

Improving Product Quality And Safety

改善產品質素及安全



The Council undertakes research and test consumer products with the aim to evaluate the safety, efficacy, ease of use, durability and environmental sustainability of the products. The impartial, accurate and reliable research and test results enable consumers to make rational choices, while also encouraging manufacturers to improve the quality and safety of products.

消委會從產品的安全、效能、使用方便程度、耐用程度及產品對環境的影響等多方面，進行研究及測試工作。客觀、準確及可靠的報告有助消費者理性選擇，同時也促使生產者改善產品質素及安全。

Research and Test Reports

During the year, 60 product research and test reports were published in CHOICE magazine. When products were found to fall short of full compliance with mandatory or international standards, the Council notified the relevant government regulatory bodies for immediate follow-up action, while also making recommendations to the manufacturers and their agents for product improvement. Throughout the years, the Council's product testing and research have proven to be an effective mechanism in enhancing safety and quality of products.⁸

Types of Product Tests

Product tests published in CHOICE can be categorised into three types.

Firstly, those initiated by the Council and solely conducted using its own resources. The majority of these are conducted by accredited and independent laboratories in Hong Kong. Should local testing facilities fail to meet the Council's requirements, appropriate overseas laboratories were commissioned.

研究及測試報告

年內《選擇》月刊發表的產品研究及測試報告共60份。當測試發現產品未能符合相關標準規定或國際標準，本會會隨即通知政府執法部門即時跟進，及建議製造商及其代理商改善產品。長久以來，本會的產品測試及研究有效提升產品的品質及安全。⁸

產品測試的種類

在《選擇》月刊公布的測試可劃分為三個類別。

第一類是由本會獨立發起及進行的測試，資源由本會獨力承擔。此類測試大部分由本會委託香港認可及獨立的測試機構進行。若本地未能符合所需的測試要求，便交由海外的實驗室測試。



⁸ See Appendix 8 and 9 for the lists of product testing reports, product indepth studies and market survey reports published during 2013-14. 於2013-14年公布的產品試驗報告、產品研究及市場調查報告一覽表見附錄八及九。

The second type concerns joint tests conducted by International Consumer Research and Testing (ICRT). The ICRT is an international consortium of more than 35 independent consumer organisations. As an active member, the Council has benefited from the ICRT's joint tests through which resources and experience from other markets can be effectively utilised.

The third type of test involves the Council working in collaboration with various local government and statutory organisations to conduct and publish joint product tests and reports.

第二類是參與國際消費者研究及試驗組織 (ICRT) 的聯合測試，ICRT 的成員包括世界各地超過35個消費者組織。作為ICRT的活躍成員，本會透過參與其主辦的聯合測試，有效運用其他地方的資源和經驗。

第三類是本會聯同本地不同政府部門及法定團體進行及出版的測試和報告。

Food 食品

Antibiotics and Sugars Adulteration in Honey

The Council's study concerning 55 samples of honey collected in the market attracted significant public attention as the product, regarded by many as natural and healthy, was found to contain antibiotic residues, pesticide residues and/or sugars adulteration.

Small quantities of antibiotic residues including streptomycins, sulfonamides, tetracyclines and quinolones, were detected in six samples, while traces of the pesticide residue amitraz were found in an additional six.

For the first time, analysis was conducted on sugars adulteration as well as the geographical origin. Results indicated that 14 samples had been adulterated with sugars. According to The Codex Alimentarius Commission standard, honey shall not have added to it any food ingredient, including food additives, nor shall any other additions be made other than honey. The analysis of geographical origin was based on the examination of the plant species of pollen in the honey samples and in seven samples, discrepancies were found between the origin as detected in the analysis and the origin as labelled or described.

蜂蜜檢出抗生素及攙糖

本會測試了55款蜂蜜樣本，檢驗發現樣本含有殘餘抗生素、殘餘除害劑以及/或有攙糖的情況。由於蜂蜜一向是公認的天然和健康食品，測試報告引起公眾廣泛關注。

六款樣本驗出小量的殘餘抗生素，包括鏈霉素類、磺胺類藥、四環素類和喹諾酮類。另有六款檢出微量除害劑（俗稱農藥）雙甲脒。

這是首次檢測蜂蜜有否攙糖，及其聲稱的產地是否吻合。結果顯示有14款樣本攙雜了糖分。根據食品法典委員會的標準，蜂蜜不應加入任何食物配料，包括食物添加劑，蜂蜜必須天然純正。蜂蜜產地的檢測是基於蜂蜜樣本內花粉所屬的植物品種來判斷。七款樣本依據分析所得的生產地，與樣本標籤上或聲稱的生產地或產品說明並不吻合。



Heavy Metals in Rice

A total of 34 samples of white rice and 10 samples of brown rice were tested during the Council's study concerning rice. The study raised concerns about the safety of the staple food for the majority of people in Hong Kong as excessive levels of cadmium - a harmful heavy metal - were detected in three samples. The amount exceeded the limit stipulated in the local regulations. It was the first time that the public had been made aware that rice contaminated with excessive cadmium was on sale in Hong Kong as the specific brand names involved were disclosed.

Under the Food Adulteration (Metallic Contamination) Regulations of Hong Kong, the cadmium content of rice shall not exceed the legal limit of 0.1 mg/kg. One of the three samples in question was found to contain a cadmium concentration of 0.223 mg/kg. Health experts have warned that prolonged intake of food with high cadmium level may have adverse effects on kidney function.

The report reminded consumers of the importance of having a varied and balanced diet to avoid excessive exposure to certain chemicals or contaminants from a small range of food items.

Genetically Modified Food

In a study concerning genetically modified (GM) corn ingredients in corn and corn-based food products conducted jointly by the Consumer Council and Centre for Food Safety (CFS), 49 samples comprising corn-on-cob, corn kernel, corn soup, cornmeal/corn grit, baby food and snack samples were tested. Of those tested, a presence of GM corn ingredients was detected in 12 samples.

The Guidelines on Voluntary Labelling of GM Food (the Guidelines) issued by the CFS recommends food containing more than 5% of GM materials must apply "positive labelling" to indicate the presence of "genetically modified" materials. The test found five samples had exceeded the threshold level of 5%, with a highest level of 64%. However, all of these samples did not disclose on the label the presence of GM ingredients.

Mandatory labelling of all or specific types of GM food is already in place in many areas including the European Union, Australia, New Zealand, Japan, South Korea, Taiwan and Mainland China. The Council urged that Hong Kong should follow suit and introduce mandatory labelling of GM food in line with international best practice.

Claims about Blenders and Juicers

A study by the Council examined several questionable health claims made by manufacturers of blenders and juicers.

食米含重金屬

本會測試34款白米和10款糙米，三款檢測出過量有害重金屬鎘，含量超出本港法例的限量。報告首次證實有含過量鎘成分的食米在本港市面銷售。鑑於米是大部分香港人的主要食糧，其安全性備受關注。

根據本港《食物攪雜（金屬雜質含量）規例》的規定，食米的鎘最高准許含量是0.1毫克/公斤。三個問題樣本中，一個樣本的鎘含量為0.223毫克/公斤。醫學專家警告，長期攝取鎘有可能損害腎臟。

報告提醒消費者，進食不同種類的食物及保持均衡飲食十分重要，此舉可減低從少數食物中攝入過多某種化學物或污染物的風險。

基因改造食品

本會與食物安全中心合作，測試49款粟米和以粟米為主要配料的預先包裝食物所含的基因改造粟米成分，包括粟米棒、粟米粒、粟米湯、粟米粉/粟米渣、嬰幼兒食品及零食。當中12款檢出基因改造粟米成分。

根據食物安全中心的《基因改造食物自願標籤指引》，如食物含5%或以上基因改造成分，建議在包裝上作「正面標籤」，以註明含「基因改造」成分。測試發現五款樣本的基因改造粟米成分超出這5%的臨界水平，其中一款樣本更高達64%。但上述樣本均沒有作「基因改造」標示。

適用於全部或特定種類基因改造食物的強制性標籤制度，已經在歐盟、澳洲、新西蘭、日本、南韓、台灣及中國內地實施。本會促請政府，盡快推行強制性基因改造食物標籤制度，緊貼國際監察標準。

攪拌機及榨汁機的健康聲稱

本會對於製造商就攪拌機及榨汁機所作的健康聲稱，進行研究。

Some blenders sampled in the report carried claims that they could help consumers eat the whole fruit by blending the juice and seeds together for easy consumption. But while the seeds of some fruits are edible, there is a risk that the consumption of some seeds may lead to intoxication.

Other products carried claims that juice extracted by blenders could assist in weight loss despite the fact that one glass of juice contains more sugar and calories than a single piece of whole fruit. Therefore, drinking fruit juice may not be able to achieve the stated purpose.

While some of the claims made by the manufacturers implied that the appliances could extract most of the nutritional benefits out of the fruit or vegetable for better absorption, the Council was of the view that faster absorption rate should not be interpreted as evidence of more nutrients being absorbed. Dietitians interviewed as part of the study warned that fast absorption of sugars from food or juice may lead to an elevation of blood sugar, which is undesirable especially for diabetics.

有攪拌機樣本附有聲稱，謂它們把果肉及果子粉碎並混合，有助消費者進食整個水果。惟消費者須留意，儘管一些水果的種子可以食用，但另一些卻有可能會導致食物中毒。

部分產品則聲稱製成的果汁有助纖體，但事實上一杯果汁的糖分和卡路里比吃整個生果為多，故此單靠飲果汁未必能夠達至所聲稱的效果。

一些聲稱暗示產品可從蔬菜或水果提取最多營養便利人體吸收。不過本會認為，較快速的吸收，不應理解等同為吸收更多營養。研究所訪問的營養師警告，快速吸收食物或果汁中的糖分，可能會引致血糖急速上升，尤其是糖尿病患者需要份外小心。

Electrical Products 電氣產品

Dehumidifiers

Some manufacturers of dehumidifiers were found to have used double sets of testing conditions in an apparent tactic to boost the dehumidifying capacity in their claims. The sets of condition applied by the manufacturers involved non-standard test conditions of relatively high temperature and high humidity in their favour. Among the 12 models of dehumidifiers studied, the claims of daily dehumidifying capacity between the two sets of conditions differed by over 60%, and in some cases, even by more than 100%.

The Council was critical of the manufacturers' approach of using their own set of testing conditions since they might not accurately reflect the indoor environment when the dehumidifier is operating with the windows closed. The Council was also critical of the manufacturers' practice of double claims as these could be confusing to unwary consumers who are making comparisons between products in terms of dehumidifying capacity.

Electric Heaters

Safety test were conducted on 15 models of electric heaters, with prices ranging from HK\$99-\$1,498. The models comprised ceramic heaters, fan heaters, far-infrared heaters, oil-filled heaters and wall mount heaters. Of the 15 models studied, only four were found to be in full compliance with the requirements under international safety standards.

抽濕機

研究發現有一些抽濕機製造商採用雙重測試環境為產品進行測試，估計其手法為誇大產品聲稱的抽濕量。其中採用的環境屬較高溫及潮濕，這對廠商有利，惟並非標準測試環境。12款測試的抽濕機中，部分產品在兩種測試環境下的聲稱每日抽濕量相差可超過六成，一些更相差一倍或以上。

本會認為，廠商採用自設的測試環境不能準確反映實際使用抽濕機時關上窗戶的室內環境，而廠商採用雙重聲稱的做法，令消費者在比較抽濕量時產生混淆。

電暖爐

本會測試了15款電暖爐的安全程度，售價由港幣99元至1,498元。測試樣本包括陶瓷暖風機、傳統暖風機、遠紅外線電暖爐、充油式暖爐及可掛牆暖爐。15款測試的型號中，只有四款完全符合國際安全標準的要求。

The remaining 11 models were found to fall short of the international safety standards in terms of protection against electrical shock and insulation, temperature increase, abnormal operation, resistance of materials to heat and flame, electric wiring and earthing, electrical connection, marking and instructions and/or the labelled rated power input.

And in two of these models, it was found that some parts became overheated under abnormal operating conditions, therefore posing a potential fire risk. Following action by the Electrical and Mechanical Services Department (EMSD), the two models concerned were recalled by their suppliers voluntarily.

Electric Hot Water Pots

Tests were conducted on 12 electric hot water pots with respect to safety, performance, odour and taste. All 12 models passed the relevant safety tests, although seven failed to meet the required standard concerning markings and instructions.

Seven models were found to have a lower capacity than the values claimed. One was found to have a measured capacity less than it claimed by 15%. As regards to the boiling performance, the average time taken to boil a litre of water ranged from 8.23-9.68 minutes.

One model, though, was found to give the distilled water an unpleasant odour and taste after the boiled water was kept in the pot for seven days. The unpleasant odour and taste may have resulted from the silicone rubber connection tube contained inside the pot.

其餘11款樣本在防觸電保護及絕緣、升溫、非正常操作、物料耐熱及阻燃性、電線裝置及接地、電氣連接、標示說明及/或輸入功率等方面，達不到國際安全標準。

而其中兩款於非正常操作測試時被發現部分零件出現過熱情況，可能構成潛在火災風險。經機電工程署跟進後，該兩款樣本的供應商已自願從市面上回收產品。

電熱水瓶

本會對12款電熱水瓶在安全、效能、氣味及味道等方面進行測試。所有型號都通過安全測試，惟七款型號在標示及說明方面未達致標準要求。

在效能測試方面，七款型號量得的實際容量低於標示。其中一個型號量得的實際容量比其聲稱的低15%。在加熱至沸點的表現方面，各型號平均每公升水所需的煮沸時間由8.23至9.68分鐘。

蒸餾水經電熱水瓶煮沸並保留在瓶內一星期，測試發現一款型號內的蒸餾水有異常氣味及味道，相信這是來自瓶內硅橡膠的接駁喉管。

Cosmetics and Personal Care 美容儀器及個人護理產品

RF Facial Devices for Domestic Use

While professional radiofrequency (RF) application has been proven to be effective in improving early signs of ageing with mild-to-moderate wrinkles and skin laxity, the Council reminded consumers that home-use RF facial devices might not produce the same effect due to their lower energy output.

Consumers contemplating the purchase of such devices were advised to be aware of these limitations, notably that they may not benefit people with sagging problems, pigmentation, brown spots and obvious blood vessels. Also, structural problems such as strong muscles under the eye areas and broad jaw bones could not be alleviated with the use of RF devices.

家用射頻美容機

雖然專業的射頻處理被證實有助改善輕微至中等程度的皺紋和皮膚鬆弛等初期老化問題，但本會提醒消費者，家用射頻儀器由於輸出能量較低，未必能達至相同效果。

報告建議有意購買該類產品的消費者應瞭解箇中局限，未必能解決皮膚鬆弛、色素、色斑和血管明顯等問題；結構性問題例如眼肚位置肌肉發達和腮骨闊大等都無法用射頻儀器改善。

Consumers who had been implanted with pacemakers or with metal implants (e.g. gold threads), or who had received permanent dermal injections (e.g. liquid silicone) or recent dermal injections (e.g. hyaluronic acid), or were suffering from open wounds or rosacea were advised not to use RF facial devices.

LED Facial Devices

Light-Emitting Diode (LED) facial devices were available in four colour light settings (blue, red, yellow and green), with each device claiming its own level of effectiveness. However, the Council warned consumers that the effectiveness of such devices was at best minimal.

The blue light treatment had proven effective when used professionally while assist in reducing acne outbreaks. However, dermatologists interviewed by the Council pointed out that blue light was not suitable for all patients, and that it would not be effective in the treatment of severe inflammatory acne.

Although it was unlikely to have serious side effects, potential users were also advised that these treatments were not suitable for patients with epilepsy and photophobic diseases or for patients taking medicine such as antihistamines, tetracyclines and sulfonamides. Acne patients taking isotretinoin were advised to consult a physician prior to any light treatment.

Electronic Blood Pressure Monitors

The Council tested 27 models of home-use electronic blood pressure monitors comprising upper arm type and the wrist varieties. A total of 1,002 patients, 540 men and 462 women aged between 30-94, took part in the study.

The readings taken from the samples were compared against those of a mercury sphygmomanometer, a device generally considered accurate by medical professionals, with reference to the protocol of the European Society of Hypertension. The results obtained from the analyses showed, that in general, the upper arm models were judged to perform better in terms of accuracy.

消費者如曾在體內植入心臟起搏器、金屬物質(例如金屬線);曾接受永久性填充物注射(例如液態矽)或最近曾接受填充物注射(例如透明質酸);皮膚有傷口及患有玫瑰痤瘡等,都不建議使用射頻美容機。

家用LED光學美容機

LED光學美容機有藍、紅、黃及綠四種色光,每種色光,聲稱各有不同功效。不過,本會提醒消費者,這類家用的美容機功效最多只屬輕微。

其中以專業使用的LED藍光被證實能有助改善暗瘡情況。但本會訪問的皮膚科醫生指出,LED藍光並非人人適用,而且對嚴重的暗瘡問題幫助不大。

儘管家用LED光學美容機可能引起嚴重副作用的機會不大,但本會報告提醒消費者須留意,癩癩症和畏光症患者、正服用抗組織胺、四環素及磺胺類藥物的人士,不宜使用這類光學美容儀器。暗瘡患者如正服用治療暗瘡藥物異維A酸,使用光學美容儀器前宜先諮詢醫護人員意見。

家用電子血壓計

本會測試了27款家用電子血壓計,包括上臂式及手腕式血壓計。有1,002位病人參與這項測試,包括540名男性及462名女性,年齡介乎30至94歲。

測試參照歐洲高血壓學會測試方案,以家用電子血壓計樣本替病人量得的血壓數據,並與專業醫護人士認同較準確的水銀柱血壓計作比較。分析結果顯示,一般較手腕式樣本準確。



Publicity and Community Relations Committee Chairman Professor Michael HUI demonstrated how the test on the accuracy of home-use electronic blood pressure monitors was conducted.

消委會宣傳及社區關係小組主席許敬文教授示範如何測試家用電子血壓計的準確度。

Phthalates in Children's Products

The Council tested 27 models of plastic and wooden toys and children products and found that four models contained high levels of phthalates – a toxic plasticiser - ranging in maximum content from 28.6%-37.9%, which is equivalent to 286 and 379 times the US and European Union limit of 0.1%.

Animal studies have indicated chronic exposure to phthalates have the potential to damage the liver and the kidney as well as the reproductive system. The health risks posed by the chemical to young children were of particular concern and led the Legislative Council to consider amending the Toys and Children's Products Safety Ordinance to introduce controls concerning the use of phthalates in toys and certain children's products.

The study also examined the mechanical and physical structure of the products in respect of their small parts and unusual shapes and sizes of parts that may pose a choking and suffocation hazard to young children. Six models failed the test assessing such physical hazards as small parts or unusual shapes and sizes, while nine samples did not comply with the safety requirement and small parts was detected after a tension test.

Carcinogens in Children's Plastic Footwear

Phthalates and Polycyclic Aromatic Hydrocarbons (PAHs) in high quantities were detected in children's plastic footwear during the Council's test on 28 models of casual footwear, slippers and rain boots.

The amount of a particular phthalate detected in 12 models ranged from 15.2%-43.3%. These substances could be indirectly ingested by children who put their hands in their mouths or through food after touching the footwear. It was also found that the use of sun lotion or oil-based moisturisers would also increase the amount of migrated phthalates in contact with the skin.

兒童玩具檢出塑化劑

本會測試了27款塑膠和木製玩具及兒童產品，結果顯示，其中四款樣本檢測出極高含量的塑化劑，最高含量由28.6%至37.9%，相等於美國和歐盟標準上限(0.1%)的286和379倍。

動物試驗顯示，長期接觸塑化劑可能造成肝臟和腎臟，以及生殖系統上的損害。對嬰幼兒可能造成的健康風險尤其惹關注。立法會已考慮修訂《玩具及兒童產品安全條例》，擴闊條例以規管玩具和某些兒童產品中的塑化劑含量。

此外，測試還檢驗了樣本的機械及物理結構，確定有否存在任何能對嬰幼兒構成哽噎或窒息風險之特定形狀及尺寸的小部件。有六款樣本未能通過細小部件或特定形狀及尺寸的測試。九款樣本經過拉力測試後發現有小部件，亦未能符合安全要求。

兒童塑膠鞋含致癌物質

本會檢測了28款兒童膠鞋，包括輕便鞋、家居拖鞋和雨靴，多款檢出高含量塑化劑和多環芳香族碳氫化合物(簡稱PAHs)。

12款樣本的單一塑化劑的最高含量達到15.2%至43.3%。兒童可能雙手接觸鞋履，繼而觸及口部或食物，而因此間接攝入塑化劑。另外，使用防曬劑或油性護膚品，有機會增加皮膚接觸到的塑料物品釋出塑化劑。

Co-opted member Professor Ron HUI and Chief Executive Ms. Gilly WONG unveiled findings about high quantities of PAHs detected in some children's plastic footwear.

增選委員許樹源教授和總幹事黃鳳嫻女士公布兒童塑膠鞋測試報告，發現部分樣本有高含量多環芳香族碳氫化合物(PAHs)。



Of the four models detected with high amounts of PAHs, three were also found to contain benzo[a]pyrene (BaP), a carcinogenic PAH, ranging from 1.1 ppm-3.1 ppm. PAHs are generally easily absorbed through skin contact, and may cause irritation and even skin cancer following long-term exposure. Consumers were advised that wearing socks may help minimise the risk of skin contact with the phthalates and PAHs contained in plastic footwear.

International Comparative Tests

During 2013-14, the Consumer Council joined forces with consumer associations overseas and stepped up the collaboration with the ICRT to conduct international comparative tests involving:

- Audio-visual and optical products including camcorders, compact cameras, interchangeable lens cameras and AV receivers
- Computer and telecommunication products including internet security software, mobile phone handsets, printers and tablet computers
- Automobiles, road vehicles and related products including child car seats
- Household, personal and travel products including mattresses and razors
- Household appliances including espresso coffee makers and food processors

Of the tests conducted, reports concerning child car seats and mattresses were the most popular topics amongst CHOICE magazine readers. The test results concerning cameras, meanwhile, were viewed by a significant number of users of the ShoppSmart website dedicated to visitors from Mainland China.

International comparative tests not only helped save resources, but many of the tests offered useful and practical purchase advice to consumers, in particular concerning more expensive products.

Surveillance of Unsafe Products in Market

The Council paid special attention to the sale of local and imported products and would report to authorities for follow-up which might include requesting suppliers recall any such products as appropriate if they were deemed to be unsafe.

Through communication with other consumer organisations and foreign authorities, the Council also kept monitoring information globally in order to issue timely alerts to the public concerning unsafe products that could be imported into Hong Kong.

測試發現在4款檢出PAHs總含量較高的樣本中，有3款檢出可致癌的苯并[a]芘 (BaP) (一種PAH)，含量由1.1 ppm至3.1 ppm。PAHs較易經皮膚接觸而攝入，可能會刺激皮膚，長時間接觸更有機會引致皮膚癌。要減低兒童透過皮膚接觸到膠鞋的塑化劑和PAHs，可為他們穿上襪子。

國際合作產品測試

在2013-14年度，本會聯同海外的消費者組織，加強與ICRT的合作，進行國際性比較測試，有關產品包括：

- 影音及光學產品—攝錄機、輕便相機、可換鏡頭相機、影音接收器
- 電腦及通訊產品—上網保安軟件、手提電話、打印機、平板電腦
- 汽車、道路車輛及相關產品—兒童汽車座椅
- 家居、個人及旅行產品—床褥、鬚刨
- 家居設備—特濃咖啡機、食物處理器

其中兒童汽車座椅及床褥的測試報告，深受《選擇》月刊讀者的歡迎，而相機測試報告則是專為內地旅客而設的「精明消費香港遊」網站的熱門瀏覽報告。

國際性的比較測試，不單有助減省資源，有不少測試還提供實用的購買建議予消費者，特別是較昂貴的產品。

監察市面的危險產品

本會密切留意是否有本地及入口的危險產品在市場出售，倘若發現市場上有危險產品，本會隨即通知監管部門以便跟進，包括要求有關供應商進行回收。

本會透過與外地消費者機構及監管部門的聯繫，監察全球各地有關危險產品的資訊，及時向公眾發出產品警示，提防可能由外地流入的危險產品。