

食物安全焦點

Food Safety Focus



食物安全中心
Centre for Food Safety

二零一六年二月 · 第一百一十五期
February 2016 · 115th Issue
ISSN 2224-6908



食物環境衛生署
Food and Environmental
Hygiene Department

由食物環境衛生署食物安全中心於每月第三個星期三出版
Published by the Centre for Food Safety, Food and Environmental Hygiene Department on every third Wednesday of the month

本期內容 IN THIS ISSUE

焦點個案

二零一五年食物事故回顧

食物安全平台

第1組食物致癌物 - 你正在吃嗎?

食物事故點滴

瑤柱中的重金屬

肉類含發光菌

風險傳達工作一覽

Incident in Focus

Review of Food Incidents in 2015

Food Safety Platform

Group 1 Carcinogens in Food - Are You Eating Them?

Food Incident Highlight

Heavy Metals in Dried Scallops

Glowing Bacteria in Meat

Summary of Risk Communication Work

焦點個案 Incident in Focus

二零一五年食物事故回顧

Review of Food Incidents in 2015

食物安全中心
風險管理組
吳珏翹醫生報告

Reported by Dr. Albert KK Ng, Medical & Health Officer,
Risk Management Section,
Centre for Food Safety

為保障公眾健康，食物安全中心(中心)一直密切留意海外食物安全當局及傳媒報道的海外食物事故，並評估這些事故對本港的影響。如事故有可能危及本港市民的健康，中心便會採取適當的控制措施。

二零一五年的食物事故

二零一五年，中心一共監察到約1 300宗食物事故，以及500宗因未有標示致敏物而發起的食物回收行動。針對關乎本港市民健康的事故，中心發出了53則新聞公報、32則業界警報和6則食物事故報表。事故涉及的危害類型包括化學物(例如除害劑殘餘)、微生物(例如李斯特菌)、物理危害(例如異物)和未有標示致敏物。各類危害的百分比載於下圖。中心已即時針對上述事故採取控制措施。

To protect public health, the Centre for Food Safety (CFS) monitors overseas food incidents reported by overseas food authorities and the mass media, assesses their local impact and implements appropriate control measures for those incidents with local relevance and potential public health risk.

Food Incidents in 2015

In 2015, the CFS identified about 1 300 food incidents, and 500 food recalls related to undeclared allergens. The CFS issued 53 press releases, 32 trade alerts and 6 food incident posts on incidents with potential local public health relevance. The hazards identified included chemical (e.g. pesticide residues), microbiological (e.g. *Listeria monocytogenes*), physical (e.g. foreign body) and undeclared allergens. The breakdown is summarised in the pie chart below. Prompt control measures were implemented immediately.

編輯委員會 EDITORIAL BOARD

總編輯

何玉賢醫生

顧問醫生(社會醫學)(風險評估及傳達)

行政編輯

楊子橋醫生

首席醫生(風險評估及傳達)

委員

黃宏醫生 首席醫生(風險管理)

白諾文獸醫 高級獸醫師(風險評估)

陳詩寧獸醫 高級獸醫師(獸醫公共衛生)

張麗娟女士 高級總監(食物安全中心)

何樑成先生 高級總監(食物安全中心)

董立仁醫生 高級醫生(風險傳達)

曾志堅先生 高級化驗師(食物化驗)

Editor-in-chief

Dr. Y Y HO

Consultant (Community Medicine)
(Risk Assessment and Communication)

Executive Editor

Dr. Samuel YEUNG

Principal Medical Officer
(Risk Assessment and Communication)

Members

Dr. Christine WONG

Principal Medical Officer (Risk Management)

Dr. Christopher BRACKMAN

Senior Veterinary Officer (Risk Assessment)

Dr. Allen CHAN

Senior Veterinary Officer
(Veterinary Public Health)

Ms. L K CHEUNG

Senior Superintendent (Centre for Food Safety)

Mr. L S HO

Senior Superintendent (Centre for Food Safety)

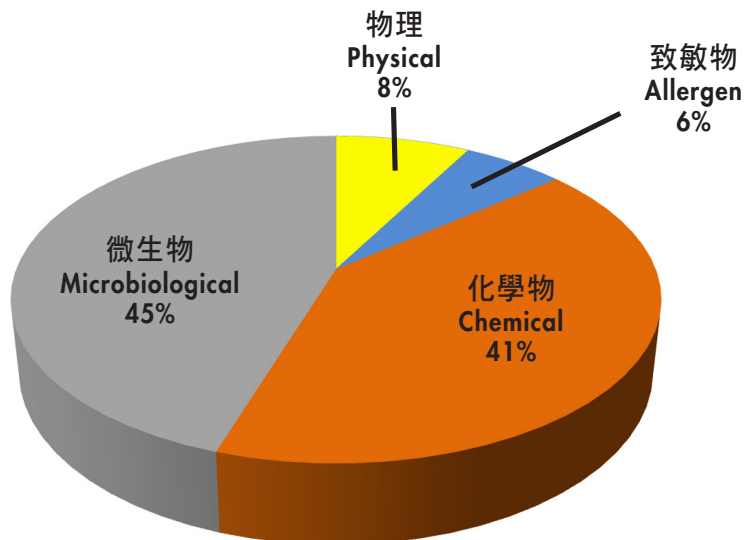
Dr. Duncan TUNG

Senior Medical Officer (Risk Communication)

Mr. C K TSANG

Senior Chemist (Food Chemistry)

本港就食物事故所發出的警報中涉及的危害類型
Types of hazard involved in local alerts due to food incidents



焦點個案
Incident in Focus

以下是二零一五年曾引起公眾和傳媒廣泛關注的三宗食物事故：

1. 台灣茶葉產品含過量除害劑殘餘

二零一五年，台灣當局公布有多款當地市面出售的茶葉／花茶樣本被驗出含除害劑殘餘，水平超出當地標準。因應市民的關注，中心除就事件與台灣有關當局保持聯絡外，亦已即時加強抽查茶葉和花茶作除害劑殘餘的檢測。直至二零一五年年底，中心共抽取了273個茶葉及花茶樣本作除害劑檢測，除一個茉莉花茶樣本的三唑磷含量超出台灣標準外，其餘的樣本全部合格。按該樣本驗出的三唑磷含量，在一般飲用量的情況下，不會對健康造成不良影響。

中心已指令業界停止出售有關產品，並呼籲市民不要沖泡受影響的產品。

2. 煙三文魚樣本驗出含李斯特菌

二零一五年三月，澳門當局通報指一批從香港入口的煙三文魚受李斯特菌污染。中心接報後即時展開詳細調查，包括到涉事的食品製造廠實地視察，並抽取樣本作李斯特菌檢測。由於有一個煙三文魚樣本被驗出李斯特菌，中心指令生產商全面回收所有受影響批次的產品，並停止有關生產線的運作，以進行徹底清洗消毒。

3. 天津爆炸事故觸發對供港食物安全的關注

二零一五年八月，天津一個貯存化學品的倉庫發生連串強烈爆炸，本港市民和傳媒擔心當地環境會受有害化學物(特別是氰化物)污染，影響內地輸港食物的安全。

事故發生後，中心一直與內地有關部門保持密切聯繫。根據內地部門當時的資料，天津的供港註冊農場自二零一五年年初起並無蔬果或活生水產到港。中心的資料亦顯示，天津自爆炸事故後並無向本港供應食用動物。

為謹慎起見，中心抽驗了天津鄰近地區出產的供港食品(包括蔬菜、水果及水產食用動物)，所有樣本均不含氰化物。

總結

為保障食物安全，中心多管齊下，確保能及時掌握食物事故消息，並從風險評估、風險管理和風險傳達三方面擬定對策。

Three food incidents in 2015 which attracted considerable interest from public and media are highlighted below-

1. Excessive pesticide residues in tea products in Taiwan

In 2015, the Taiwanese authorities announced a number of tea leaf / floral tea samples taken from the Taiwan market were found to have pesticide residue levels exceeding prevailing Taiwanese regulatory standards. To address possible public concern in Hong Kong, apart from communicating with the Taiwanese authorities over the issue, the CFS had also stepped up surveillance on tea leaf and floral tea for pesticide residues immediately. As at the end of 2015, 273 tea leaf and floral tea samples were tested for pesticide residues. All samples were found satisfactory except for a sample of jasmine floral tea which contained triazophos at a level that exceeded Taiwan regulatory standards. Based on the level of triazophos detected in the sample, adverse health effects would not be caused under usual consumption.

The CFS instructed the trade to stop selling the affected products and advised members of the public not to consume affected products.

2. Listeria monocytogenes detected in a smoked salmon sample

In March 2015, in view of Macau's report that a batch of smoked salmon imported from Hong Kong was contaminated with *Listeria monocytogenes*, the CFS immediately followed up by carrying out a detailed investigation of the case, including site inspection of the food factory and taking samples for testing of *Listeria monocytogenes*. One smoked salmon sample collected at the factory was found to have *Listeria monocytogenes*. The CFS instructed the manufacturer concerned to recall all affected batches of its product and to suspend the production line to carry out thorough cleansing and disinfection.

3. Safety concern of food products supplied to Hong Kong after explosions in Tianjin

In August, there was a series of devastating explosions at a chemical storage facility in Tianjin. Fears of environmental pollution by hazardous chemicals (especially cyanides) aroused concerns among the local population and media on the safety of food imported from the Mainland.

Following the occurrence of the incident, the CFS has been maintaining close contact with the Mainland authorities. At that time, according to the Mainland authorities, no vegetables, fruits or live edible aquatic animals from registered farms in Tianjin had been exported to Hong Kong since early 2015. Our records also showed that no live food animal had been imported from Tianjin since the explosion.

To allay public concerns, the CFS has taken samples of food products from areas around Tianjin (e.g. vegetables, fruits and edible aquatic animals) for testing. Our tests did not detect any cyanide in any of the samples taken.

Conclusion

The CFS is committed to protecting food safety by detecting and managing food incidents promptly through risk assessment, risk management and risk communication strategies.

風險傳達
工作一覽
Summary of
Risk Communication Work

風險傳達工作一覽 (二零一六年一月) Summary of Risk Communication Work (January 2016)	數目 Number
事故/食物安全個案 Incidents / Food Safety Cases	100
公眾查詢 Public Enquiries	44
業界查詢 Trade Enquiries	199
食物投訴 Food Complaints	380
給業界的快速警報 Rapid Alerts to Trade	7
給消費者的食物警報 Food Alerts to Consumers	0
教育研討會/演講/講座/輔導 Educational Seminars / Lectures / Talks / Counselling	36
上載到食物安全中心網頁的新訊息 New Messages Put on the CFS Website	40



第1組食物致癌物 – 你正在吃嗎？

Group 1 Carcinogens in Food – Are You Eating Them?

食物安全中心
風險評估組
科學主任游天頌先生報告

Reported by Mr. Arthur YAU, Scientific Officer,
Risk Assessment Section,
Centre for Food Safety

上期我們介紹了國際癌症研究機構(IARC)對致癌物質的分類系統。這期我們會探討本港食物中較常見的第1組致癌物。

雖然IARC已指出第1組物質會“令人類致癌”，但由於部分物質無處不在，要令其從食物供應中絕迹是不可能的。話雖如此，只要改變生活習慣，還是能避免吃下部分含致癌物的食物的。

黃曲霉毒素

黃曲霉毒素是一組由某些霉菌產生的天然有毒污染物，是自然界毒性最烈的致癌物之一。黃曲霉毒素可導致肝癌，對乙型肝炎帶菌者尤其危險。人類攝入黃曲霉毒素的途徑主要是食用花生和玉米，但該毒素也存在於乾果、堅果、香料、植物毛油和大米等。

有報告指全球高達三成的肝癌個案是由黃曲霉毒素所引致。在香港，據香港首個總膳食研究引述，本港某些人口組別的乙型肝炎帶菌者比率，可高達10%。此外，該研究估計，本港市民因攝入黃曲霉毒素而引致肝癌的病例約為8宗，佔二零一零年本港肝癌的發病率不足1%，故市民無須過分恐慌。聯合國糧食及農業組織/世界衛生組織聯合食品添加劑專家委員會(下稱JECFA)建議把黃曲霉毒素的攝入量盡量減至最低。食物中的黃曲霉毒素雖然無法根除，但可採用優良務農規範，把含量減到最低，同時避免大部分農產品被拒收的後果。為減少攝入黃曲霉毒素，市民應光顧可靠的食物零售商；把穀物製品存放在陰涼乾燥的地方；留意食物的食用期限；以及丟棄發霉或損壞的食物。

In the previous issue, we introduced the classification system of the International Agency for Research on Cancer (IARC) on agents that cause cancers. In this issue, we will discuss some of the Group 1 carcinogens that are more commonly found in locally consumed foods.

Although Group 1 agents are deemed “carcinogenic to humans” by the IARC, some cannot be totally eliminated from the food supply due to their ubiquitous nature. We can, however, avoid consuming some of the food that contains carcinogens as their consumptions is a matter of lifestyle choices.

Aflatoxins

Aflatoxins (AFs) are a group of natural toxic contaminants produced by certain moulds. It is well understood that AFs are among the most potent carcinogen in nature that can cause liver cancer, especially for populations who have hepatitis B. The main source of human exposure is through peanuts and maize, although AFs are also found in dried fruits, nuts, spices, crude vegetable oil, rice, etc.

It has been reported that AFs cause up to 30% of all liver cancer cases in the world. In Hong Kong, up to 10% of some groups of Hong Kong population is hepatitis B carrier as quoted in the First Hong Kong Total Diet Study. Furthermore, the First Hong Kong Total Diet Study estimated that AFs contributed less than 1% (about 8 cases) of the incidence rate of liver cancer in 2010. There is no cause for undue alarm. The Joint FAO/WHO Expert Committee on Food Additives (JECFA) recommends that AFs intake be reduced to as low as practically possible. While complete elimination is not possible, the AFs level in crops can be minimised through the use of good agricultural practice without rejecting majority of the crops produced. The public should purchase food from reliable retailers, store grain products properly in cool and dry places, look out for the expiration date of food and discard mouldy or damaged food in order to reduce exposure to AFs.



四種含有第1組致癌物的食物
Four types of foods containing Group 1 carcinogens

中式鹹魚

中式鹹魚在製作和蒸煮過程中會形成N-亞硝基化合物，已知會令人患鼻咽癌。有研究指出，進食中式鹹魚的次數和持續時間與患鼻咽癌之間存在量效關係；十歲以下兒童如經常食用中式鹹魚，兩者的關聯性更強。因此，消費者進食鹹魚應淺嘗即止。

加工肉類

加工肉類是指經過鹽漬、發酵或以其他增加口味或改善保存的方法處理過的肉類或內臟，例如香腸、鹹牛肉和肉乾等。流行病學數據顯示加工肉類與大腸癌有關聯。加工肉類在製作過程中可能會產生致癌物質。醃製肉類時所使用的硝酸鹽和亞硝酸鹽在人類的

Chinese-style salted fish

Chinese-style salted fish is known to cause nasopharyngeal cancer (NPC) in humans. N-nitroso compounds can be formed during the production and steaming of Chinese-style salted fish. It has been suggested that there is a dose-dependent relationship between frequency and duration of the consumption and the risk for NPC, especially for childhood consumption up to 10 years of age. Consumers should only consume Chinese-style salted fish in moderation.

Processed meat

Processed meat refers to meat or offal that has been salted, fermented or transformed by other methods to improve preservation or enhance flavour. Examples of processed meat include sausages, corned beef and jerky. Epidemiological data suggest that processed meat is linked to colorectal cancer. Carcinogens may form during processing, while nitrates and

消化腸道內可被細菌轉化為N-亞硝基化合物，其中一些有可能令人類致癌。因此，加工肉類不宜過量食用。

苯並[a]芘

苯並[a]芘是一種毒理性質相近的多環芳香族碳氫化合物 (Polycyclic Aromatic Hydrocarbons, 簡稱PAHs)。由於有機物質的不充分燃燒及熱解都會產生PAHs，因此PAHs在環境中無處不在，周圍環境和食物(包括食油)都含有PAHs，但含量差距很大。JECFA引述研究報告指，人類從膳食中攝入的苯並[a]芘主要來自穀類食品和食油。食物安全中心在二零零四年進行的研究中發現，烹製燒烤肉類或燒烤時的烹煮溫度越高，或食物距離熱源越近，其PAHs含量便越高。

炭燒食物的PAHs含量高於以氣體爐或電爐燒烤的食物。JECFA指出，減少PAHs的整體攝入量意味着苯並[a]芘的攝入量亦得以減少，反之亦然。為此，消費者在燒烤前應切去可見的脂肪，以免火焰驟升；切去燒焦的部分；以及避免過量食用燒烤肉類。

預防癌症 減少攝入致癌物質

食物中的致癌物質雖然無法盡除，但可把危害減到最低。要預防癌症，市民應保持均衡飲食及健康的生活模式。

下一期我們將探討酒精與癌症的關係。

nitrites used for curing meats may be transformed by bacteria in the human digestive tract to N-nitroso compounds, of which some are carcinogenic. Excessive consumption of processed meat should be avoided.

Benzo[a]pyrene

Benzo[a]pyrene (B[a]P) is a type of polycyclic aromatic hydrocarbons (PAHs) contaminant, which they share similar toxicological properties. PAHs are ubiquitous in the environment as they are formed during incomplete combustion or pyrolysis of organic materials, and therefore are present in the environment and food (including oil), where the level varies widely. Studies quoted by JECFA suggested that cereals and oils are major sources of dietary B[a]P. Locally, a 2004 Centre for Food Safety study found that the higher the cooking temperature or the closer the distance from the heat source when preparing barbecued meats or during BBQ, the more PAHs were generated.

Charcoal grilling gives rise to more PAHs in foods than gas or electric roasting. JECFA suggests that reduction of the overall PAHs exposure can also reduce the B[a]P exposure and vice versa. To minimise exposure, consumers should remove visible fat that can cause a flare-up before barbecuing, cut charred portions off the meat and avoid overindulge in barbecued meat.

Reducing Cancer Risk through Minimising Carcinogen Exposure

Although it is impossible to completely eliminate all carcinogens from food, the risk from carcinogens in food can be reduced. The public should maintain a balanced diet and a healthy lifestyle to minimise the risk for cancer.

In the next issue, we shall discuss the relationship between alcohol and cancer.



瑤柱中的重金屬

近日有本地傳媒報道，指瑤柱因環境污染問題恐受重金屬污染。

受生活環境和覓食習慣影響，帶子及扇貝體內(尤其是內臟)或會積聚各類有害的物質(例如砷、鎘、鉛和汞等)。在瑤柱的乾製過程中，重金屬會進一步集中在其組織內。不過，瑤柱是以帶子和扇貝的閉殼肌製成的，內臟已被丟棄不用。

食物安全中心一直定期檢測食物的重金屬含量。在過去五年，共抽取了31個瑤柱樣本檢測各種重金屬的含量，結果全部合格。無論如何，消費者在購買瑤柱時，應光顧可靠的店鋪。

Heavy Metals in Dried Scallops

Recently, local media have expressed concern about heavy metal contamination of dried scallops due to environmental pollution.

Scallops can accumulate heavy metals (including arsenic, cadmium, lead, mercury, etc.) especially in the viscera due to their habitat and feeding behaviour. As dried scallops have undergone a process of drying, heavy metals would be concentrated further in the tissue. Nevertheless, dried scallops are made from the adductor muscles with viscera removed.

The Centre for Food Safety has been conducting routine surveillance for heavy metals in foods. In the past five years, 31 dried scallop samples have been taken for testing of various heavy metals. All results were satisfactory. Still, consumers are advised to patronise reliable shops when buying dried scallops and maintain a balanced diet to minimise the risk of exposure to heavy metals.

肉類含發光菌

肉類如受螢光假單胞菌等發光菌污染，在黑暗中或會發光。傳媒亦有報道這個現象，指有消費者發現生豬肉表面出現藍綠色螢光。

據文獻記載，螢光假單胞菌廣泛存在於植物、土壤、水面和其他環境中。該菌的最佳生長溫度是25至30°C，但在4°C也能存活。該發光菌會產生水溶性的綠色螢光色素，這個現象在低鐵的環境中尤為明顯。

一般來說，螢光假單胞菌對人體無害。肉類含螢光假單胞菌本身對消費者無害，只是反映了衛生情況可能欠佳，業界須加以重視，例如在清潔屠體和處理肉類方面採取措施。煮食過程可消滅這種細菌。消費者在烹製食物時，應保持良好的個人/食物衛生，避免煮好的食物受到污染。肉類如出現變壞迹象，例如有異味或肉質有變，便應丟棄。

Glowing Bacteria in Meat

Meat contaminated by photobacteria, such as *Pseudomonas fluorescens*, may glow in the dark. This phenomenon has been reported by the media when some consumers found greenish blue fluorescence on the surface of raw pork.

According to literature, *P. fluorescens* inhabit plants, soils, water surfaces and many other environments. They grow best in 25-30°C and sustain at 4°C. The photobacteria produce a soluble, greenish fluorescent pigment, particularly under conditions of low iron availability.

P. fluorescens pose no health threat to the public in general. Their presence in meat is not injurious *per se* to the consumer, although this may be an indication of unsanitary conditions requiring trader's attention, such as carrying out carcass cleaning and meat handling procedures. Cooking can destroy these bacteria. When preparing food, consumers are advised to maintain good personal/ food hygiene and avoid food contamination after cooking. Discard meat if it has spoilage signs such as odd odour or texture.