

# 風險評估研究 點心的鈉含量

Risk Assessment Study on  
Sodium Content in Dim Sum

風險評估研究  
Risk Assessment Study

2022年7月  
July 2022





# 背景 Background



# 鈉對健康的影響

- 鈉是維持人體機能正常運作的必需元素。
- 進食過多鈉可能會增加患上高血壓的風險。
- 高血壓若不及早診治，可引致心臟病、中風和腎衰竭等疾病。

## Health effects of sodium

- Sodium is essential for body functions.
- Excessive sodium intake may increase the risk of developing high blood pressure.
- Untreated high blood pressure can lead to heart attack, stroke, kidney failure, etc.

# 世衛鈉攝取量建議

## • 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)



# WHO's sodium intake recommendation

## • Sodium

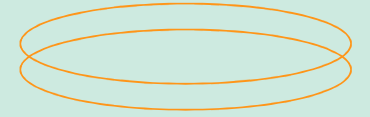
- The daily intake of sodium of an average adult should be less than 2,000 mg (5 g of salt, slightly less than 1 level teaspoon of salt)

# 本港的情況

- 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），有86.3%人口每日鹽攝取量超出世衛建議。

## Local situation

- The Report of Population Health Survey 2014/2015 published by the Department of Health revealed that persons aged 15-84 years 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.



# 是次研究 The Study



# 點心

- 點心是本港市民早餐及午餐時其中一個喜愛的選擇。
- 不少市民習慣在假日到酒樓品嚐點心。
- 食物安全中心的研究指出點心是本地成年人從食物攝取鈉的**第五大來源**。

# Dim Sum

- One of the favourite food choices of Hong Kong people for breakfast and lunch
- Many people habitually visit Chinese restaurants to enjoy these products on holidays.
- According to the CFS, Dim Sum was found to be the **fifth major contributors** to the total dietary sodium intake of the adult population in Hong Kong.

# 目的

- 了解本地點心的鈉含量。
- 持續監察本地市場的點心的鈉含量變化。
- 幫助與食物業界溝通，透過改良配方提供鈉含量較低及較健康的食物。
- 為市民從點心中減少鈉的攝取量制定建議。

# Objectives

- To investigate the levels of sodium in dim sum available in the local market
- To serve for continuous monitoring of the changes in the sodium contents in dim sum available in the local market
- To facilitate the discussion with the trade to provide healthier food products with less sodium contents through recipe reformulation
- To formulate advice to the public so as to lower the sodium intake from consumption of dim sum





# 方法 Method



# 選擇點心的準則

- 本地食物消費量資料
- 連鎖酒樓有供應的點心 (可反映點心的受歡迎程度)
- 覆蓋不同的點心類別

## Criteria of selection of Dim Sum

- Local food consumption data
- Availability in chain Chinese restaurants (which may reflect popularity of the product)
- Coverage of different categories of Dim Sum

# 選擇採樣地點的準則

- 優先選擇有較多店舖的酒樓及食物店舖
- 最多從每間店舖及連鎖店抽取3個樣本

## Criteria of selection of sampling location

- Chinese restaurants and food outlets with more number of outlets would be accorded higher priority
- Not more than 3 samples will be collected from the same outlet / chained store

# 研究範疇

- 12種點心樣本\*



- 4種醬料樣本



Soy sauce  
(豉油)



Sweet sauce  
(甜醬)



Sesame sauce  
(芝麻醬)



Worcestershire sauce  
(喼汁)

\* 沒添加醬料 No sauce added

# Scope of Study

- 12 types of dim sum samples\*



- 4 types sauce samples

# 點心樣本

# Dim Sum samples

	點心類別 Dim Sum type	樣本數目 No. of samples
1	淨腸粉 Steamed plain rice-roll	10
2	牛肉腸粉 Steamed rice-roll with beef	10
3	叉燒腸粉 Steamed rice-roll with barbecue pork	10
4	蒸叉燒包 Steamed bun with barbecue pork	10
5	蒸菜肉包 Steamed bun with pork and vegetables	10
6	煎蘿蔔糕 Pan-fried turnip cake	10
7	珍珠雞 Glutinous rice wrapped in lotus leaf	10
8	牛肉球 Steamed minced beef ball	10
9	蝦餃 Shrimp dumpling / Har gau	10
10	蒸粉果 Steamed Fan-guo	10
11	蝦肉燒賣 Shrimp siu mai	10
12	鮮蝦春卷 Spring roll with shrimp	10
	<b>整體 Overall</b>	<b>120</b>

# 醬料樣本

## Sauce samples

	醬料類別 Sauce type	混合樣本數目 (10個樣本混合成1個樣本) No. of composite samples (10 samples composited to 1 specimen)
1	豉油 Soy sauce	1
2	甜醬 Sweet sauce	1
3	芝麻醬 Sesame sauce	1
4	喼汁 Worcestershire sauce	1
	<b>整體 Overall</b>	<b>4</b>

# 採樣

- 抽取及化驗樣本時間
  - 2021年5月至8月
- 地點
  - 酒樓及點心店  
(來自53間店舖)
- 店舖供應醬料的方法
  - 問卷調查

# Sampling

- Sampling and testing period
  - May – August 2021
- Location
  - Chinese restaurants and Dim sum shops  
(from 53 shops)
- Ways serving sauces with Dim Sum in shops
  - Questionnaires

# 測試項目

- 測試由食物安全中心食物研究化驗所進行
- 點心及醬料樣本
  - 檢測樣本中的鈉含量

## Test Items

- Testing conducted by Food Research Laboratory of the Centre for Food Safety
- Dim sum and sauce samples
  - Tested for sodium contents



# 結果分析 (1)

# 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* $\leq 120\text{mg per } 100\text{g}^*$	每100克超過600毫克# $> 600\text{mg per } 100\text{g}^\#$

\*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”

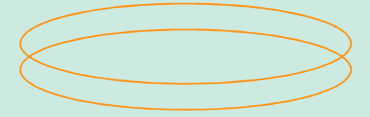
According to the “Shopping card” published by CFS which aims at facilitating consumers in making good use of nutrition labels

## 結果分析 (2)

- 鈉攝入量分析
  - 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
- 點心鈉含量與過往研究比較

## Data analysis (2)

- Analysis of sodium intake
  - The amount of nutrient intake is compared with the WHO's recommendation.
    - Sodium – less than 2,000mg daily
- The sodium contents of dim sum were compared with those obtained from previous studies.



# 結果 Findings





# 點心的鈉含量

## Sodium content in dim sum



# 點心樣本檢出的鈉含量

## Sodium content of dim sum samples

產品類別 Product type	樣本數目 Total no. of samples	每100克鈉含量平均值[範圍](毫克) Mean sodium level [range] (mg/100 g)
蝦肉燒賣 Shrimp siu mai	10	590 [490-680]
鮮蝦春卷 Spring roll with shrimp	10	480 [380-670]
牛肉球 Steamed minced beef ball	10	440 [350-540]
蝦餃 Shrimp dumpling / Har gau	10	430 [310-550]
珍珠雞 Glutinous rice wrapped in lotus leaf	10	420 [270-510]
煎蘿蔔糕 Pan-fried turnip cake	10	380 [280-450]
蒸叉燒包 Steamed bun with barbecue pork	10	320 [240-380]
蒸粉果 Steamed Fan-guo	10	310 [150-410]
蒸菜肉包 Steamed bun with pork and vegetables	10	230 [140-300]
叉燒腸粉 Steamed rice-roll with barbecue pork	10	180 [83-260]
牛肉腸粉 Steamed rice-roll with beef	10	160 [60-230]
淨腸粉 Steamed plain rice-roll	10	66 [3.0-200]
<b>整體 Overall</b>	<b>120</b>	<b>330 [3.0-680]</b>

# 點心樣本檢出的鈉含量 Sodium content of dim sum samples

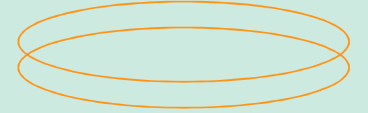
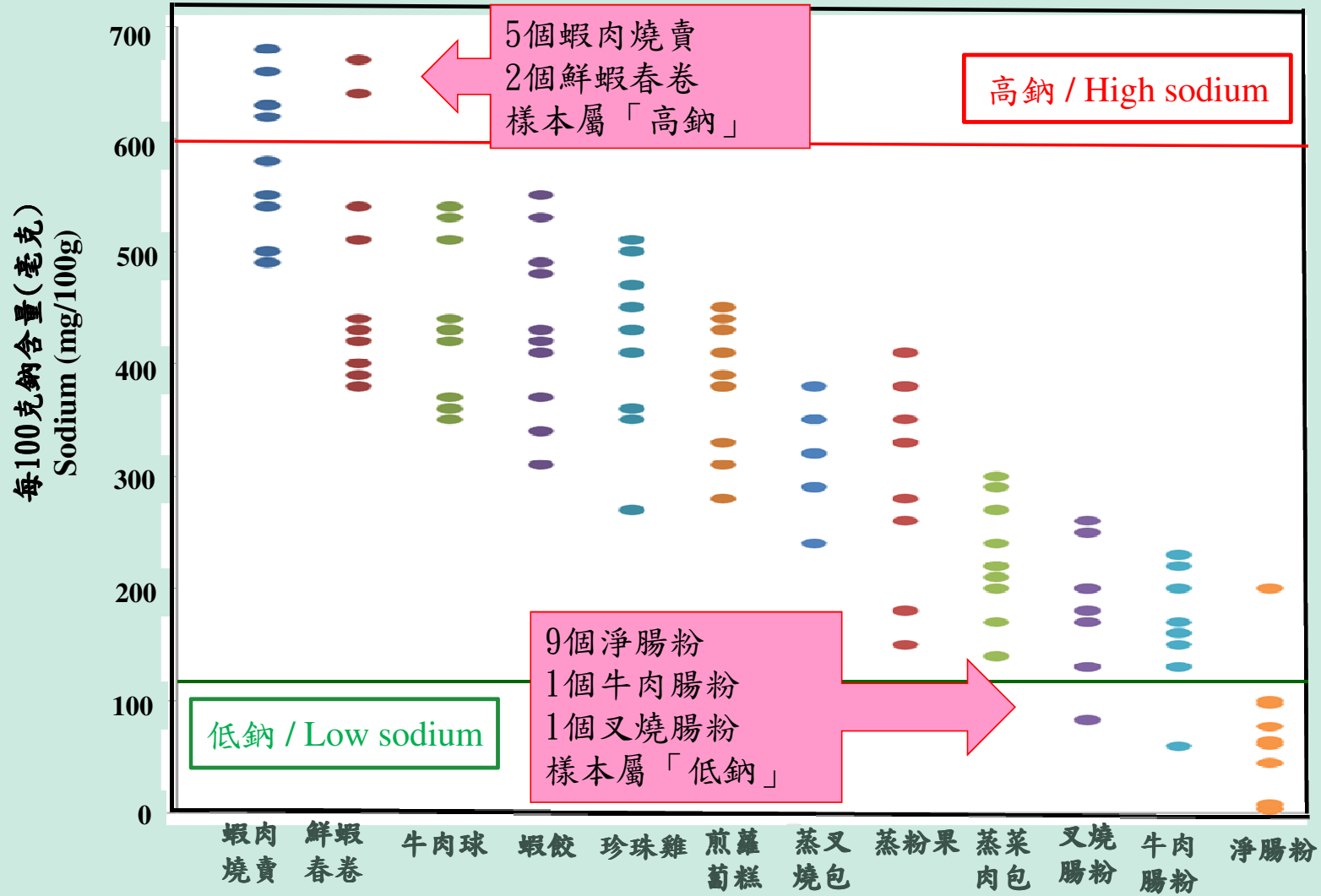
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淨腸粉 Steamed plain rice-roll		66 [3.0-200]
<b>整體 Overall</b>		<b>330 [3.0-680]</b>

鈉含量：最高為最低的一至兩倍  
Sodium content: Highest is 1 to 2 folds of lowest

鈉含量：最高為最低的超過50倍  
Sodium content: Highest is more than 50 folds of lowest

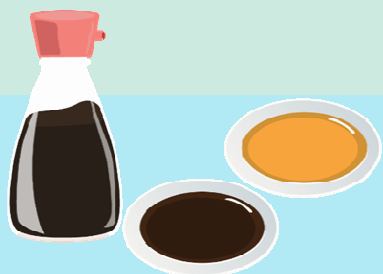
# 點心的鈉含量分佈圖

## Distribution chart of sodium content of dim sum

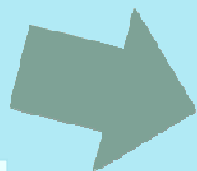


# 鈉從何來

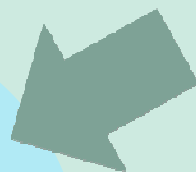
# Where does sodium come from



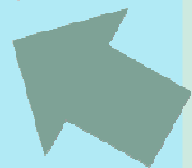
進食時添加的醬料  
Sauces added during  
consumption



原材料  
Ingredients



製作時添加鹽及調味料  
Salt and condiments/sauces added during  
manufacturing





# 如何減低點心的鈉含量?

- 參考食物安全中心的《降低食物中鈉含量的業界指引》

- 選用較低鈉含量的配料
- 逐步減少使用鹽和調味料



- 使用天然配料調味和醃製食物
  - 以蒜頭、辣椒、八角、香茅、羅勒等調味和醃製食物



# How to reduce sodium content in dim sum

- Making reference to the CFS's "Trade Guidelines for Reducing Sodium in Foods"

- Choose ingredients with lower sodium content
- Reduce the use of salt and seasonings in a stepwise manner
- Use natural ingredients for flavouring and marinating

- Use garlic, chilli, star anise, lemongrass, basil, etc. for flavouring and marinating



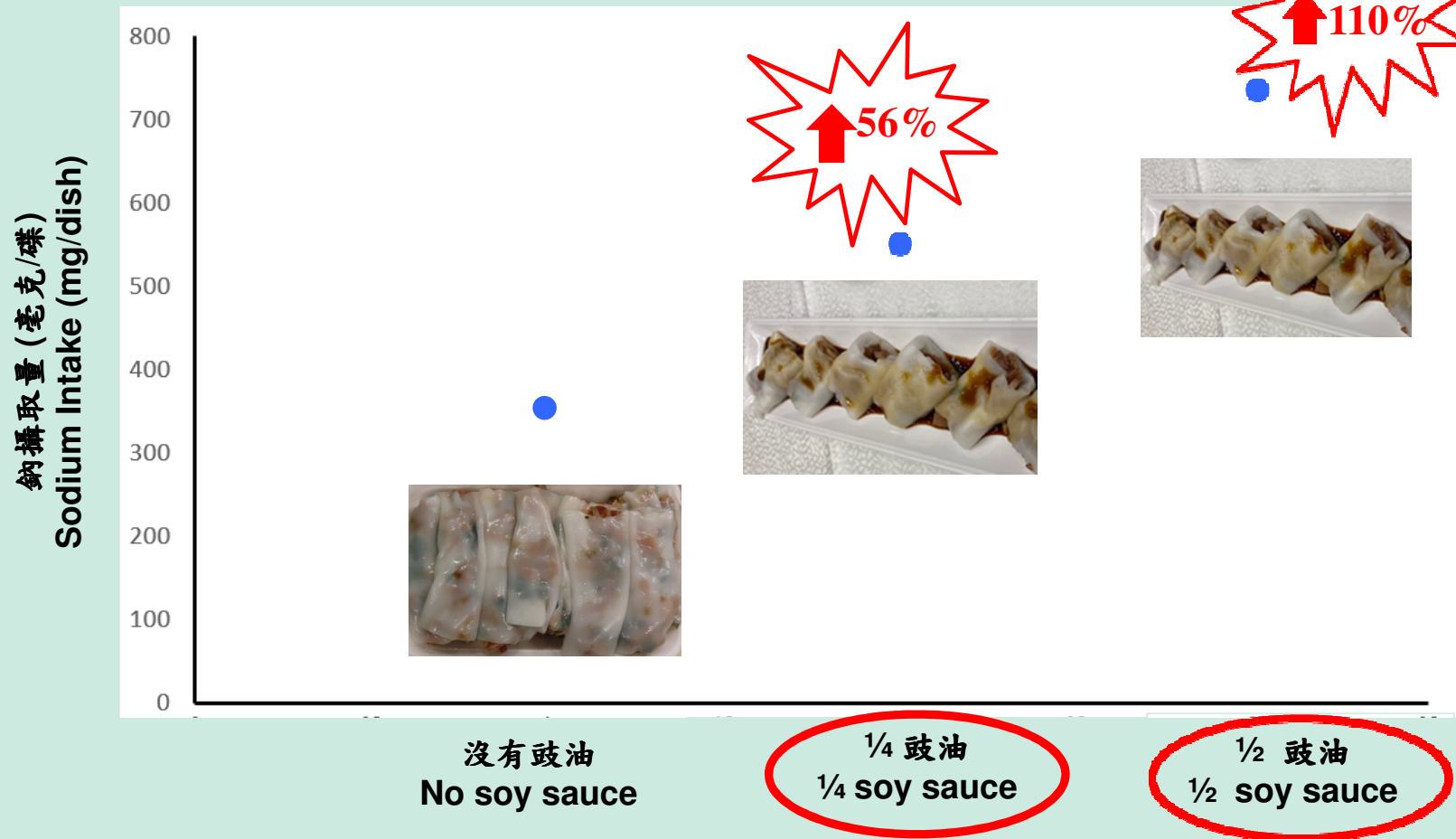
# 醬料樣本的鈉含量

## Sodium content in sauce samples

醬料種類 Sauce Type	每100克混合樣本鈉含量(毫克) Sodium content of composite sample (mg/100g)
豉油 Soy sauce	2600
甜醬 Sweet sauce	2400
喼汁 Worcestershire sauce	920
芝麻醬 Sesame sauce	33

# 進食點心及醬料的鈉攝取量

## Sodium intake of dim sum served with sauce



# 店舖供應醬料的方法

## Ways serving sauces with Dim Sum in shops

供應醬料的方法 Ways serving sauces with Dim Sum	店舖數目 (%) (總數：53) No. of Shop (%) (n=53)
以獨立容器盛載醬料 Serve in separate containers 	16 (30%)
直接添加於點心 Add directly to the dishes 	19 (36%)
詢問顧客的意見 Ask for the advice from consumers	18 (34%)

消費者可要求食肆把點心與醬料分開送上。嘗一嘗食物的味道才決定要否蘸醬料。

Consumers can request the dim sum to be served separately from sauces, and taste before dipping in sauces.

減低鈉攝取量  
Reduce sodium  
intake

模擬兩人於酒樓進食兩種點心  
看看鈉攝入量

Simulate two people eating out in Chinese restaurant,  
look into sodium intake for consuming  
two dim sum items



# 鈉含量較高的點心組合

Combination of dim sum items with relatively higher sodium content



	蝦肉燒賣(一碟) Shrimp siu mai (One dish)	鮮蝦春卷(一碟) Spring roll with shrimp (One dish)
平均重量(克) / Ave. Weight (g)	118	119
平均鈉含量(毫克/100克) Ave. Sodium Content (mg/100g)	590	480
平均一碟鈉含量(毫克) Ave. Sodium content per dish (mg)	700	570
總鈉含量(毫克) Total sodium content (mg)	1270	

	每人鈉攝入量 Sodium Intake per person	佔世衛建議每日攝取上限百分比 % WHO recommended daily intake upper limit
鈉(毫克) / Sodium (mg)	635	32%

Combination of dim sum items with one with relatively higher sodium content and one with relatively lower sodium content

一款鈉含量較高及一款鈉含量較低的點心組合



	蝦肉燒賣(一碟) Shrimp siu mai (One dish)	叉燒腸粉(一碟) Steamed rice-roll with barbecue pork (One dish)
平均重量(克) / Ave. Weight (g)	118	195
平均鈉含量(毫克/100克) Ave. Sodium Content (mg/100g)	590	180
平均一碟鈉含量(毫克) Ave. Sodium content per dish (mg)	700	350
總鈉含量(毫克) Total sodium content (mg)	1050	
	每人鈉攝入量 Sodium Intake per person	佔世衛建議每日攝取上限百分比 % WHO recommended daily intake upper limit
鈉(毫克) / Sodium (mg)	525	26%

# 鈉含量較低的點心組合

## Combination of dim sum items with relatively lower sodium content



叉燒腸粉 (一碟)

Steamed rice-roll with barbecue pork (One dish)



蒸菜肉包 (一碟)

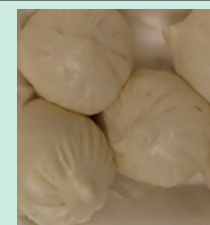
Steamed bun with pork and vegetables (One dish)

	每人鈉攝入量 Sodium Intake per person	佔世衛建議每日攝取上限百分比 % WHO recommended daily intake upper limit
鈉(毫克) / Sodium (mg)	290	15%



叉燒腸粉 (一碟) + ¼ 豉油

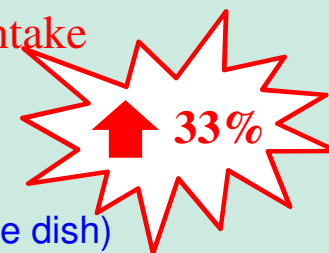
Steamed rice-roll with barbecue pork (One dish) + ¼ soy sauce



蒸菜肉包 (一碟)

Steamed bun with pork and vegetables (One dish)

鈉攝取量  
Sodium Intake

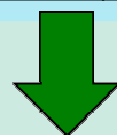


	每人鈉攝入量 Sodium Intake per person	佔世衛建議每日攝取上限百分比 % WHO recommended daily intake upper limit
鈉(毫克) / Sodium (mg)	390	20%



# 點心樣本的鈉含量與過往研究的比較 Comparison of sodium content in dim sum with previous studies

產品類別 Product type	本研究的每100克 鈉含量(毫克) Sodium content in current study (mg/100g)	2012年研究的 每100克鈉含量(毫克) Sodium content in studies in 2012 (mg/100 g)	百分比改變 (%) % change
蝦肉燒賣 Shrimp siu mai	590	630	-6.3%
鮮蝦春卷 Spring roll with shrimp	480	690	-30%
牛肉球 Steamed minced beef ball	440	430	+2.3%
蝦餃 Shrimp dumpling	430	470	-8.5%
珍珠雞 Glutinous rice wrapped in lotus leaf	420	410	+2.4%
煎蘿蔔糕 Pan-fried turnip cake	380	420	-9.5%
蒸叉燒包 Steamed bun with barbecue pork	320	370	-14%
蒸粉果 Steamed Fan-guo	310	420	-26%
叉燒腸粉 Steamed rice-roll with barbecue pork	180	210	-14%
牛肉腸粉 Steamed rice-roll with beef	160	180	-11%
淨腸粉 Steamed plain rice-roll	66	110	-40%



點心鈉含量有下降趨勢

Decreasing trend in the sodium content of dim sum

## 結果 1:

- 與過往研究比較，點心的鈉含量普遍下降。

**點心鈉含量有下降趨勢。**

## Finding 1:

- Comparing with previous study, sodium contents of dim sum were generally reduced.

**Decreasing trend in the sodium content of dim sum.**

## 結果 2:

- 個別同種類點心樣本的鈉含量差異很大。

這表示業界減低這些點心的鈉含量是切實可行的。

## Finding 2:

- Large variations in the sodium contents within the same type of certain dim sum.

**This reflects the possibility of the trade to reduce the sodium contents in these dim sum.**

### 結果 3:

- 添加醬料於點心會進一步增加點心的鈉含量。

消費者可要求食肆把點心與醬料分開送上。  
進食時可先嘗一嘗食物的味道才決定要否蘸醬料。

### Finding 3:

- Adding sauces to dim sum further increases sodium contents of dim sum.

Consumers can request the dim sum to be served separately from sauces, and taste before dipping in sauces.

# 給消費者的建議

- 留意點心的鈉含量，小心選擇並留意個別點心種類的鈉含量會較高。保持均衡和多元化的飲食。
- 要求食肆把點心與醬料分開送上。進食時可先嘗一嘗食物的味道才決定要否蘸醬料。而當蘸醬料時，亦應該輕蘸少量。

# Advice to Consumers

- Pay attention to the sodium contents in dim sum, choose carefully, and be aware that sodium contents of certain types of dim sum are higher. Maintain a balanced diet with variety.
- Request the dim sum to be served separately from sauces, and taste before dipping in sauces. Dip lightly in the sauces, if needed.



# 給業界的建議 (1)

- 業界應留意所供應的點心的鈉含量，會對公眾健康構成影響。
- 業界應參考食物安全中心的《降低食物中鈉含量的業界指引》，改良製作過程及轉變配料，以減少點心的鈉含量。(例如：選用較低鈉含量的配料、使用天然配料調味和醃製食物)



# Advice to Trade (1)

- Be aware of the sodium contents of dim sum on sale as it has public health implications.
- Reduce the sodium contents of dim sum through modification of preparation methods and use of ingredients by making reference to the CFS's "Trade Guidelines for Reducing Sodium in Foods". (e.g. choose ingredients with lower sodium content, use natural ingredients for flavouring and marinating)

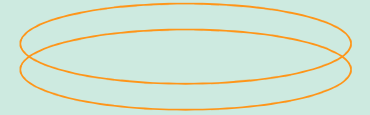
## 給業界的建議 (2)

- 以獨立容器盛載醬料，讓消費者按其口味添加於點心。
- 除提供標準分量的點心外，可提供較少分量(如容許消費者按件數點餐)的點心，讓消費者按所需的分量來選擇。
- 在設計套餐時，避免選擇鈉含量較高的點心組合，多提供鈉含量較低的點心。

## Advice to Trade (2)

- Serve sauces in separate containers to allow consumers to add sauces based on their preference.
- Apart from providing the standard portion size of dim sum, offer dim sum in smaller portion size (e.g. provide options for consumers to order by piece) for consumers to choose based on their needs.
- When setting set menu, prevent combination of Dim Sum items with higher sodium contents and offer Dim Sum items with lower sodium contents more often.





# 謝謝 Thank You

