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為安全燒烤做好準備 Preparing for Safe Barbecuing

食物安全中心風險傳達組
科學主任游天頌先生報告

Reported by Arthur YAU, Scientific Officer,
Risk Communication Section, Centre for Food Safety

在天氣涼爽的日子，燒烤是深受歡迎的戶外活動。與親友共享美食之餘，亦須注意食物安全，以免引致食源性疾病。本文將從選購食材、烹煮到食用等環節，概述安全燒烤的要點。

選購食材

在超級市場或店舖選購食材時，建議留待最後才選購冷凍和冷藏食品（如肉類和海產），以縮短食物置於室溫的時間，減低細菌滋生的風險。此外，應將生肉和海產在購物車內與其他食物分開擺放，並檢查包裝上的有效日期。

Barbecuing is a cherished outdoor activity during the cooler months, providing a wonderful opportunity to enjoy delicious food outdoors with family and friends. However, ensuring food safety while barbecuing is essential to prevent foodborne illnesses. This guide outlines how to prepare for safe barbecuing, covering aspects from shopping for ingredients to cooking and serving.

Shopping for Ingredients

When shopping at supermarkets or shops, it is advisable to buy frozen and chilled items, such as meat and seafood, last. This practice minimises the time these items spend at room temperature, thereby reducing the risk of bacterial growth. Furthermore, keep raw meat and seafood separate from other foods in your shopping cart. Always check the expiry dates on packages.



圖1：燒烤時，食物需徹底煮熟以消滅病原體，並避免燒焦
Figure 1: When barbecuing, cook food thoroughly to eliminate pathogens but avoid charring

解凍

準備食材時，必須徹底解凍冷凍食品。燒烤部分結冰的肉類，容易導致食物未完全煮熟。解凍應在攝氏0度至4度的冷藏格內進行。視乎肉塊大小，解凍或需時一晚甚至更長時間。切勿將食物置於室溫下解凍，以免助長有害細菌滋生。

醃製及處理

醃製燒烤食物能增添風味，但必須安全地進行。已醃製的食物應存放於雪櫃冷藏。為保持衛生和避免交叉污染，處理生的食物時應使用獨立器具（如夾子、叉、即棄手套和碟）。預備沙律或配菜時，須用流動清水徹底洗淨新鮮蔬果，並與生的食物分開包裝。

包裝和運送

包裝時應使用防漏的獨立容器存放生肉或醃製食物，避免交叉污染。如需將食物帶往別

Defrosting

Complete **defrosting** of frozen items is an important step in the preparation process. Barbecuing meat with icy spots can lead to undercooking. When defrosting frozen food for BBQ, it should be done in the chiller, where temperatures remain between 0°C and 4°C. Depending on the size of the meat, the defrosting process may require an overnight period or longer. Avoid defrosting food at room temperature, as this encourages the growth of harmful bacteria.

Marinating and Handling

Marinating your barbecue items can significantly enhance their flavour, but it is vital to do so safely. Keep marinated food chilled in the refrigerator. To prevent cross-contamination and maintain cleanliness, always use separate utensils, such as tongs, forks, disposable gloves and platters when handling raw food. When preparing salads or side dishes, it is essential to wash fresh fruits and vegetables thoroughly under running water before use and to pack them separately from raw food.

Packing and Transport

When packing, use separate, leak-proof containers for raw or marinated foods to avoid cross-contamination. If you are transporting food to another location, insulated coolers are an excellent option for keeping items cold. Ensure that the food is packed securely to prevent

處，應使用保溫箱保持食物冷凍。確保食物包裝穩妥以防溢出，並用獨立的保溫箱存放生食和即食食品。運送途中，保溫箱應避免陽光直射，並確保易壞食物保持在攝氏 4 度或以下和限制食物擺放在室溫下的時間。處理熟食和即食食品時應遵從「[二小時 / 四小時原則](#)」，即置於室溫超過四小時的食物便應棄掉。

徹底和安全地煮熟食物

徹底烹煮食物能有效消滅可致病的有害細菌。一般而言，食物中心溫度須達到攝氏 75 度並維持至少 30 秒。要確保食物徹底煮熟，可使用探針式[食物溫度計](#)檢查。如有懷疑，寧可把肉類煮久一點，亦不應冒未熟透的風險。燒烤時用錫紙包裹食物，有助鎖住熱力，並可阻隔熱源釋出的煙霧。此外，如食物在燒烤過程中直接接觸火焰、或熔化的油脂滴在熱源（如燒熱的炭）上，有機會形成可能有害的[多環芳香族碳氫化合物](#)（PAHs）。為減少攝入燒烤食物中的 PAHs，建議在燒烤前切去肉類可見的脂肪、預先將肉類煮至半熟（如水煮）、避免讓油脂滴在炭上、用錫紙包裹肉類燒烤以防煙火污染、將肉類遠離熱源以防燒焦，並切掉食物燒焦的部分。無論採用何種方法，肉類仍需徹底煮熟以消滅病原體。

安心享用

食物經煮熟後便可享受，但仍需緊記以下數點。食物煮熟後應盡快食用，並使用清潔的碟子和餐具，避免交叉污染。燒烤固然是賞心樂事，但亦應注意均衡飲食，多吃蔬果。燒烤食物多以肉類為主，應避免過量進食。

注意事項

1. 冷凍食品須於冷藏格內徹底解凍，或需時一晚或更久；
2. 在包裝、存放及處理食物時避免交叉污染；
3. 食物必須徹底煮熟；以及
4. 切去燒焦部分、避免食物直接接觸火焰和防止油脂滴在熱源上，以盡量減少攝入燒烤食物中的 PAHs。

只要遵從這些指引，並保持良好手部衛生，便能為安全又愉快的燒烤做足準備。從選購、解凍、烹煮到食用，確保食物安全是無憂享受戶外盛宴的關鍵。在享受燒烤樂趣的同時，也應兼顧健康和食物安全。

spills, and use separate coolers for raw and ready-to-eat items. During transport, keep your cooler out of direct sunlight and ensure that it maintains a temperature of 4°C or below for perishable items. It is also important to limit the time food is left at room temperature. Adhering to the “[2-hour / 4-hour rule](#)” for cooked and ready-to-eat food is advisable: food that has been left at room temperature for more than four hours should be discarded.

Cook Thoroughly and Safely

Cooking food thoroughly is vital to eliminate harmful bacteria that can cause illness. For most food, the internal temperature should reach 75°C for at least 30 seconds. To ensure that food is thoroughly cooked, needle-type [food thermometers](#) can be useful for checking doneness. If in doubt, it is better to cook the meat a little longer than risk undercooking. Using foil to wrap food during barbecuing can help retain heat while shielding the food from fumes emitted by the heat source. Additionally, in order to reduce exposure to potentially harmful [polycyclic aromatic hydrocarbons](#) (PAHs) from BBQ food, which may form when food is in direct contact with flames or when melted fat drips onto heat sources like hot charcoal, it is advisable to trim visible fat from meat before barbecuing, partially cook the meat (e.g. by boiling) before barbecuing, avoid dripping fat onto the charcoal, grill meat in foil packets to avoid contamination from smoke and flame, place the meat further from the heat source when barbecuing to avoid charring of meat, and to remove charred parts of food. In any case, the meat should still be cooked thoroughly to eliminate pathogens.

Enjoy

Once everything is cooked, it is time to enjoy the meal, but a few final tips should be kept in mind. Serve cooked food immediately after preparation. Always use clean platters and utensils when serving to avoid cross-contamination. Although barbecuing is a delightful experience, it is important to maintain a balanced diet that includes plenty of vegetables and fruits. Overindulgence in barbecued items, which often contain more meat, should be avoided.

Key Points to Note:

1. Defrost frozen food completely by keeping it in the chiller overnight or longer;
2. Prevent cross-contamination during packaging, storing, and handling;
3. Cook food thoroughly; and
4. Minimise exposure to PAHs from BBQ food by removing charred parts, avoiding direct flame contact and preventing fat from dripping on the heat source.

By following these guidelines and maintaining proper hand hygiene, you can prepare for a safe and enjoyable barbecue. From shopping and defrosting to cooking and serving, ensuring food safety is key to having a worry-free outdoor feast. Enjoy your grilling while maintaining health and food safety.

帶飯一族：解讀風險，守護健康

Lunch Bringers: Decoding the Risks and Safeguarding Your Health

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

不少人習慣自備午餐盒到工作地點享用，但一些小疏忽可能會帶來食物安全風險。以下三個日常例子說明了常見錯誤和可從中汲取的教訓。

Many people prefer to bring their own lunch to work, but a few slip-ups can quickly turn it into a food safety risk. Below are three everyday stories where things went wrong, and the lessons learnt.



圖1：白切雞飯盒、用真空保溫瓶盛載的粟米粥和火腿三文治

Figure 1: Lunch box with poached chicken, corn congee prepared with vacuum-insulated flask and ham sandwich.

個案一：嫩滑雞肉，帶來劇烈腹痛

市場推廣主任Phyllis十分喜歡昨夜晚飯白切雞的嫩滑滋味。為了隔天能再度品嚐，便把剩菜與白飯裝進飯盒，放入手袋中，經兩小時車程帶回辦公室享用。午餐時，為了保持雞肉鮮嫩多汁，她只把飯盒用微波爐加熱了一分鐘，未有徹底翻熱便食用。翌日早上，她便出現發燒、腹痛和腹瀉的症狀。

隱藏風險：這個案涉及一連串的失誤。首先，雞肉本身可能未完全煮熟，或已滋生各種病原體，在晚餐及上班途中長時間處於危險溫度範圍，細菌便會迅速繁殖。再者，微波爐加熱時間太短，食物受熱不均，容易留下「冷點」，無法有效消滅病原體。未煮熟的雞肉常含有沙門氏菌，可引致嘔吐、腹瀉、腹痛及發燒，長者和幼童的症狀通常較為嚴重。

提示：雞肉應徹底煮熟至中心溫度達攝氏 75 度或以上。剩菜應盡快冷藏，運送時使用保溫袋及冰包。翻熱食物時必須徹底，中途攪拌一下，確保食物整體熟透。

個案二：有驚無險的粥品變酸之謎

軟件開發員Helen為求在早上節省時間，於是在睡前把米、粟米和沸水倒進真空保溫瓶，以為翌日便可在辦公室享用一頓暖心午餐。午飯時，她滿心期待地打開保溫瓶，卻傳來一股酸味，只好失望地把粥倒掉。其實，這股酸味可能讓她避過一劫。

隱藏風險：真空保溫瓶並非煮食工具。粥在瓶內放了一夜，溫度已進入攝氏4度至60度的危險溫度範圍。米飯中常見的蠟樣芽孢桿菌孢子，在煮沸過程中仍可能存活，並產生毒素。同時，粟米含天然糖分，為造成食物腐敗的細菌和酵母菌提供了理想生長環境。幸好，變酸的粟米提醒了Helen不要食用，因為米粥中可能含有的病原體，例如蠟樣芽孢桿菌及其毒素，通常難以察覺。

提示：熱食須保持高溫。粥應徹底煮熟至沸騰。保溫瓶在使用前先用沸水預熱，並在注滿後馬上密封，以保持溫度。切勿把食物在保溫瓶中存放過夜。

個案三：方便火腿三文治引起突發腸胃不適

建築地盤主管Simon為了方便，經常吃三文治作午餐。他在工作前一晚準備了火腿三文治，但事前沒有徹底洗手。他把三文治存放在雪櫃，翌日早上取出後，便隨手與熱咖啡放進同一個袋中。午飯時，他在地盤匆匆吃完趕著開工。不久後，他突然感到噁心，並多次嘔吐及無法在當天繼續工作。

隱藏風險：金黃葡萄球菌常見於人體皮膚、鼻腔和雙手。Simon沒有洗手便製作三文治，細菌便會轉移到火腿上。當三文治在袋中溫度回升，細菌便會大量繁殖並產生耐熱的毒素。這些毒素無法經翻熱消滅，並通常在進食受污染食物後數小時內，迅速引致噁心、嘔吐、胃痛甚至腹瀉等症狀。

提示：處理食物前必須徹底洗手。冷食須保持低溫，三文治應存放在雪櫃直至食用，並以保溫袋和冰包運送，切勿與熱食一同存放。放置在室溫下超過四小時的三文治不應食用。緊記金黃葡萄球菌產生的毒素一旦形成，即使翻熱食物也無法消滅。

保障食物安全

自備餐盒時，應遵從食物安全五要點：精明選擇安全原材料；保持雙手、用具和食物接觸面清潔；生熟食物要分開；徹底煮熟和翻熱食物；以及把食物存放於安全溫度（熱食保持於攝氏60度以上，冷食保持於攝氏4度或以下）。如需長時間運送，務必使用冰包、保溫袋或預熱的保溫瓶，讓食物保持在安全溫度範圍內。這樣，自備的午餐才能為你提供能量，讓你充滿活力地完成一天的工作。

Case 1 – Tender Chicken, Painful Cramps

Phyllis, a marketing executive, loved the taste of silky Cantonese [poached chicken](#) from last night's dinner. Wanting to enjoy it again, she packed the leftovers with rice into her lunchbox and slipped it into her handbag for her two-hour commute. At the office, she microwaved the chicken rice for only a minute without reheating it thoroughly, as she wanted to keep the chicken tender and juicy. By the next morning, she developed fever, abdominal pain and diarrhoea.

The hidden risk: This was a chain of errors — the [chicken](#) portion involved might have been undercooked to begin with, and can harbour various pathogens, which can multiply rapidly while food sits too long in the temperature danger zone during dinner and travel, and a short microwave blast often leaves cold spots, allowing pathogens to survive. [Salmonella](#) is commonly found in undercooked chicken. It can cause vomiting, diarrhoea, abdominal pain and fever. Symptoms are more severe in the elderly and young children.

Tips: Cook chicken until the centre reaches 75°C or above, refrigerate leftovers quickly, and use insulated bags with ice packs during transport. Always reheat food thoroughly, stirring halfway to ensure it is steaming hot all the way through.

Case 2 – The Mystery of Sour Congee, A Close Call

Helen, a software developer, liked the idea of saving time in the morning. Before bed, she poured rice, corn, and boiling water into her vacuum-insulated flask, imagining a hearty meal waiting for her at her desk. At lunch time, she opened it with excitement — only to be hit by a sour smell. Disappointed, she poured it away, but in truth, that sourness may have spared her from something worse.

The hidden risk: A vacuum-insulated flask is not a cooker. Overnight, the congee entered the temperature danger zone of 4°C to 60°C, and the spores of [Bacillus cereus](#), typically found in rice that can survive boiling, might have produced toxins. Meanwhile, corn contains natural sugars, which provide an ideal environment for spoilage bacteria and yeasts to grow. Luckily, the sour corn warned Helen not to consume the congee because most pathogens such as [Bacillus cereus](#) and their toxins that might be present in the rice congee would not be noticeable.

Tips: Keep hot food hot. Cook the congee until it is steaming hot. Pre-warm the flask with boiling water before filling it, then seal it tightly to maintain the temperature. Do not leave food in a flask overnight.

Case 3 – Handy Ham Sandwiches, Sudden Upset

Simon, a construction site supervisor, often relied on sandwiches for his convenience. The night before work, he made himself a ham sandwich but did not wash his hands thoroughly beforehand. He stored the sandwich in the fridge and, the next morning, grabbed it and placed it in the same bag with his hot coffee. By lunchtime on site, he wolfed it down quickly before getting back to work. Not long after, he was hit with sudden nausea and repeated vomiting that left him unable to continue working that day.

The hidden risk: [Staphylococcus aureus](#) commonly lives on human skin, in the nose, and on hands. When Simon prepared the sandwich without washing his hands, the bacteria were transferred onto the ham. As the sandwich warmed up in his bag, the bacteria multiplied and produced heat-stable toxins. These toxins cannot be destroyed by reheating and are responsible for the rapid onset of symptoms — typically nausea, vomiting, stomach pain, and sometimes diarrhoea — within just a few hours of eating the contaminated food.

Tips: Always wash hands thoroughly before preparing food. Keep cold food cold — store sandwiches in the fridge until eaten, and transport them with insulated bags and ice packs. Do not pack cold sandwiches together with hot items. Never eat sandwiches that have been left at room temperature for more than four hours. Remember, once [Staphylococcus aureus](#) toxins form, they cannot be removed, even if the food is reheated.

Keep Your Food Safe

When bringing a packed meal, it is still essential to follow the [Five Keys to Food Safety](#): Choose fresh, safe ingredients; Clean hands, utensils, and surfaces; Separate raw and ready-to-eat foods; Cook and reheat food thoroughly; and Safe temperature: keep hot food hot (>60°C) and cold food cold (≤4°C). For longer transport, especially make sure food stays within safe temperature ranges by using ice packs, insulated bags, or pre-warmed flasks. That way, your packed lunch fuels you and keeps you going through the day.

生乳芝士與產志賀毒素大腸桿菌 Raw Milk Cheese and Shiga Toxin-producing *E. coli* (STEC)

2025年9月，食物安全中心呼籲市民不要食用一批從法國進口、可能受產志賀毒素大腸桿菌污染的預先包裝生牛奶芝士，並指示業界停售及回收有關產品。

大腸桿菌是動物和人類腸道中常有菌叢的一部分。大部分大腸桿菌都是非致病性的，但某些大腸桿菌菌株可引致腸胃疾病，當中以產志賀毒素大腸桿菌尤其值得關注。產志賀毒素大腸桿菌可引發出血性腹瀉和可致命的溶血尿毒症，破壞腎臟血管，甚至引致腎衰竭。

部分芝士生產商堅持使用生乳（即未經巴士德消毒的奶類）製作芝士，認為可保留傳統風味，避免生乳經巴士德消毒後改變味道。不過，消費者須注意，由生乳製成的芝士存在受有害細菌（如產志賀毒素大腸桿菌、李斯特菌和沙門氏菌）污染的固有風險。高危人士，包括孕婦、嬰幼兒、長者和免疫力較弱人士，應避免食用生乳芝士和未知有否經巴士德消毒的軟芝士，或確定芝士徹底煮熟後才食用。

In September 2025, the Centre for Food Safety urged the public not to consume a batch of prepackaged raw milk cheese imported from France due to possible contamination with Shiga toxin-producing *E. coli* (STEC) and instructed traders to stop selling and recall the products.

E. coli are part of the common flora found in the intestines of animals and humans. Most of them are non-pathogenic, but certain strains can lead to gastrointestinal illness; STEC is of particular concern. STEC can cause bloody diarrhoea and life-threatening haemolytic-uraemic syndrome (HUS), which damages kidney blood vessels and can lead to kidney failure.

Some cheese producers continue to make raw (unpasteurised) milk cheese because they believe it preserves traditional flavours that pasteurisation would alter. Consumers must be aware that cheese made from raw milk poses inherent risks of contamination with harmful bacteria (e.g. STEC, *Listeria monocytogenes* and *Salmonella*). Susceptible populations, including pregnant women, infants and young children, the elderly, and immunocompromised individuals, should avoid raw milk cheese and soft cheeses of unknown pasteurisation status, or ensure they are thoroughly cooked before consumption.

慎防食物中的致敏物 Beware of Allergens in Food

外出用餐固然愉快，但食物過敏人士務必保持警惕，格外留意致敏物。許多菜式可能含有隱藏成分，例如麵包內的麩質、醬料中的甲殼類和魚類等，可隨時引發過敏反應。此外，如食物處理人員未徹底清潔用具或雙手，亦有機會因之前曾處理其他食物而出現致敏物交叉污染。點餐前，應主動向侍應表明過敏情況，讓他們向廚房人員查詢詳情。

選購預先包裝食品時，應細閱配料表，並挑選不含致敏物的替代品。除常見致敏物如雞蛋、牛奶、大豆、堅果、亞硫酸鹽、魚類、甲殼類和麩質外，還需留意產品標籤上的「可能含有」警告字句，提醒消費者該產品有機會受之前生產工序影響而帶有微量致敏物。

如進食後出現舌頭、面部或嘴唇腫脹、呼吸困難、感到不適並全身出疹等症狀，應立即求醫。只要提高警覺，便可安全享用美食。如欲了解更多致敏物資訊，可瀏覽食物安全中心網站。

Dining out can be a delightful experience, but it is essential for people who have food allergy to stay vigilant about food allergens. Many dishes may contain hidden ingredients that can trigger allergic reactions, such as gluten in bread or crustaceans and fish in sauces. Furthermore, allergen cross-contamination from previous food preparation is possible if utensils and hands are not thoroughly washed. Always inform your serving staff about any allergies before placing your order. They can check with the kitchen team to learn more.

When shopping for prepackaged food, check out the ingredient list and select allergen free alternatives. Other than looking out for common allergens like eggs, milk, soybeans, nuts, sulphites, fish, crustaceans and gluten in the ingredient list, also look out for any “may contain” statements that warn of minute carry-over from previous production runs.

If you experience symptoms like swollen tongue, face or lips, breathing difficulties or feeling unwell with generalised rash after eating, seek medical help immediately. Remember, awareness is key to enjoying your meals safely. For more information on allergens, visit the CFS website.



風險傳達工作一覽（二零二五年九月）

Summary of Risk Communication Work (September 2025)

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