

本地麵包的鈉、總脂肪及 反式脂肪含量

Sodium, Total Fat and Trans Fat Contents in Local Bread

業界諮詢論壇

Trade Consultation Forum

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背景

Background



鈉對健康的影響

Health effects of sodium

- 鈉是維持人體機能正常運作的必需元素。
- Sodium is essential for body functions.
- 進食過多鈉可能會增加患上高血壓的風險。
- Excessive sodium intake may increase the risk of developing high blood pressure.
- 高血壓若不及早診治，可引致心臟病、中風和腎衰竭等疾病。
- Untreated high blood pressure can lead to heart attack, stroke, kidney failure, etc.



脂肪及反式脂肪對健康的影響

Health effects of fat and trans fat

- 脂肪是高能量的來源，每克脂肪可提供 9 千卡能量。
- Fat is a concentrated energy source, which provides 9 kcal for each gram of fat.
- 攝取過量脂肪會增加患上多種疾病(如心臟病、肥胖症、高血壓、糖尿病及某些癌症)的風險
- Excess fat intake has been linked to major health problems, including an increased risk of heart disease, obesity, hypertension, diabetes and certain types of cancers.
- 攝取過量反式脂肪則會增加罹患冠心病的風險。
- Excess trans fat intake has been linked to increase risk of coronary heart disease.



世衛鈉攝取量建議

WHO's sodium intake recommendation

➤ 鈉

- 一般成年人每日的鈉攝取量應少於2,000毫克 (5克鹽，即略少於一平茶匙食鹽)



➤ Sodium

- The daily intake of sodium of an average adult should be less than 2,000 mg (5 g of salt, slightly less than 1 level teaspoon of salt)



世衛脂肪及反式脂肪攝取量建議

WHO's fat and trans fat intake recommendation

➤ 脂肪

- 攝取量應少於人體每日所需能量的 30%，以每天攝取2,000千卡能量計算，每日應攝取少於66克。

➤ 反式脂肪

- 攝取量應少於人體每日所需能量的 1%，以每天攝取2,000千卡能量計算，每日應攝取少於2.2克。

➤ Fat

- Daily intake should be less than 30% of daily energy intake. For a 2,000 kcal diet, one should have less than 66g of total fat daily.

➤ Trans Fat

- Daily intake should be less than 1% of daily energy intake. For a 2,000 kcal diet, one should have less than 2.2g of trans fat daily.



本港的情況

Local situation

- 衛生署發布之二零一四至二零一五年度人口健康調查報告書發現 15-84歲本地人士平均每日攝取8.8克鹽（約3,520毫克鈉），每日鹽攝取量超出世衛建議的人口比例有86.3%。

- The Report of Population Health Survey 2014/2015 published by the Department of Health revealed that persons aged 15-84 had a daily salt intake of 8.8g per day (~3,520 mg sodium). The vast majority (86.3%) of them had dietary salt intake above the WHO recommended daily limit.



本地的減鹽行動

Local actions on salt reduction

- 政府十分重視有關減低香港市民的鹽和糖攝取量的工作，並與「降低食物中鹽和糖委員會」緊密工作，提出切合本港情況的減鹽減糖措施。
- 委員會認為改良食品配方須循序漸進地逐步減少食物中的鈉（鹽）含量。
- The Government attaches importance to the work of reducing salt and sugar intake by the local population, and works closely with the Committee on Reduction of Salt and Sugar in Food to formulate salt and sugar reduction measures suitable for Hong Kong.
- The Committee considered product reformulation should gradually reduce the amount of sodium (salt) in food.



是次研究

The Study



麵包

Bread

- 麵包是本港市民每日飲食其中一個主要類別。
- 食物安全中心的研究指出麵包是本地成年人從食物攝取鈉的第四大來源。
- 食物安全中心的第一次食物消費量調查(2005至2007年)
 - 成人每日平均進食約43克麵包
- Bread is one of the major food in local daily diet.
- According to the CFS, bread was found to be the fourth major contributors to the total dietary sodium intake of the adult population in Hong Kong.
- The First Hong Kong Population-based Food Consumption Survey (2005-2007) from the CFS
 - Average consumption of bread of an adult is about 43g



麵包的主要原材料

Major ingredients of bread



麵粉
Flour



牛油
Butter



蛋
Egg



奶
Milk



鹽
Salt



糖
Sugar



目的 Objectives

- 了解麵包的鈉、總脂肪及反式脂肪含量。
- 促進消費者對麵包的鈉、總脂肪及反式脂肪含量的認識，從而幫助他們作出適合個人情況的選擇。
- 推動食物業界採取行動減低麵包的鈉、總脂肪及反式脂肪含量。
- To investigate the levels of sodium, total fat and trans fat in bread.
- To inform the public on the sodium, total fat and trans fat contents in bread to enable informed choices.
- To urge the food trade to take action to reduce the sodium, total fat and trans fat contents of bread in the market.



研究範疇 Scope of Study (1)

- 8種非預先包裝麵包樣本及2種獲豁免標示營養標籤的預先包裝麵包樣本

- 8 types of non-prepackaged bread and 2 types of prepackaged bread exempted from nutrition labelling



研究範疇 Scope of Study (2)

- 2種附有營養標籤的預先包裝麵包樣本
- 2 types of prepackaged bread with nutrition label



方法

Method



採樣 Sampling

➤ 抽取及化驗樣本時間

- 2018年2月至7月

➤ 地點

- 非預先包裝麵包樣本及獲豁免標示營養標籤的預先包裝麵包樣本

- ▣ 麵包店、茶餐廳、超級市場及便利店

- 附有營養標籤的預先包裝麵包樣本

- ▣ 麵包店、超級市場及便利店

➤ Sampling and testing period

- Feb - July 2018

➤ Location

- Non-prepackaged bread and prepackaged bread exempted from nutrition labelling

- ▣ Bakery shops, Hong Kong style tea restaurants, supermarkets and convenience stores

- Prepackaged bread with nutrition label

- ▣ Bakery shops, supermarkets and convenience stores



	產品類別 Product category	樣本數目 (非預先包裝及獲豁免標示營養標籤的預先包裝麵包樣本) No. of samples (Non-prepackaged and prepackaged exempted from NL)	樣本數目 (附有營養標籤的預先包裝麵包樣本) No. of samples (Prepackaged with NL)
1	白方包(有皮) White bread	10*	5
2	麥方包(有皮) Wholemeal bread	10*	5
3	牛角酥 Croissant	10	-
4	提子麥包 Wheat bread with raisin	10	-
5	甜餐包 Sweet plain roll / bun	10	-
6	芝麻包 Sesame roll / bun	10	-
7	菠蘿包 "Pineapple" bun	10	-
8	雞尾包 Cocktail bun	10	-
9	吞拿魚包 Tuna fish bun	10	-
10	腸仔包 Sausage bun	10	-
	整體 Overall	100	10

*獲豁免標示營養標籤的預先包裝樣本 Prepackaged samples exempted from NL



測試項目 Test Items

- 測試由食物安全中心食物研究化驗所進行
- 非預先包裝麵包及獲豁免標示營養標籤的預先包裝麵包樣本
 - 檢測樣本中的鈉、總脂肪及反式脂肪含量
 - 檢測腸仔包混合樣本中麵包部分及腸仔部分的鈉含量
- 附有營養標籤的預先包裝麵包樣本
 - 檢視了這些樣本的營養標籤
- Testing conducted by Food Research Laboratory of the Centre for Food Safety
- Non-prepackaged bread and prepackaged bread exempted from nutrition labelling
 - Tested for sodium, total fat and trans fat contents
 - Tested for sodium contents of bread portion and sausage portion of the composite sausage bun samples
- Prepackaged bread with nutrition label
 - Referred to the nutrition label



結果分析 Data analysis (1)

營養素 Nutrients	低含量水平 Low level	高含量水平 High level
鈉 Sodium	每100克不超過120毫克* ≤120mg per 100g*	每100克超過600毫克# >600mg per 100g#
總脂肪 Total Fat	每100克不超過3克* ≤3g per 100g*	每100克超過20克# >20g per 100g #

*根據本地現行的營養標籤規例

The existing Nutrition Labelling Regulation in HK

#根據中心為方便市民有效地使用營養標籤而編印的 “購物指南卡 ”

According to the “Shopping card” published by CFS which aims at facilitating consumers in making good use of nutrition labels



結果分析 Data analysis (2)

➤ 鈉、總脂肪及反式脂肪攝入量分析

- 把攝入營養素的分量與世衛建議的攝取限量比較。

- ▣ 鈉-每日應少於2,000毫克

- ▣ 脂肪-每日應少於66克

- ▣ 反式脂肪-每日應少於2.2克

➤ Analysis of sodium, total fat and trans fat intake

- The amount of nutrient intake is compared with the WHO's recommendation.

- ▣ Sodium – less than 2,000mg daily

- ▣ Fat - less than 66g daily

- ▣ Trans Fat – less than 2.2g daily



結果分析 Data analysis (3)

- 麵包鈉含量與外國自願減鈉目標比較
- 麵包反式脂肪含量與過往研究比較
- The sodium contents of bread were compared with overseas voluntary sodium reduction targets.
- The trans fat contents of bread were compared with those obtained from previous studies.



結果

Findings



麵包的鈉含量

Sodium content in bread



非預先包裝麵包樣本檢出的鈉含量

Sodium content in non-prepackaged bread samples

產品類別 Product category	非預先包裝麵包樣本數目 Total no. of non-prepackaged samples	每100克鈉含量平均值[範圍](毫克) Mean sodium level [range] (mg/100 g)
芝麻包 Sesame roll / bun	10	480 [350-630]
腸仔包 Sausage bun	10	420 [220-640]
白方包* White bread*	10	420 [310-500]
麥方包 * Wholemeal bread*	10	400 [280-500]
牛角酥 Croissant	10	400 [230-490]
吞拿魚包 Tuna fish bun	10	270 [180-420]
雞尾包 Cocktail bun	10	230 [110-360]
菠蘿包 “Pineapple” bun	10	140 [29-330]
提子麥包 Wheat bread with raisin	10	140 [21-330]
甜餐包 Sweet plain roll / bun	10	110 [21-260]
整體 Overall	100	300 [21-640]

*獲豁免標示營養標籤的預先包裝樣本 Prepackaged samples exempted from NL

非預先包裝麵包樣本檢出的鈉含量

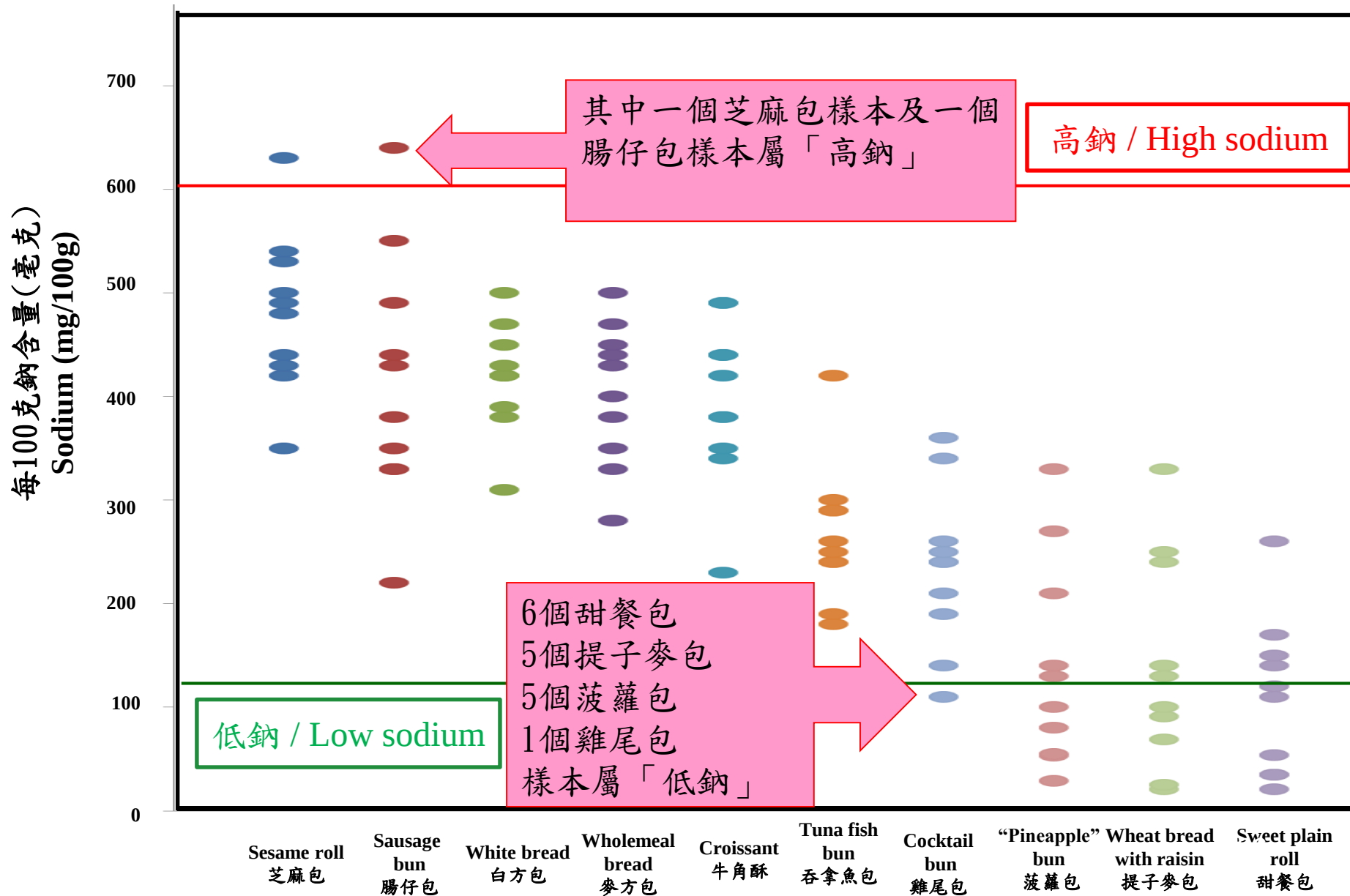
Sodium content in non-prepackaged bread samples

產品類別 Product category	非預先包裝麵包樣本數目 Total no. of non-prepackaged samples	每100克鈉含量平均值[範圍](毫克) Mean sodium level [range] (mg/100 g)
芝麻包 Sesame roll / bun	鈉含量: 最高為最低的一至兩倍 Sodium content: Highest is 1 to 2 folds of lowest	480 [350-630]
腸仔包 Sausage bun		420 [220-640]
白方包* White bread*	10	420 [310-500]
麥方包 * Wholemeal bread*	10	400 [280-500]
牛角酥 Croissant	10	400 [230-490]
吞拿魚包 Tuna fish bun	10	270 [180-420]
雞尾包 Cocktail bun	10	230 [110-360]
菠蘿包 "Pineapple" bun	鈉含量: 最高為最低的一至兩倍 Sodium content: Highest is 1 to 2 folds of lowest	140 [29-330]
提子麥包 Wheat bread with raisin	鈉含量: 最高為最低的一至兩倍 Sodium content: Highest is 1 to 2 folds of lowest	140 [21-330]
甜餐包 Sweet plain roll / bun	10	110 [21-260]
整體 Overall	100	300 [21-640]

*獲豁免標示營養標籤的預先包裝樣本 Prepackaged samples exempted from NL

非預先包裝及獲豁免標示營養標籤的預先包裝麵包的鈉含量分佈圖

Distribution chart of sodium content of non-prepackaged bread and prepackaged bread exempted from NL



10種麵包平均整個鈉含量佔世衛建議每日攝取限量

Sodium contribution of 10 types of bread to WHO's recommended limit of daily intake

產品類別 Product category	平均整個鈉含量(毫克) [範圍] Mean sodium content per sample [range] (mg/sample)	整個麵包鈉含量佔每日攝取限量的比重 平均值 (%) [範圍] Mean sodium contribution per sample to WHO's recommended limit of daily intake (%) [range]
腸仔包 Sausage bun	400 [190-540]	20 [9.5-27]
芝麻包 Sesame roll / bun	300 [200-400]	15 [10-20]
吞拿魚包 Tuna fish bun	280 [180-390]	14 [9.0-20]
牛角酥 Croissant	250 [140-300]	13 [7.0-15]
雞尾包 Cocktail bun	240 [130-410]	12 [6.5-21]
白方包 White bread	190 [150-230]^	9.5 [7.5-12]^
麥方包 Wholemeal bread	190 [130-220]^	9.5 [6.5-11]^
菠蘿包 "Pineapple" bun	130 [44-310]	6.5 [2.2-16]
提子麥包 Wheat bread with raisin	97 [16-210]	4.9 [0.8-11]
甜餐包 Sweet plain roll / bun	73 [18-170]	3.7 [0.9-8.5]
整體 Overall	210 [16-540]	11 [0.8-27]

^ 以每片計算 calculated per slice

10種麵包平均整個鈉含量佔世衛建議每日攝取限量

Sodium contribution of 10 types of bread to WHO's recommended limit of daily intake

產品類別 Product category	平均整個鈉含量(毫克) [範圍] Mean sodium content per sample [range] (mg/sample)	整個麵包鈉含量佔每日攝取限量的比重 平均值 (%) [範圍] Mean sodium contribution per sample to WHO's recommended limit of daily intake (%) [range]
腸仔包 Sausage bun	進食整個鈉含量最高的樣本，鈉攝取量等於每日攝取限量的27% Consumption of the whole sample with the highest sodium content, sodium intake = 27% of daily sodium intake recommendation	20 [9.5-27]
芝麻包 Sesame roll / bun		15 [10-20]
吞拿魚包 Tuna fish bun		14 [9.0-20]
牛角酥 Croissant	250 [140-300]	13 [7.0-15]
雞尾包 Cocktail bun	240 [130-410]	12 [6.5-21]
白方包 White bread	190 [150-230]^	9.5 [7.5-12]^
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甜餐包 Sweet plain roll / bun	73 [18-170]	3.7 [0.9-8.5]
整體 Overall	210 [16-540]	11 [0.8-27]

^ 以每片計算 calculated per slice

腸仔包的鈉含量

Sodium content of sausage bun samples

➤ 腸仔包的鈉含量

▣ 六成來自麵包

▣ 四成來自腸仔

➤ For the sodium content of sausage bun,

▣ 60% contributed by the bread

▣ 40% contributed by the sausage



麵包的鈉含量與外國的數據比較

Comparison of sodium content with overseas countries

產品類別 Product category	樣本數目* Total no. of samples*	平均鈉含量 [範圍] (毫克 / 每100克) Average sodium content [range] (mg/100 g)	加拿大於2010年的 平均鈉含量 (毫克 / 每100克) Average sodium content in Canada in 2010 (mg/100 g)	美國於2010年的 平均鈉含量 (毫克 / 每100克) Average sodium content in USA in 2010 (mg/100 g)
白方包 White bread	15	430 [310-510]	469	523
麥方包 Wholemeal bread	15	420 [280-500]		471



*包括是次研究的所有樣本 Including all the samples in this study



麵包的鈉含量與外國自願減鈉目標的比較

Comparison of sodium content with overseas voluntary sodium reduction targets

產品類別 Product category	樣本數目 Total no. of samples	外國自願的最高鈉含量目標 [國家] (毫克 / 每100克) Overseas voluntary maximum sodium targets [country] (mg/100 g)	鈉含量高於 外國目標百分比 (%) % of samples above overseas targets
白方包 White bread	15	450 [英國 UK]	33%
麥方包 Wholemeal bread	15	410 [美國 USA]	60%
牛角酥 Croissant	10	230 [美國 USA]	90%
提子麥包 Wheat bread with raisin	10	400 [加拿大 Canada]	0
甜餐包 Sweet plain roll / bun	10	450 [英國 UK]	0
芝麻包 Sesame roll / bun	10	450 [英國 UK]	60%

擬訂減鈉目標水平 (方包為例) (1)

Sodium reduction target setting (Plain bread as an example) (1)

➤ 根據外地訂立減鈉目標的建議

- 分析本研究的30個方包樣本(白方包及麥方包)的鈉含量數據

➤ With reference to overseas recommendations on target setting approaches

- This study analysed the sodium content data of the 30 plain bread samples (i.e. white bread and wholemeal bread)



擬訂減鈉目標水平 (方包為例) (2)

Sodium reduction target setting (Plain bread as an example) (2)

三個可能的方案

1. 訂立「鈉含量上限」

鈉含量分布範圍第50個和第75個百分位數之間

→每100克含430至470毫克鈉

2. 訂立「鈉含量平均值」

根據平均鈉含量(即每100克含420毫克鈉)

→設定一個較其低的減鈉指標

3. 訂立「減鈉百分率」

設定某減鈉百分率(例如百分之十)

3 possible options

1. “Maximum level” approach

A ceiling level is set between the 50th and 75th percentiles of the sodium content distribution

→430 - 470 mg sodium /100g

2. “Average/mean level” approach

Make reference to the average/mean sodium content (i.e. 420mg sodium /100 g)

→Set a lower sodium reduction target

3. “Percentage reduction target” approach

Apply a certain percentage reduction target (e.g. 10%)

麵包的總脂肪含量

Total fat content in bread



非預先包裝麵包樣本檢出的總脂肪含量

Total fat content in non-prepackaged bread samples

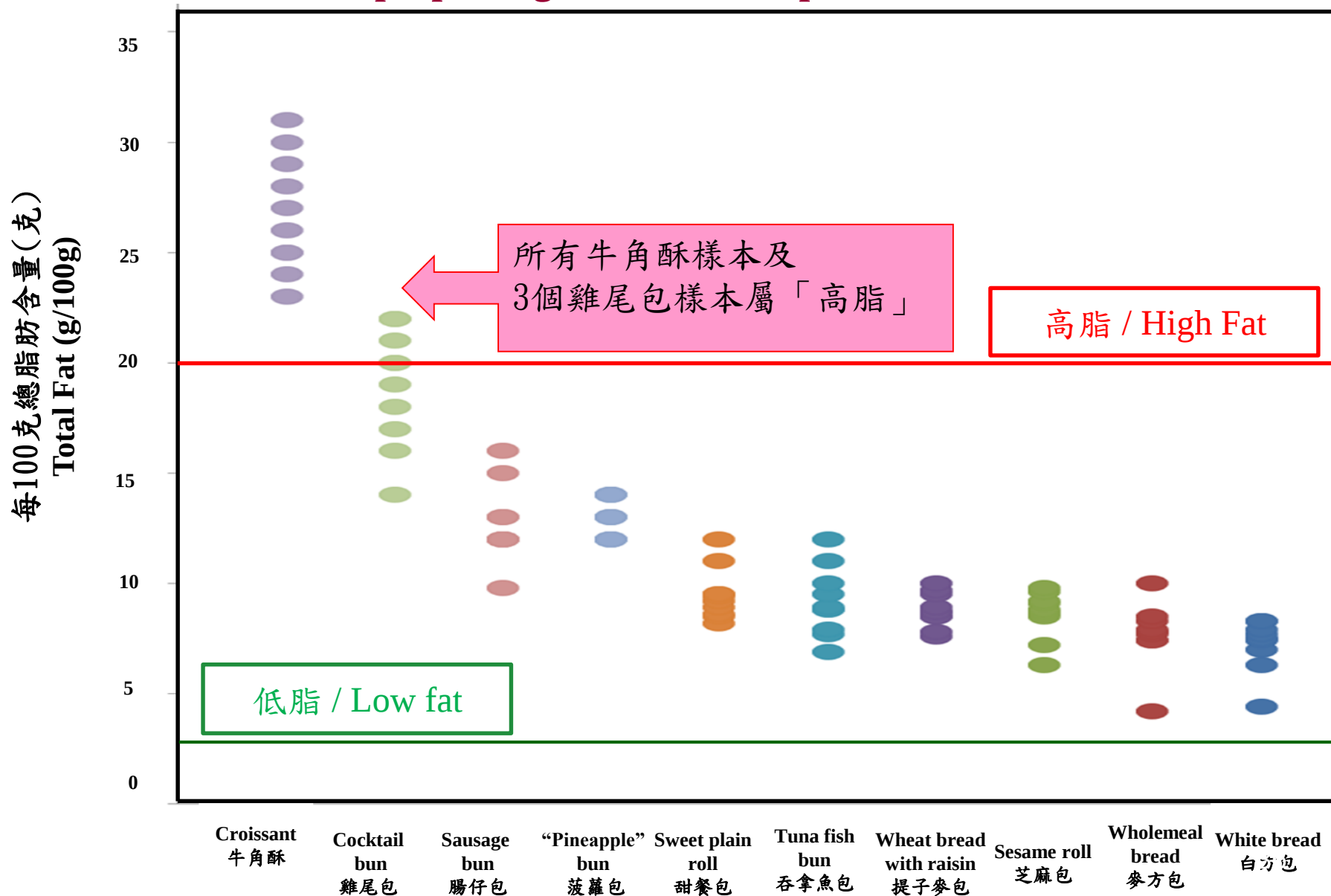
產品類別 Product category	非預先包裝麵包樣本數目 Total no. of non-prepackaged samples	每100克總脂肪含量平均值[範圍](克) Mean total fat level [range] (g/100 g)
牛角酥 Croissant	10	27 [23-31]
雞尾包 Cocktail bun	10	19 [14-22]
腸仔包 Sausage bun	10	13 [9.8-16]
菠蘿包 "Pineapple" bun	10	13 [12-14]
甜餐包 Sweet plain roll / bun	10	9.5 [8.2-12]
吞拿魚包 Tuna fish bun	10	9.2 [6.9-12]
提子麥包 Wheat bread with raisin	10	8.8 [7.6-10]
芝麻包 Sesame roll / bun	10	8.6 [6.3-9.8]
麥方包* Wholemeal bread*	10	7.7 [4.2-10]
白方包* White bread*	10	7.2 [4.4-8.3]
整體 Overall	100	12 [4.2-31]

*獲豁免標示營養標籤的預先包裝樣本 Prepackaged samples exempted from NL



非預先包裝及獲豁免標示營養標籤的預先包裝麵包的總脂肪含量分佈圖

Distribution chart of total fat content of non-prepackaged bread and prepackaged bread exempted from NL



10種麵包平均整個總脂肪含量佔世衛建議每日攝取限量

Total fat contribution of 10 types of bread to WHO's recommended limit of daily intake

產品類別 Product category	平均整個總脂肪含量(克) [範圍] Mean total fat content per sample [range] (g/sample)	整個麵包總脂肪含量佔每日攝取限量的比重 平均值 (%) [範圍] Mean total fat contribution per sample to WHO's recommended limit of daily intake (%) [range]
雞尾包 Cocktail bun	19 [15-26]	29 [23-39]
牛角酥 Croissant	17 [15-22]	26 [23-33]
菠蘿包 "Pineapple" bun	12 [7.9-18]	18 [12-27]
腸仔包 Sausage bun	12 [11-14]	18 [17-21]
吞拿魚包 Tuna fish bun	9.6 [6.8-14]	15 [10-21]
甜餐包 Sweet plain roll / bun	6.3 [5.0-8.6]	10 [7.6-13]
提子麥包 Wheat bread with raisin	6.3 [5.3-7.8]	10 [8.0-12]
芝麻包 Sesame roll / bun	5.4 [4.6-6.1]	8.2 [7.0-9.2]
麥方包 Wholemeal bread	3.5 [2.0-4.1]^	5.3 [3.0-6.2]^
白方包 White bread	3.2 [2.1-3.7]^	4.8 [3.2-5.6]^
整體 Overall	9.5 [2.0-26]	14 [3.0-39]

^ 以每片計算 calculated per slice

10種麵包平均整個總脂肪含量佔世衛建議每日攝取限量

Total fat contribution of 10 types of bread to WHO's recommended limit of daily intake

產品類別 Product category	平均整個總脂肪含量(克) [範圍] Mean total fat content per sample [range] (g/sample)	整個麵包總脂肪含量佔每日攝取限量的比重 平均值 (%) [範圍] Mean total fat contribution per sample to WHO's recommended limit of daily intake (%) [range]
雞尾包 Cocktail bun	進食整個總脂肪含量最高的樣本，總脂肪攝取量等於每日攝取限量的39% Consumption of the whole sample with the highest total fat content, total fat intake = 39% of daily total fat intake recommendation	29 [23-39]
牛角酥 Croissant		26 [23-33]
菠蘿包 "Pineapple" bun		18 [12-27]
腸仔包 Sausage bun	12 [11-14]	18 [17-21]
吞拿魚包 Tuna fish bun	10 [6.8-14]	15 [10-21]
甜餐包 Sweet plain roll / bun	6.3 [5.0-8.6]	10 [7.6-13]
提子麥包 Wheat bread with raisin	6.3 [5.3-7.8]	10 [8.0-12]
芝麻包 Sesame roll / bun	5.4 [4.6-6.1]	8.2 [7.0-9.2]
麥方包 Wholemeal bread	3.5 [2.0-4.1]^	5.3 [3.0-6.2]^
白方包 White bread	3.2 [2.1-3.7]^	4.8 [3.2-5.6]^
整體 Overall	9.5 [2.0-26]	14 [3.0-39]

^ 以每片計算 calculated per slice

麵包的反式脂肪含量

Trans fat content in bread



非預先包裝麵包樣本檢出的反式脂肪含量

Trans fat content in non-prepackaged bread samples

產品類別 Product category	非預先包裝麵包樣本數目 Total no. of non-prepackaged samples	每100克反式脂肪含量平均值[範圍](克) Mean trans fat level [range] (g/100 g)
牛角酥 Croissant	10	0.70 [0.26-1.1]
雞尾包 Cocktail bun	10	0.41 [0.26-0.62]
菠蘿包 "Pineapple" bun	10	0.072 [0.031-0.13]
吞拿魚包 Tuna fish bun	10	0.067 [0.032-0.14]
提子麥包 Wheat bread with raisin	10	0.061 [0.012-0.22]
甜餐包 Sweet plain roll / bun	10	0.056 [0.024-0.23]
芝麻包 Sesame roll / bun	10	0.049 [0.020-0.18]
腸仔包 Sausage bun	10	0.044 [0.028-0.080]
麥方包* Wholemeal bread	10	0.040 [0.012-0.13]
白方包* White bread	10	0.032 [0.015-0.062]
整體 Overall	100	0.15 [0.012-1.1]

*獲豁免標示營養標籤的預先包裝樣本 Prepackaged samples exempted from NL

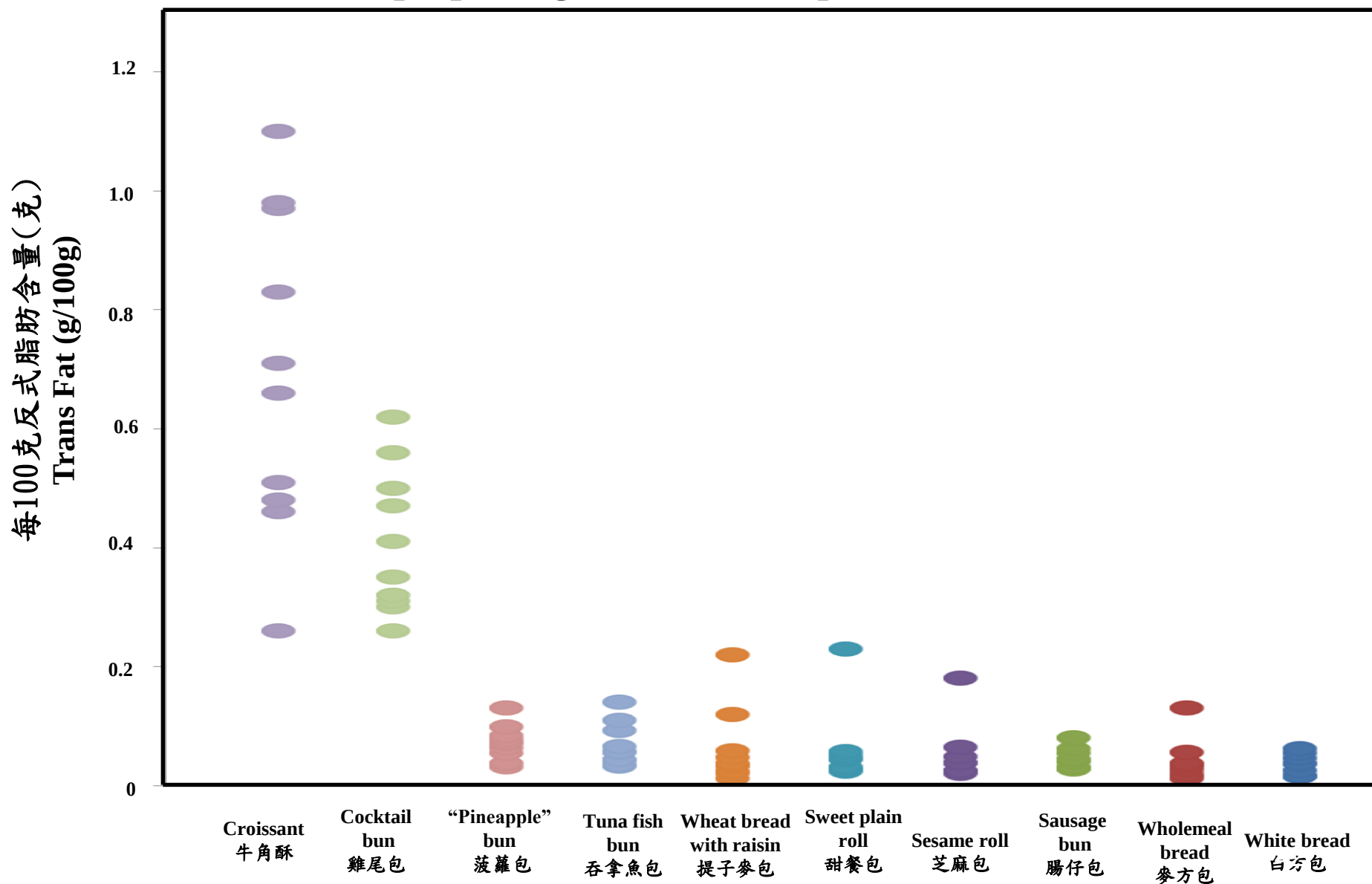
非預先包裝麵包樣本檢出的反式脂肪含量

Trans fat content in non-prepackaged bread samples

產品類別 Product category	非預先包裝麵包樣本數目 Total no. of non-prepackaged samples	每100克反式脂肪含量平均值[範圍](克) Mean trans fat level [range] (g/100 g)
牛角酥 Croissant	反式脂肪含量: 最高為最低的一倍 Trans fat content: Highest is 1 fold of lowest	0.70 [0.26-1.1]
雞尾包 Cocktail bun		0.41 [0.26-0.62]
菠蘿包 "Pineapple" bun	10	0.072 [0.031-0.13]
吞拿魚包 Tuna fish bun	反式脂肪含量: 最高為最低的17倍 Trans fat content: Highest is 17 folds of lowest	0.067 [0.032-0.14]
提子麥包 Wheat bread with raisin		0.061 [0.012-0.22]
甜餐包 Sweet plain roll / bun	10	0.056 [0.024-0.23]
芝麻包 Sesame roll / bun	反式脂肪含量: 最高為最低的1至17倍 Trans fat content: Highest is 1 to 17 folds of lowest	0.049 [0.020-0.18]
腸仔包 Sausage bun		0.044 [0.028-0.080]
麥方包* Wholemeal bread	10	0.040 [0.012-0.13]
白方包* White bread	10	0.032 [0.015-0.062]
整體 Overall	100	0.15 [0.012-1.1]

*獲豁免標示營養標籤的預先包裝樣本 Prepackaged samples exempted from NL

非預先包裝及獲豁免標示營養標籤的預先包裝麵包的反式脂肪含量分佈圖
 Distribution chart of trans fat content of non-prepackaged bread and
 prepackaged bread exempted from NL



10種麵包平均整個反式脂肪含量佔世衛建議每日攝取限量

Trans fat contribution of 10 types of bread to WHO's recommended limit of daily intake

產品類別 Product category	平均整個反式脂肪含量(克) [範圍] Mean trans fat content per sample [range] (g/sample)	整個麵包反式脂肪含量佔每日攝取限量的比重 平均值 (%) [範圍] Mean trans fat contribution per sample to WHO's recommended limit of daily intake (%) [range]
牛角酥 Croissant	0.43 [0.19-0.72]	20 [8.6-33]
雞尾包 Cocktail bun	0.42 [0.23-0.67]	19 [10-30]
菠蘿包 "Pineapple" bun	0.071 [0.029-0.14]	3.2 [1.3-6.4]
吞拿魚包 Tuna fish bun	0.070 [0.025-0.15]	3.2 [1.1-6.8]
提子麥包 Wheat bread with raisin	0.045 [0.009-0.18]	2.0 [0.4-8.2]
腸仔包 Sausage bun	0.042 [0.026-0.067]	1.9 [1.2-3.0]
甜餐包 Sweet plain roll / bun	0.035 [0.015-0.12]	1.6 [0.7-5.5]
芝麻包 Sesame roll / bun	0.029 [0.011-0.10]	1.3 [0.5-4.5]
麥方包 Wholemeal bread	0.019 [0.006-0.064]^	0.9 [0.3-2.9]^
白方包 White bread	0.014 [0.007-0.030]^	0.6 [0.3-1.4]^
整體 Overall	0.12 [0.006-0.72]	5.5 [0.3-33]

^ 以每片計算 calculated per slice

10種麵包平均整個反式脂肪含量佔世衛建議每日攝取限量

Trans fat contribution of 10 types of bread to WHO's recommended limit of daily intake

產品類別 Product category	平均整個反式脂肪含量(克) [範圍] Mean trans fat content per sample [range] (g/sample)	整個麵包反式脂肪含量佔每日攝取限量的比重 平均值 (%) [範圍] Mean trans fat contribution per sample to WHO's recommended limit of daily intake (%) [range]
牛角酥 Croissant	進食整個反式脂肪含量最高的樣本，反式脂肪攝取量 等於每日攝取限量的33% Consumption of the whole sample with the highest trans fat content, trans fat intake = 33% of daily trans fat intake recommendation	20 [8.6-33]
雞尾包 Cocktail bun		19 [10-30]
菠蘿包 "Pineapple" bun		3.2 [1.3-6.4]
吞拿魚包 Tuna fish bun	0.070 [0.025-0.15]	3.2 [1.1-6.8]
提子麥包 Wheat bread with raisin	0.045 [0.009-0.18]	2.0 [0.4-8.2]
腸仔包 Sausage bun	0.042 [0.026-0.067]	1.9 [1.2-3.0]
甜餐包 Sweet plain roll / bun	0.035 [0.015-0.12]	1.6 [0.7-5.5]
芝麻包 Sesame roll / bun	0.029 [0.011-0.10]	1.3 [0.5-4.5]
麥方包 Wholemeal bread	0.019 [0.006-0.064]^	0.9 [0.3-2.9]^
白方包 White bread	0.014 [0.007-0.030]^	0.6 [0.3-1.4]^
整體 Overall	0.12 [0.006-0.72]	5.5 [0.3-33]

^ 以每片計算 calculated per slice

麵包樣本的反式脂肪含量與過往研究的比較

Comparison of trans fat content in bread with previous studies

產品類別 Product category	本研究的每100克 反式脂肪含量(克) Trans fat content in current study (g/100g)	2007年及2012年研究的 每100克反式脂肪含量(克) Trans fat content in studies in 2007 and 2012 (g/100 g)	百分比改變 (%) % change
白方包 White bread	0.032	0.15	-79%
麥方包 Wholemeal bread	0.040	0.29	-86%
牛角酥 Croissant	0.70	0.70	0
菠蘿包 “Pineapple” bun	0.072	0.11	-35%
雞尾包 Cocktail bun	0.41	0.19	+116%
腸仔包 Sausage bun	0.044	0.13	-66%
整體 Overall	0.22	0.26	-15%



從麵包攝取的鈉、總脂肪及反式脂肪

Sodium, total fat and trans fat intake from bread

營養素 Nutrients	每100克平均含量 Average content per 100g	每日進食43克麵包 所攝取的營養素 Nutrient intake from daily consumption of 43g bread	佔世衛建議每日攝取限量的比重 Contribution to WHO's recommended limit of daily intake
鈉 Sodium	300毫克 (mg)	130毫克 (mg)	6.5%
總脂肪 Total Fat	12克 (g)	5.2克 (g)	7.8%
反式脂肪 Trans Fat	0.15g (克)	0.065克 (g)	2.9%



附有營養標籤的預先包裝麵包樣本的鈉、總脂肪及反式脂肪含量

Sodium, total fat and trans fat contents of prepackaged bread with nutrition label

產品類別 Product category	樣本數目 Total no. of samples	每100克的 鈉含量平均值 [範圍] (毫克) Mean sodium content [range] (mg/100g)	每100克的 總脂肪含量平均值 [範圍] (克) Mean total fat content [range] (g/100g)	每100克的 反式脂肪含量平均值 (克) Mean trans fat content (g/100g)
白方包 White bread	5	443 [354-508]	4.4 [2.2-8.0]	所有樣本均標示為 每100克0克 (每100克不多於0.3克) All labeled as 0g/100g (≤0.3g/100g)
麥方包 Wholemeal bread	5	446 [410-468]	5.0 [3.5-7.0]	
整體 Overall	10	445 [354-508]	4.7 [2.2-8.0]	-



附有營養標籤的預先包裝麵包樣本的鈉、總脂肪及反式脂肪含量

Sodium, total fat and trans fat contents of prepackaged bread with nutrition label

產品類別 Product category	樣本數目 Total no. of samples	每100克的 鈉含量平均值 [範圍] (毫克) Mean sodium content [range] (mg/100g)	每100克的 總脂肪含量平均值 [範圍] (克) Mean total fat content [range] (g/100g)	每100克的 反式脂肪含量平均值 (克) Mean trans fat content (g/100g)
白方包 White bread	5	443 [354-508]	4.4 [2.2-8.0]	所有樣本均標示為 每100克0克 (每100克不多於0.3克) All labeled as 0g/100g (≤0.3g/100g)
麥方包 Wholemeal bread	5	446 [410-468]	5.0 [3.5-9.0]	
整體 Overall	10	445 [354-508]	4.7 [2.2-8.0]	-

1個白方包樣本屬「低脂」
(每100克不多於3.0克)
1 white bread sample is considered as
"Low Fat" (≤3.0g/100g)

結果1:

- 個別同種類麵包樣本的鈉及反式肪含量差異很大。

這表示業界減低這些麵包的鈉及反式脂肪含量是切實可行的。

Finding 1:

- Large variations in the sodium and trans fat contents within the same type of certain bread.

This reflects the possibility of the Trade to reduce the sodium and trans fat contents in these bread.



結果2:

- 部分麵包種類的樣本的鈉含量符合「低鈉」的標準。

業界應考慮增加供應低鈉配方的麵包。

Finding 2:

- Sodium contents of certain types of bread sample reach “low sodium” level.

The trade should consider increasing the supply of low sodium version of these bread.



結果3:

- 部分麵包種類的鈉、總脂肪及反式脂肪含量較其他麵包種類為高。

消費者選擇麵包時，應注意麵包的鈉、總脂肪及反式脂肪含量。

Finding 3:

- Sodium, total fat and trans fat contents of certain types of bread are higher than that of the others.

Consumers should take note of the sodium, total fat and trans fat contents of bread.



給消費者的建議 Advice to Consumers

- 保持均衡和多元化的飲食，減少進食鈉、脂肪和反式脂肪含量高及含有高鈉配料（例如香腸、餐肉、火腿）的麵包。
- 留意麵包的鈉、脂肪及反式脂肪含量。可參考本研究結果及中心的營養資料查詢系統，選擇合適的麵包以配合個人需要。
- 購買預先包裝麵包時，應參閱營養標籤，查看鈉、脂肪及反式脂肪含量。
- Maintain a balanced and varied diet. Reduce the consumption of bread high in sodium, fat and trans fat and those bread items contain ingredients with high sodium content (e.g. sausage, luncheon meat, ham).
- Take note of the sodium, fat and trans fat contents of bread. Choose the appropriate types of product to suit one's need by making reference to the result of this study and the Nutrition Information Inquiry System (NIIS) from the CFS.
- Read the nutrition label and note the sodium, fat and trans fat contents when buying prepackaged bread.

給業界的建議 Advice to Trade (1)

- 業界應留意所供應的麵包的鈉、總脂肪及反式脂肪含量，會對公眾健康構成影響。
- Be aware of the sodium, fat and trans fat contents of the bread on sale as it has public health implications.
- 業界應參考中心的《降低食物中鈉含量的業界指引》、《降低食物中糖和脂肪含量的業界指引》及《減少食物中的反式脂肪—業界指引》，改良製作過程及轉用不同配料，以減少麵包的鈉、脂肪及反式脂肪含量。
- Through modification of preparation methods and ingredients, the trade can make reference to the CFS' "Trade Guidelines for Reducing Sodium in Foods", "Trade Guidelines for Reducing Sugars and Fats in Foods" and "Trade Guidelines on Reducing Trans Fats in Food" for reducing sodium, fat and trans fat contents in bread.



給業界的建議 Advice to Trade (2)

- 應向供應商選用含較低鈉、脂肪及反式脂肪的配料。
- 建立公司食品資料庫，以監控所製造食品的鈉、脂肪及反式脂肪含量。
- 在餐牌、價錢牌及其他印刷品上為所供應的非預先包裝麵包提供營養成分資料，讓消費者作出知情的選擇。
- Choose ingredients with lower sodium, fat and trans fat contents from suppliers.
- Establish a database of the company products so as to monitor the sodium, fat and trans fat contents of foods.
- Provide nutrition information for non-prepackaged bread on menu, price tag or other printed materials so that consumers can make informed choice.



謝謝
Thank You

