

風險評估研究

《中式粥品的鈉含量》

# Risk Assessment Study on Sodium Content in Chinese Congee

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# 背景 Background



## 鈉攝取量 Sodium Intake

- ◆ 鈉攝取量過高與高血壓有密切關係，而高血壓是導致心血管疾病及中風等非傳染病的風險因素。  
Excessive sodium intake is closely related to hypertension, which is a risk factor for non-communicable diseases (NCDs) including cardiovascular diseases and stroke.
- ◆ 世界衛生組織建議，成年人每日的鹽攝取量應少於**5克(即2 000毫克鈉)**。  
The World Health Organization (WHO) recommends a daily salt intake of less than 5g (i.e. 2,000mg of sodium) for adults.

# 本港的鈉攝取量情況

## Local situation on Sodium Intake



- ◆ 根據衛生署進行的《二零二零至二零二二年度人口健康調查》，本港**15至84**歲人士每日的平均鹽攝取量為**8.5克(即約3 400毫克鈉)**，超出世衛成年人每日鹽攝取量少於**5克(2 000毫克鈉)**的建議水平。

In Hong Kong, according to the Population Health Survey 2020-22 conducted by the Department of Health, persons aged 15-84 years consumed 8.5g of salt (i.e. around 3,400mg sodium) per day, which exceeded the WHO's recommendation of salt intake of less than 5g (2,000mg sodium) per day for adult.

香港特別行政區政府衛生署(2023)。《二零二零至二零二二年度人口健康調查報告書》  
The Department of Health, The Government of Hong Kong Special Administration Region (2023). Report of Population Health Survey 2020-22.



# 是次研究 The Study

# 中式粥品 Chinese Congee

- ◆ 常見於中式食肆、快餐店和粥品專賣店。

## Found on the menus of:

- 1) Chinese restaurants,
- 2) Fast food restaurants
- 3) Congee specialty food premises



- ◆ 傳統上，中式粥品是本港市民日常(特別是早餐)食品之一。  
Traditionally, Chinese congee is **one of the common food items consumed in Hong Kong**, particularly during breakfast

# 中式粥品 Chinese Congee

- ◆ 粥料五花八門，有只有一種配料(米)的白粥，亦有加入多種配料的各款粥品。

Wide range of ingredients in congee, from one single ingredients – rice (plain congee) to multiple ingredients



皮蛋

Lime-preserved egg



豬肉

Pork



牛肉

Beef



雞肉

Chicken



內臟

Organ meats



豬紅

Pig blood curd



魚肉

Fish



乾瑤柱

Dried scallop



粟米

Sweet corn



南瓜

Pumpkin

# 中式粥品 Chinese Congee



- ◆ 中式粥品的鈉含量不但取決於粥底，而且受粥料影響。  
The sodium level of Chinese congee hinges **not only** on the congee base, **but also the ingredients used**.
- ◆ 粥品通常分量頗大(每碗一般多於200毫升)，就一些粥款的鈉含量而論，食用其可能導致攝取大量的鈉。  
Congee is usually consumed in considerable volumes (normally more than 200ml for a bowl of congee), a significant amount of sodium may be consumed based on the sodium contents of the some types of congee.



# 目的 Objectives



- ◆ 檢測本地市面上較常食用中式粥品的鈉含量

To measure the levels of sodium in relatively common congee available in the local market

- ◆ 監察本地市面上粥品的鈉含量變化

To serve for monitoring of changes in the sodium contents in congee in the local market

- ◆ 促進與業界的溝通，透過改良食品配方提供鈉含量較低和較健康的食物

To facilitate the discussion with the trade to provide healthier food products with less sodium contents through recipe reformulation

- ◆ 就市民如何減少從粥品攝取鈉一事制訂膳食建議，讓消費者在選擇食物時有所依據，以減少膳食中鈉的攝取量

To formulate dietary advice for the public to lower the sodium intake from consumption of congee so that consumers can make food choices to reduce sodium intake from the diet



# 方法

# Methodology

# 研究範圍 Scope

- ◆ 涵蓋在本地食肆及食店較常食用的中式粥品。
  - ◆ 樣本的抽取是跟據所檢視的菜單及視乎該粥品的供應情況。
  - ◆ 這項研究涵蓋12款有配料中式粥。
  - ◆ 消費者在點選有配料粥品時可選擇白粥底 / 有味粥底，亦從不同商戶 / 食肆收集該兩款粥底樣本，分析鈉含量。
- 
- ◆ Relatively common Chinese congee samples from restaurants and food outlets were covered.
  - ◆ Based on review of the menus, and subject to the availability.
  - ◆ 12 types of Chinese congee with ingredients were covered.
  - ◆ Individual plain congee (白粥底)/ seasoned congee (有味粥底) from various outlets/ restaurants were also collected & tested to study the sodium content in these two kinds of congee bases for cooking of congee with ingredient(s) which could be available to consumers as a choice when ordering congee with ingredients.

# 研究範圍 Scope

## 12款有配料中式粥品 12 types of Chinese congee with ingredients

有配料中式粥品款式 Type of Chinese congee with ingredients*		
1	Congee with preserved egg and pork	皮蛋瘦肉粥
2	Congee with dried fish, peanut and pork	柴魚花生粥
3	Boat congee	艇仔粥
4	Congee with pig giblets	及第粥
5	Congee with fish meat	魚片粥/ 魚腩粥
6	Congee with pig's blood	豬紅粥
7	Congee with beef	牛肉粥
8	Congee with dace ball	鯪魚球粥
9	Congee with pig's liver	豬潤粥
10	Congee with chicken	雞粥
11	Congee with sweet corn	粟米粥
12	Congee with pumpkin	南瓜粥

備註：在有供應和可行的情況下，我們從每家食肆、商戶收集白粥底有味粥底作“背景相比樣本”，用以研究鈉含量的背景水平。Remark: plain congee base (白粥底)/ seasoned congee base (有味粥底) was collected from each restaurant/ outlet to be used as 'sample blank' for study of background level of sodium content, when available & feasible.

# 抽取樣本 Sampling

- ◆ 抽取樣本時間: 2022年11月至12月
- ◆ 地點: 中式食肆、快餐店和粥品專賣店等 (分店數目較多者為優先被抽樣對象)。
- ◆ 樣本數量: 每款粥品採集10個或以上的樣本(即來自不同商戶、食店的樣本)，(南瓜粥除外，因市面供應的食肆不多) 以比較不同食店、食肆、品牌粥品的鈉含量。
- ◆ 從同一商戶、連鎖店、品牌抽取的有配料粥品樣本的款式，以三款為限。
- ◆ 在有供應和可行的情況下，亦從同一家店鋪收集用以配製有配料粥品的白粥底及 / 或有味粥底作“背景相比樣本”，用以研究鈉含量的背景水平。
  
- ◆ Sampling period: November - December 2022
- ◆ Location: Chinese restaurants, fast food restaurants and congee speciality food premises (those with more outlets accorded higher priority)
- ◆ 10 or more samples (i.e. samples from different outlets / different brands) of each selected type of congee (except congee with pumpkin 南瓜粥 due to limited market availability)
- ◆ Not more than 3 sample types of the congee with ingredients was/ were collected from the same outlet / chained store / brand
- ◆ The “plain congee base” and/or “seasoned congee base” for preparation of congee with ingredients were collected from the same shop when available & feasible, to be used as ‘sample blank’ for study of background level of sodium content.

# 抽取樣本 Sampling

## ◆ 中式粥品樣本總覽 The summary for congee sampling:

	中式粥品樣本款式 Type of Chinese congee samples		樣本數量 Number
1	Congee with preserved egg and pork	皮蛋瘦肉粥	12
2	Congee with dried fish, peanut and pork	柴魚花生粥	10
3	Boat congee	艇仔粥	10
4	Congee with pig giblets	及第粥	10
5	Congee with fish	魚片粥 / 魚腩粥	10
6	Congee with pig's blood	豬紅粥	10
7	Congee with beef	牛肉粥	10
8	Congee with dace ball	鯪魚球粥	10
9	Congee with pig's liver	豬潤粥	10
10	Congee with chicken	雞粥	10
11	Congee with sweet corn	粟米粥	10
12	Congee with pumpkin	南瓜粥	5
A	Plain Congee	白粥底/ 白粥底	24
B	Seasoned Congee	有味粥底	33
	<b>OVERALL</b>		<b>174</b>



# 測試項目 Test items

- ◆ 粥品樣本的鈉含量分析由食物安全中心的食物研究化驗所進行。
- ◆ 化驗所量度了粥品樣本的重量和食用份量總量。
- ◆ 測定粥品樣本的鈉含量。
- ◆ Laboratory analysis of sodium contents of congee samples was conducted by the Food Research Laboratory (FRL) of the CFS.
- ◆ Congee samples were weighed and the total volume for consumption per serving was measured.
- ◆ The sodium contents of the congee samples were analysed.

# 結果分析 Data Analysis

- ◆ 粥品樣本的鈉含量水平 (以每100克可食用部分含若干毫克鈉來標示)
- ◆ 每100克食物若含不超過120毫克鈉，可視為“低鈉”(《食物及藥物(成分組合及標籤)規例》(第132W章)訂明)\*
- ◆ 每100克食物若含多於600毫克鈉，即屬“高鈉”(根據食安中心“購物卡”的資料)#
- ◆ Sodium contents of the samples (presented as mg/100g of edible portion).
- ◆ Samples with sodium content not more than 120mg per 100g will be considered as “low” in sodium according to the Food and Drugs (Composition and Labelling) Regulations (Cap. 132 W)\*
- ◆ Samples with sodium content more than 600mg per 100g will be considered as “high” in sodium according to the information on CFS’ Shopping Card#.

\*Hong Kong e-Legislation. Food and Drugs (Composition and Labelling) Regulations (Cap. 132 W) <https://www.elegislation.gov.hk/hk/cap132W>

#Centre for Food Safety (2020). Shopping Cards.

[www.cfs.gov.hk/english/programme/programme\\_nifl/programme\\_nifl\\_public\\_Resources\\_Shopping\\_Card.html](http://www.cfs.gov.hk/english/programme/programme_nifl/programme_nifl_public_Resources_Shopping_Card.html)



# 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* ≤120mg per 100g*	每100克超過600毫克# >600mg 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 (2) Data Analysis (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
- ◆ 比較粥品樣本的鈉含量範圍與食安中心過往研究所得出的數值。
- ◆ Analysis of sodium intake: the amount of nutrient intake is compared with the WHO's recommendation.
  - ✓ Sodium – less than 2,000mg daily
- ◆ Range of sodium contents of the samples were compared with previous studies.

\*Hong Kong e-Legislation. Food and Drugs (Composition and Labelling) Regulations (Cap. 132 W) <https://www.elegislation.gov.hk/hk/cap132W>  
#Centre for Food Safety (2020). Shopping Cards.  
[https://www.cfs.gov.hk/english/programme/programme\\_nifl/programme\\_nifl\\_public\\_Resources\\_Shopping\\_Card.html](https://www.cfs.gov.hk/english/programme/programme_nifl/programme_nifl_public_Resources_Shopping_Card.html)



# 中式粥品的鈉含量

## Sodium content in

### Chinese Congee

# 結果 Findings

- ◆ 從中式食肆、快餐店和粥品店收集了合共174個較常食用非預先包裝粥品樣本個粥品樣本，當中包括 12款 有配料中式粥(117個樣本)，以及個別可供消費者選擇的白粥底(24個樣本)和有味粥底(已經調味的白粥)(33個樣本)。
- ◆ 所有 有配料粥品樣本的 平均鈉含量 為 每100克 含 270毫克鈉。
- ◆ 鈉含量 介乎 每100克 33毫克 至 460毫克 之間。
- ◆ A total of 174 non-prepackaged food samples covering 12 types (117 samples) of Chinese congee with ingredients, and the individual plain congee (24 samples) and seasoned congee (plain congee with seasoning) (33 samples) which could be available to consumers as the choice of congee base for cooking, were collected from Chinese restaurants, fast food restaurants and congee shops for analysis of sodium contents.

## Sodium contents for samples of congee with ingredients

- ◆ Average: 270mg/100g
- ◆ Range: 33mg/100g - 460mg/100g

# 結果 Findings

## 12款有配料中式粥的鈉含量

## Sodium contents of 12 types of Chinese congee with ingredient(s)

中式粥款式 Type of Chinese Congee	樣本數量 Number of samples	鈉含量(毫克/100克) Sodium content (mg/100g)		
		平均 Average	最低 Minimum	最高 Maximum
皮蛋瘦肉粥 Congee with preserved egg and pork	12	290	250	350
柴魚花生粥 Congee with dried fish, peanut and pork	10	240	33	400
艇仔粥 Boat congee	10	270	220	340
及第粥 Congee with pig giblets	10	290	250	350
魚片粥/魚腩粥 Congee with fish meat	10	220	170	260
豬紅粥 Congee with pig's blood	10	270	170	360
牛肉粥 Congee with beef	10	260	170	320
鯪魚球粥 Congee with dace ball	10	280	250	340
豬膶粥 Congee with pig's liver	10	330	230	460
雞粥 Congee with chicken	10	300	240	390
粟米粥 Congee with sweet corn	10	220	160	310
南瓜粥 Congee with pumpkin	5	180	130	240
合計 Overall	117	270	33	460

是幾個同款的粥品樣本其鈉含量差異頗大，顯示這些中式粥品有減低鈉含量的空間。 Within the same type of certain congee,

there were wide variations in the sodium content of samples. This indicated the potential for sodium reduction in these congee.

# 結果 Findings

- ◆ 平均鈉含量最高的幾款粥品:
  - ◆ 豬潤粥 (每100克 含 330毫克鈉)
  - ◆ 雞粥 (每100克 含 300毫克鈉)
  - ◆ 及第粥 (每100克 含 290毫克鈉)
  - ◆ 皮蛋瘦肉粥 (每100克 含 290毫克鈉)
  
- ◆ Congee types with the top highest average sodium contents:
  - ◆ congee with pig's liver (330mg/100g)
  - ◆ congee with chicken (300mg/100g)
  - ◆ congee with pig giblets (290mg/100g)
  - ◆ congee with preserved egg and pork (290mg/100g)

# 結果 Findings

- ◆ 平均鈉含量最低的幾款粥品：
  - ◆ 南瓜粥 (每100克 含 180毫克鈉)
  - ◆ 魚片粥 / 魚腩粥 (每100克 含 220毫克鈉)
  - ◆ 粟米粥 (每100克 含 220毫克鈉)
- ◆ Congee types with the lowest average sodium contents:
  - ◆ congee with pumpkin (180mg/100g)
  - ◆ congee with fish (220mg/100g)
  - ◆ congee with sweet corn (220mg/100g)

# 結果 Findings

與過往研究作比較

Compare with previous studies

這次研究所得的平均鈉含量 (毫克/100克) Average sodium content in current study (mg/100g)	食安中心2012年研究所得的平 均鈉含量 (毫克/100克) Average sodium content in 2012' CFS study (mg/100g)	食安中心2006年研究所得的平 均鈉含量 (毫克/100克) Average sodium content in 2006' CFS study (mg/100g)
260	280	280



# 結果 Findings

每碗粥的鈉攝取量 - 佔世衛建議每日鈉攝取量上限的百分比

Sodium intake of one bowl of congee - Contribution to WHO's recommended daily sodium intake upper limit

	粥品款式 Type of Congee Product	樣本數量 Number of samples	平均鈉含量[範圍] (毫克/100克) Sodium Mean [range] (mg/100g)	每碗粥的平均鈉攝取量 (毫克) Mean Sodium Intake per bowl of congee (mg)	佔世衛建議每日鈉攝取量上限 (2 000毫克) 的百分比 Contribution to WHO's recommended daily sodium intake upper limit (2000mg)
1	Congee with preserved egg and pork (皮蛋瘦肉粥)	12	290 [250-350]	1600	80%
2	Congee with dried fish, peanut and pork (柴魚花生粥)	10	240 [33-400]	1200	60%
3	Boat congee (艇仔粥)	10	270 [220-340]	1500	75%
4	Congee with pig giblets (及第粥)	10	290 [250-350]	1800	90%
5	Congee with fish (魚片粥/魚腩粥)	10	220 [170-260]	1300	65%
6	Congee with pig's blood (豬紅粥)	10	270 [170-360]	1500	75%
7	Congee with beef (牛肉粥)	10	260 [170-320]	1400	70%
8	Congee with dace ball (鯪魚球粥)	10	280 [250-340]	1600	80%
9	Congee with pig's liver (豬鬃粥)	10	330 [230-460]	2000	100%
10	Congee with chicken (雞粥)	10	300 [240-390]	1800	90%
11	Congee with sweet corn (粟米粥)	10	220 [160-310]	1200	60%
12	Congee with pumpkin (南瓜粥)	5	180 [130-240]	940	47%
A	Plain congee base (白粥底)	24	8.6 [3.5-37]	43	2%
B	Seasoned congee base (有味粥底)	33	110 [6.4-300]	1000	50%
	<b>合計 OVERALL</b>	<b>174</b>	<b>3.5 - 460</b>	<b>(43 - 2000)</b>	<b>(2% - 100%)</b>

# 結果 Findings

## 鈉攝取量 佔 世衛建議每日鈉攝取量上限的百分比

### Contribution to WHO's recommended daily sodium intake upper limit

模擬消費者食用一碗(平均約500克)各款粥品的情況，以評估其鈉攝取量，以及估算有關鈉攝取量佔世衛建議每日鈉攝取量上限的百分比

- - 假設一名消費者進餐時食用一碗中式粥品，當其食用一碗豬潤粥的鈉攝取量已達到世衛建議每日鈉攝取量的上限
- - 假設食用一碗南瓜粥，鈉攝取量則約為世衛建議每日鈉攝取量上限的一半(47%)。
- - 一碗有味粥底的平均鈉攝取量已佔世衛建議每日鈉攝取量上限的一半(50%)，但一碗白粥底(加入少許或不加調味料)則只佔世衛建議每日鈉攝取量上限的2%，可見製作有配料粥品時選用只加入少許或不加調味料的白粥底有助大幅減少鈉攝取量。因不同有味粥底樣本的鈉含量差別頗大，這發現顯示有味粥底有減鈉含量的空間。

Scenarios of consuming one bowl (average about 500 g) of the various types of congee can be simulated to assess the sodium intake for the consumer, and to estimate the percentage contribution to WHO's recommended daily sodium intake upper limit

- Assuming a consumer eats one bowl of Chinese congee for a meal, the average sodium intake for consuming one bowl of congee with pig's liver reaches WHO's recommended daily sodium intake upper limit.
- average sodium intake per bowl of congee with pumpkin would contribute to about half (47%) of WHO's recommended daily sodium intake upper limit.
- The choice of congee with ingredients will greatly affect the sodium intake. While the average sodium intake of one bowl of seasoned congee base would contribute to about half (50%) of WHO's recommended daily sodium intake upper limit, the average sodium intake of one bowl of plain congee base (with little or no seasoning added) would contribute only to 2% of WHO's recommended daily sodium intake upper limit. This shows that choosing plain congee base with little or no seasoning added as the base for making the congee with ingredient(s) could help reduce the amount of sodium intake by a large extent. Because there was a wide variation in sodium content in the seasoned congee base in various samples, such finding indicated that there is potential for reduction of sodium in the seasoned congee base.

# 結論及建議

## Conclusion and Recommendations

### 結論 Conclusion

- 某幾款粥品(例如豬潤粥、雞粥、及第粥和皮蛋瘦肉粥)的鈉含量相對較高;
  - 以蔬菜為主要配料的粥平均鈉含量普遍較低;
  - 選吃不同款式的有配料粥品可以對鈉攝取量影響很大;
  - 儘管沒有樣本達“高鈉”水平，但由於粥的分量通常頗大，食用某幾款粥品(例如一碗豬潤粥)的鈉攝取量可能已接近世衛組織建議的每日攝取量上限;
  - 白粥底的鈉含量遠低於有味粥底，這表明尤其在烹煮有配料粥品時以白粥代替有味粥作為粥底，可減少食用粥品時的鈉攝取量。
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- The sodium contents of certain types of congee, such as congee with pig's liver, congee with chicken, congee with pig giblets and congee with preserved egg and pork were relatively higher;
  - The average sodium contents of congee with vegetables as major ingredients have generally lower sodium contents;
  - The choice of congee with different ingredients can greatly affect the sodium intake;
  - Although none of the samples were considered “high” in sodium, the sodium intake from consuming certain types of congee, such as a bowl of congee with pig's liver, may approach WHO's recommended daily intake upper limit due to the considerable volume consumed;
  - &
  - the sodium content of plain congee base was much lower than that of seasoned congee base, indicating that the sodium intake from the consumption of congee can be lowered by choosing plain congee as the congee base instead of seasoned congee, particularly for congee with ingredient(s).

# 結論及建議

## Conclusion and Recommendations

### 建議 Recommendations

#### 給消費者的建議

1. 留意中式粥品的鈉含量和小心選擇。
2. 點選以白粥底而非以有味粥底烹煮的粥品。
3. 留意食用粥品的分量，如分量大，可考慮與他人分享。
4. 保持均衡和多元化的飲食。

#### Advice to Consumers

1. Pay attention to the sodium contents in Chinese congee and, choose carefully.
2. Order congee cooked with plain congee base instead of seasoned congee base.
3. Pay attention to the amount of congee consumed. Consider sharing the congee when the portion is large.
4. Maintain a balanced diet with variety.

# 結論及建議

## Conclusion and Recommendations

### 建議 Recommendations

#### 給業界的建議

1. 參考食安中心的《降低食物中鈉含量的業界指引》，改良粥底的製作方法，以減少粥底和有配料粥品的鈉含量(例如：選用鈉含量較低的配料，以及使用天然配料調味和醃製食物)。
2. 提供只加入少許或不加調味料的白粥作為烹煮有配料粥品的粥底，供消費者選擇。
3. 除提供標準分量的粥品外，可提供分量較少的粥品，讓消費者按需要選擇。

#### Advice to the Trade

1. Reduce the sodium contents of the congee base and that of congee with ingredient(s) through product reformulation by making reference to the CFS's "Trade Guidelines for Reducing Sodium in Foods" (e.g. by choosing ingredients with lower sodium content, and using natural ingredients for flavouring and marinating).
2. Provide the choice of plain congee with little or no seasoning added as the base for cooking congee with ingredient(s).
3. Apart from providing the standard portion size of congee, offer congee in smaller portion size for consumers to choose based on their needs.



~謝謝~

~Thank you~