水豬生腸串和美食節的鹹水雞受沙門氏菌污染，顯示街頭小食的安全仍值得關注。沙門氏菌可引致嚴重食物中毒，症狀包括噁心、嘔吐、腹痛和發燒，對幼童和長者尤為危險。

### 調查發現

街頭小食店常於人流密集的地方營業，每日接待大量顧客，或容易忽略安全措施。為識別知識上的不足及可改善的

Street food is beloved by both locals and tourists. Vibrant stalls offer a wide range of snacks from savoury siu-mai, curry fish balls, and lo-shui skewers to sweet egg waffles and refreshing fruit tea. Yet, this popularity brings increasing attention to food safety and hygiene, which cannot be overlooked.

Street food has not been the major source of food poisoning in the past two decades. Nonetheless, isolated incidents in recent years, including Salmonella contamination in cold-served lo-shui pig oviduct skewers and salty chicken at food expos, highlight that street food safety remains a concern. Salmonella can cause severe food poisoning, with symptoms like nausea, vomiting, abdominal cramps, and fever. It is especially dangerous for young children and the elderly.

### Survey Insights

Street-food stalls often operate in crowded spaces and serve high volumes of customers, making it easy to overlook proper safety measures. To identify knowledge gaps and areas for improvement, the Centre for Food Safety (CFS) conducted a survey on the knowledge,



範疇，食物安全中心於 2024 年透過問卷、實地考察和面對面訪談，進行了一項有關街頭食物從業員的知識、態度及行為的調查。結果顯示，相關從業員大多具備基本衛生知識，尤其是明白必須徹底煮熟食物。他們普遍亦對食物安全持正面態度和遵守基本衛生原則，例如採用「先入先出」原則處理材料和食物，和每日進行深層清潔。然而，研究亦發現個別從業員的衛生習慣未如理想，例如在轉換工序期間未有更換手套、同時處理金錢和食物、在室溫下解凍凍肉類、未有將凍食保持在攝氏 4 度以下，以及未有把熟食蓋好就存放於雪櫃中。這些不良習慣會危害食物安全。固定鋪位的食物處理人員（通常是全職人員）較臨時攤檔或兼職員工更注重食物安全。值得注意的是，曾受過相關培訓或持有食物衛生督導員證書的食物處理人員，在知識和態度方面明顯表現更佳。食安中心於同期亦透過消費者聯繫小組收集來自消費者方面的意見。有成員表示，若他們發現攤檔在備製食物時使用不潔用具，或攤檔出現蒼蠅和蟑螂，會令他們不想光顧。選擇街頭小食時，他們會同時留意員工和攤檔的衛生狀況。

### 實用建議

根據上述調查結果，食安中心就街頭小食店發出業界指引，內容涵蓋個人衛生、環境衛生和食物處理，並重點討論值得關注的範疇。指引亦包括一份為臨時食物攤檔主辦單位和經營者而設的須知，並提供了食物環境衛生署（食環署）墟市申請指南和衛生督導員訓練課程的連結。食環署強烈鼓勵所有食物處理人員定期參加由食安中心免費提供的食物安全講座，並鼓勵街頭小食店經營者考取衛生督導員證書。部分消費者因對街頭小食攤檔衛生有疑慮而卻步，反映食物安全與生意好壞息息相關。在競爭激烈的市場中，忽視衛生風險會損害顧客健康和自身聲譽。

消費者光顧街頭小食店時，應挑選衛生情況良好、正確處理食物的攤檔，並選擇即場烹煮、熱騰騰奉上的食物。避免食用放置過久的食物。食用前應徹底清潔或消毒雙手。高危人士如長者、幼童、孕婦和免疫力較弱的人士，應避免進食高風險的街頭食物，包括冷盤和凍飲，如預製冷麵、鹵水串、沙律、冰凍甜品和飲品等。這些食物容易滋生細菌。他們亦應避免進食任何生或未徹底煮熟的食物。

總括而言，街頭小食店是都市飲食文化的重要一環，但經營者必須在維持攤檔吸引力和保持對食物安全的警覺之間取得平衡。透過採納食安中心的指引、積極參與培訓和把衛生放在首位，經營者可在保障公眾健康的同時，確保業務蓬勃發展。

1. 攤檔乾淨，配有洗手設施和有蓋垃圾桶。  
Clean stall, with handwashing facilities and covered trash bins.
2. 食物處理人員穿著乾淨的衣服，紮起或覆蓋頭髮，戴上口罩，並不徒手提供食物。  
Food handlers wear clean clothing, tie their hair up or cover it, wear a mask, and do not serve food with their bare hands.
3. 食物有屏障保護，流動快，不長時間在室溫存放。  
Food is protected by barriers, has a fast turnover and is not kept for long at room temperature.
4. 熱食即場烹調或重新加熱。  
Hot food cooked or reheated on the spot.
5. 凍食在凍櫃中展示。  
Cold food displayed in a chiller.
6. 雪櫃內的食物蓋好並整齊存放。  
Food covered and stored neatly in the refrigerator.



圖2：消費者在選擇街頭小食店時可留意的事項  
Figure 2: Points to note for consumers when choosing street food stalls

attitudes, and practices of street food handlers in 2024. Through questionnaires, site visits, and face-to-face interviews, it was found that most handlers demonstrated basic hygiene knowledge, particularly the need to cook food thoroughly. They also showed a generally positive attitude to food safety and practised basic hygiene, such as practising first-in-first-out of food ingredients and products and carrying out daily deep cleaning. However, the study also identified several problematic practices by certain food handlers, including not changing gloves between tasks, handling money and food simultaneously, thawing frozen meat at room temperature, failing to maintain cold foods below 4°C, and storing cooked food uncovered in refrigerators. Such malpractices can compromise food safety. Handlers from permanent stalls, usually full-time, showed a stronger commitment than those from temporary stalls or part-time workers. Notably, handlers with food safety training or a food hygiene supervisor certificate scored significantly higher in knowledge and attitude tests. The CFS also collected consumers' view around the same period through the [Consumer Liaison Group](#). Some members expressed that the use of unclean utensils during food preparation and the appearance of flies and cockroaches in the stalls would deter them from purchasing. When choosing street food, they would pay attention to the hygiene of both the staff and stalls.

### Practical Tips

Based on these findings, the CFS issued [trade guidelines on street food stalls](#) covering personal hygiene, environmental hygiene, and food handling, with a focus on areas of concern. The guidelines also contain a note for temporary food-stall organisers and operators with links to the Food and Environmental Hygiene Department (FEHD) bazaar application guide and hygiene supervisor course. The FEHD strongly encourages all food handlers to attend food safety talks that are provided free by the CFS regularly, and street food operators to acquire a hygiene supervisor certificate. The hesitation of certain consumers to buy from street food stalls showed that food safety is closely tied to business success. In a competitive market, overlooking hygiene risks can harm both customers and business reputation.

Consumers visiting food stalls should choose vendors that look clean and handle food properly, and opt for items that are cooked on the spot and served hot instead of food that has been left out for a long time. They should wash or sanitise their hands before eating. For susceptible groups such as the elderly, young children, pregnant women, and those with weakened immunity, they should avoid high-risk street foods. These include cold dishes and drinks such as pre-prepared cold noodles, lo-shui skewers, salads, chilled desserts, iced drinks, etc., which are prone to bacterial growth. They should also refrain from eating any raw or undercooked food.

Overall, street-food stalls play an important role in urban culture and gastronomy, yet they must strike a balance between vibrancy and vigilance. By adopting the CFS's guidelines, pursuing training, and prioritising hygiene, operators can protect public health while ensuring that their businesses thrive.

## 簡單步驟，慎防包裝受損的預先包裝食物 Simple Steps to Avoid Tampered Prepackaged Food

購買或收取預先包裝食物時，留意包裝是否完整對確保食物安全至關重要。應從持牌和信譽良好的店鋪選購。留意異常氣味或外觀，並檢查包裝是否有被破壞的跡象，例如封口破損或包裝受損。如發現懷疑有問題的產品，應立即向零售商或生產商反映。

如使用食品雜貨送遞服務，應確保有充足空間存放食物，並有人在家收貨。收貨時應立即檢查食物包裝有否滲漏、膨脹、接合處損毀、封口破損、瓶蓋已被打開、刮花或嚴重凹陷等情況。切勿食用**罐身膨脹、嚴重凹陷**或瓶身破裂的產品，因為這些情況可能代表食物已受污染，應立即聯絡供應商。此外，緊記檢查食物的食用限期，並細閱標籤，以便作出知情選擇。

只要遵從以上簡單步驟，便能有助確保所購買的預先包裝食物安全可靠。

When buying or receiving prepackaged food, pay attention to the integrity of the packaging, as it is of importance in ensuring food safety. Always purchase from licensed and reputable shops. Watch out for abnormal odour or appearance. Check for any signs of tampering, such as broken seals or damaged packaging. Report any doubtful products to the retailer or manufacturer.

If you are ordering grocery delivery service, ensure that you have adequate space for storage and someone is at home to receive the groceries. Upon receiving, check the food immediately for leakage, swelling, damaged seams, broken seals/opened caps, scratches and major dents. Do not consume products with **bulging or severely dented cans** or cracked jars as these can indicate contamination. Contact the vendor right away. Always check expiry dates, and read labels carefully to make informed choices.

By following these simple steps, you can help ensure that the prepackaged food purchased is safe and trustworthy.

## 加強規管預先包裝的蒟蒻果凍 Enhancement in the Control of Prepackaged Jelly Confectionery Containing Konjac

《2025年食物及藥物（成分組合及標籤）（修訂）規例》（《修訂規例》）已獲立法會以先訂立後審議的方式**通過**，旨在加強規管預先包裝的蒟蒻果凍。《修訂規例》將於2026年4月1日起實施。屆時高度或闊度不超過45毫米的迷你杯裝蒟蒻果凍將禁止在市場上出售。

《修訂規例》規定預先包裝蒟蒻果凍的最外層包裝上，須在顯眼位置以中文和英文清楚可閱地標明下述字樣：

注意：勿一口吞食，長者及兒童須在監護下食用。

Caution: Do not swallow whole. Elderly and children must consume under supervision.

食物安全中心已與相關持份者合作，透過向學校發信、舉辦講座和於社交媒體分享資訊等方式，加強有關防止食物哽噎的健康教育，以保護高危人士和推廣**安全的進食習慣**。

The Food and Drugs (Composition and Labelling) (Amendment) Regulation 2025 was **passed** by the Legislative Council by negative vetting. It aims to strengthen the regulation of prepackaged konjac-containing jelly confectionery and will come into effect on 1 April 2026. Prepackaged mini-cup konjac-containing jelly confectionery will be prohibited for sale if their height or width do not exceed 45 millimetres.

The Amendment Regulation requires that the outermost packaging of prepackaged konjac jelly products must be clearly and legibly marked, in a conspicuous position, with the following words in both Chinese and English:

注意：勿一口吞食，長者及兒童須在監護下食用。

Caution: Do not swallow whole. Elderly and children must consume under supervision.

The Centre for Food Safety has worked with relevant stakeholders to enhance health education on choking prevention, including issuing letters to schools, organising seminars, and sharing information on social media in order to protect vulnerable groups and promote **safe consumption practices**.



## 風險傳達工作一覽（二零二五年九月）

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