

# 本地兒童餐營養素含量

**Nutrient Contents of Children's Meals  
in Hong Kong**

# 需要限制攝入量的營養素

## Nutrients that Need Restricted Intake

- 如長期過量攝入一些營養素，能引致過重、肥胖和其他長期病患，因此需要限制攝入。
- 例如：鈉(鹽)、糖、脂肪
- We need to restrict the intake of some nutrients as excessive intake of these nutrients can lead to overweight, obesity and other chronic diseases.
- E.g. sodium (salt), sugars, fats

# 膳食營養素參考攝入量

## Dietary Reference Intakes (DRIs)

- DRIs可幫助市民合理地攝入營養素，預防營養不良或過量，減少慢性病發生的風險。
- DRIs是根據包括年齡、性別和活動量等資料釐定。
- DRIs can help people to intake nutrients reasonably, prevent malnutrition or over-nutrition, and to reduce the danger from chronic diseases.
- DRIs are set with reference to information including age, sex and activity levels etc.

# 研究使用的膳食營養素參考攝入量/建議 DRIs/Recommendations used in this study

- 參考中國營養學會2013年版中國居民膳食營養素參考攝入量及世界衛生組織建議。
- 實際個別兒童需求的情況可能有所不同。
- Reference has been made to the 2013 edition of the Chinese DRIs of the Chinese Nutrition Society and recommendations from World Health Organization (WHO).
- Actual need varies from person to person.

# 有關3至11歲膳食營養素參考攝入量及建議 DRIs and Recommendations for 3 to 11 years old

	能量需要 (千卡/日) [1]		總脂肪(佔能量的百分比) [1]	經換算後總脂肪建議攝取量 (克/日)		飽和脂肪(佔能量的百分比) [1]	經換算後飽和脂肪建議攝取量 (克/日)		反式脂肪(佔能量的百分比) [1][2]	經換算後反式脂肪建議攝取量 (克/日)		游離糖(佔能量的百分比) [1][3][4]	經換算後游離糖攝取量 (克/日)		鈉 (毫克/日) [1]
年齡	中等活動量 EER		AMDR	少於		AMDR	少於		UL	少於		PNIG	少於		PI
	男	女		男	女		男	女		男	女		男	女	
3	1250	1200	35 (AI)	49	47	-	-	-	<1	1.4	1.3	<10	31	30	-
4	1300	1250	20 - 30	43	42	<8	12	11	<1	1.4	1.4	<10	33	31	1200
5	1400	1300	20 - 30	47	43	<8	12	12	<1	1.6	1.4	<10	35	33	1200
6	1600	1450	20 - 30	53	48	<8	14	13	<1	1.8	1.6	<10	40	36	1200
7	1700	1550	20 - 30	57	52	<8	15	14	<1	1.9	1.7	<10	43	39	1500
8	1850	1700	20 - 30	62	57	<8	16	15	<1	2.1	1.9	<10	46	43	1500
9	2000	1800	20 - 30	67	60	<8	18	16	<1	2.2	2.0	<10	50	45	1500
10	2050	1900	20 - 30	68	63	<8	18	17	<1	2.3	2.1	<10	51	48	1500
11	2350	2050	20 - 30	78	68	<8	21	18	<1	2.6	2.3	<10	59	51	1900

註：

除反式脂肪和油離糖外，營養素參考攝入量是根據中國營養學會2013年版中國居民膳食營養素參考攝入量。

[1] 各營養素的中英文名詞如下：AI (adequate intake) 適宜攝入量、AMDR (acceptable macronutrient distribution ranges) 宏量營養素可接受範圍、EER (estimated energy requirement) 能量需要量、PI (proposed intakes for preventing non-communicable chronic diseases) 預防非傳染性慢性病的建議攝入量、PNIG (population nutrient intake goal) 人口營養素攝入量目標、UL (tolerable upper intake level) 可耐受最高攝入量。

[2] 世界衛生組織在2008年有關反式脂肪攝入量的建議

[3] 游離糖 (free sugar) 是包括食品中添加的糖以及天然存在於蜜糖、糖漿、果汁和濃縮果汁中的糖。部分食物中的糖分可能較難分辨是否添加。

[4] 世界衛生組織在2015年有關游離糖 (free sugar) 攝取量的建議

# 研究模式 Nature of Study

- 與消費者委員會合作研究
- 報告已於本月十六日在選擇月刊(第461期)刊登
- Joint study with the Consumer Council
- Result released in the Choice Magazine (Issue 461) on 16<sup>th</sup> March.

# 目的 Objectives

- 測試一些本地食肆供應的兒童餐，以探討這些兒童餐營養素含量的情況。
- To gain understanding of the nutrition contents of children's meals through nutrition analysis.

# 採樣 Sampling

- 抽取樣本時間:

主要在2014年8月至9月

- 化驗樣本數目: 90

- 地點: 15 間本地食肆

快餐店、日式餐廳、西式(包括混合西式)餐廳、港式茶餐廳。

- Sampling period:

Mainly during August to September 2014

- Number of analysis: 90

- Venue: 15 local restaurants

Fast-food restaurants, Japanese restaurants, western (including fusion) restaurants and HK style tea restaurants



# 食肆

# Restaurants

味千拉麵

Ajisen Ramen

壹番屋

Curry House Co Co

井井屋食堂

Dondonya Shokudo

元氣壽司

Genki Shshi

北海道牧場餐廳

Hokkaido Farm Restaurant

板長壽司

Itacho Sushi

肯德基

KFC

龍鳳冰室

Lung Fung Café

麥當勞

McDonalds

Outback Steakhouse

Pizza Express

必勝客

Pizza Hut

百佳餐廳

Pokka Café

Ruby Tuesday

UCC Coffee Shop

# 樣本處理方式 Handling of Samples

- 如兒童餐只有單一選擇，會以整個兒童餐化驗。
- 如該兒童餐有多種配搭選擇，則會以個別選擇為單位（如不同的主菜、配菜、飲品），分別化驗。
- 消費者可以計算出各種可能的兒童餐配搭的營養成分。
- Children's meals were analysed as a single sample if there were single option.
- Children's meals with multiple options (e.g. main courses, side dishes, drinks etc.) were analysed individually
- Facilitate the consumer to calculate the nutrient contents of various combinations of children's meals.

# 測試項目 Test Items

- 能量
  - 總脂肪
  - 飽和脂肪
  - 反式脂肪
  - 糖
  - 鈉
- Energy
  - Total fat
  - Saturated fat
  - Trans fat
  - Sugars
  - Sodium

# 結果

## Results

# 假設 Assumption

- 在分析時假設每份兒童餐提供全日所需的能量和各類營養素的三分之一
- Assumption was made that each children's meal contribute to one-third of the daily requirements in energy and other nutrients

# (I) 能量 Energy

# 能量 Energy (1)

## 最低能量含量組合:

➤ 肯德基 - 巴辣香雞翼、  
香熱粟米、屈臣氏蒸  
餡水(180千卡)

- 能量值偏低(3歲女孩每天能量需要量的1/3(即400千卡)的45%)
- 作為一個正餐，組合可能不足以令孩童飽足

## Meal with the lowest energy level:

➤ KFC - chicken wing, corn,  
Watson's distilled water  
(180kcal)

- Energy level is on the low side (about 45% of 1/3 of the daily energy requirements for a 3 year old girl, i.e. 400kcal)
- May not provide enough energy to keep children satiate as a main meal

# 能量 Energy (2)

## 最高能量含量組合:

- Ruby Tuesday - 迷你漢堡包及薯條，跟 Qoo 果汁飲品及朱古力雪糕新地 (1300 千卡)
  - 能量值偏高
  - 11歲男孩每天能量需要量的1/3(即783千卡)的166%

## Meal with the highest energy level:

- Ruby Tuesday - Mini burger with fries, Qoo juice drink, chocolate sundae (1300 kcal)
  - Energy level is on the high side
  - about 166% of the 1/3 the daily energy requirements for a 11 year old boy, i.e. 783 kcal



# 能量 Energy (3)

- 能量較高的兒童餐當中可能的共通點

- 較高脂肪的成分

- Ruby Tuesday的迷你漢堡包薯條含有59克脂肪

- 較高糖的成分

- Ruby Tuesday的Qoo juice drink含有37克糖

- Possible commonalities in meal combinations with higher energy levels

- Higher fat component

- Ruby Tuesday Mini burger fries contains 59g fat

- Higher sugars component

- Ruby Tuesday Qoo juice drink contains 37g sugars

## **(II) 總脂肪 Total Fat**

# 總脂肪 Total fat (1)

最低總脂肪含量組合:

- 肯德基 - 巴辣香雞翼  
、香熱粟米、飲品  
(8.2克)

Meal with the lowest  
total fat level:

- KFC - chicken  
wing, corn, drinks  
(8.2g)

# 總脂肪 Total fat (2)

## 最高總脂肪含量組合:

➤ Ruby Tuesday - 迷你漢堡包及薯條跟飲品跟朱古力雪糕新地 (68克)

- 總脂肪含量偏高
- 11歲男孩每天總脂肪最高建議攝取量的1/3(即26克)的 262%

## Meal with the highest total fat level:

➤ Ruby Tuesday - Mini burger with fries, soft drink, chocolate sundae (68g)

- Total fat level is on the high side
- about 262% of the 1/3 of the maximum recommended daily intake level of total fat for a 11 year old boy, i.e. 26g

# 總脂肪 Total fat (3)

- 兒童餐當中含有的已知較高脂肪成分例子：

- 薯條
- 漢堡扒
- 忌廉
- 雪糕
- 其他油炸食物

- Known high fat food items in children's meals :

- French Fries
- Hamburger patties
- Cream
- Ice cream
- Other deep fried foods

## **(III) 飽和脂肪 Saturated Fat**

# 飽和脂肪 Saturated Fat (1)

最低飽和脂肪含量組合:

- 肯德基 - 巴辣香雞翼  
、香熱粟米、飲品  
(1.5克)

Meal with the lowest  
saturated fat level:

- KFC chicken wing,  
corn, drinks (1.5g)

# 飽和脂肪 Saturated Fat (2)

## 最高飽和脂肪含量組合:

- Pizza Express 奶油火腿蝴蝶粉、飲品、迷你卡布奇諾飲品(連一塊餅)、朱古力蛋糕 (24克)
- 飽和脂肪含量偏高
- 11歲男孩每天飽和脂肪最高建議攝取量的 1/3(即7克)的 343%

## Meal with the highest saturated fat level :

- Pizza Express Cream and ham pasta, soft drink, bambinoccino (with biscuit), chocolate fudge cake (24g)
- Total saturated fat level is on the high side
- about 343% of the 1/3 of the maximum recommended daily intake level of saturated fat for a 11 year old boy, i.e. 7g



# 飽和脂肪 Saturated Fat (3)

- 兒童餐當中含有的已知較高飽和脂肪成分例子：
  - 忌廉
  - 肉類和油脂內的動物脂肪
- Known high saturated fat food items in children's meals
  - Cream
  - Animal fats in meat and fats

## **(IV) 反式脂肪 Trans Fat**

# 反式脂肪 Trans fat

## 最高反式脂肪含量組合:

- Ruby Tuesday - Mini burger fries、飲品、朱古力新地 (1.2克)
- 佔11歲男孩每天反式脂肪最高建議攝取量的1/3(即0.87克)的138%

## Meal with the highest trans fat level:

- Ruby Tuesday Mini burger fries, soft drink, chocolate sundae (1.2g)
- About 138% of the 1/3 of the maximum recommended daily intake level of trans fat for a 11 year old boy, i.e. 0.87 g

## (V) 糖 Sugars

# 糖 Sugar (1)

## 最低糖含量組合:

- 肯德基 - 蘑菇飯、原味雞下脾、屈臣氏蒸餾水(0.34克)

## Meal with the lowest sugar level:

- KFC - Mushroom rice, original drumstick, Watson's distilled water (0.34 g)

# 糖 Sugar (2)

## 最高糖含量組合:

➤ 必勝客 - 肉醬意粉兒童餐 (連雞翼、香腸、啫喱)、熱朱古力 (80克)

- 糖含量偏高
- 11歲男孩每天游離糖最高建議攝取量的1/3(即19.7克)的407%

## Meal with the highest sugar level:

➤ Pizza Hut - Spaghetti in meat sauce (with chicken wings, sausages and jelly), hot chocolate (80 g)

- Total sugars level is on the high side
- about 407% of the 1/3 of the maximum recommended daily intake level of free sugars for a 11 year old boy, i.e. 19.7 g

# 糖 Sugar (3)

- 兒童餐當中含有的已知較高糖成分例子：
  - 果汁(例如：紅莓汁)
  - 熱朱古力
  - 朱古力蛋糕
- Known high sugars food items in children's meals
  - Juices (e.g. cranberry juice)
  - Hot chocolate
  - Chocolate fudge cake

## (VI) 鈉 Sodium



# 鈉 Sodium (1)

## 最低鈉含量組合:

- 肯德基 - 巴辣香雞翼、香熱粟米、百事可樂 / 屈臣氏蒸餾水 (220毫克)

## Meal with the lowest sodium level:

- KFC - chicken wing, corn, Watson's distilled water / Pepsi Cola (220 mg)

# 鈉 Sodium (2)

## 最高鈉含量組合:

➤ **Outback Steakhouse -  
迷你型烤肋骨餐(連薯  
條及麵包)、蕃茄汁  
(2500毫克)**

- 鈉含量偏高
- 11歲孩童每天鈉最高建議攝取量的1/3(即633毫克)的395%

Meal with the highest sodium level:

➤ **Outback Steakhouse -  
Kid's ribs meal (with  
fries and bread), tomato  
juice (2500 mg)**

- Total sodium level is on the high side
- about 395% of the 1/3 of the maximum recommended daily intake level of sodium for a 11 year old child, i.e. 633 mg

# 鈉 Sodium (3)

- 兒童餐當中含有的已知較高鈉成分例子：

- 芝士
- 薯條
- 肉製品(例如：肉腸、火腿)
- 醬油及調味料
- 某些蕃茄製品(例如：蕃茄汁飲品)

- Known high sodium food items in children's meals :

- Cheese
- French fries
- Processed meat (e.g. sausages, ham)
- Sauces and condiments
- Certain processed tomato products (e.g. tomato juice)

# 營養素值以%能量計

Nutrient contents in terms of % energy

# 有關3至11歲膳食營養素參考攝入量及建議 DRIs and Recommendations for 3 to 11 years old

年齡	能量需要 (千卡/日) [1]		總脂肪(佔能量的百分比) [1]	經換算後總脂肪建議攝取量 (克/日)		飽和脂肪(佔能量的百分比) [1]	經換算後飽和脂肪建議攝取量 (克/日)		反式脂肪(佔能量的百分比) [1][2]	經換算後反式脂肪建議攝取量 (克/日)		游離糖(佔能量的百分比) [1][3][4]	經換算後游離糖攝取量 (克/日)		鈉 (毫克/日) [1]
年齡	中等活動量 EER		AMDR	少於		AMDR	少於		UL	少於		PNIG	少於		PI
	男	女		男	女		男	女		男	女		男	女	
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註：

除反式脂肪和油離糖外，營養素參考攝入量是根據中國營養學會2013年版中國居民膳食營養素參考攝入量。

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[2] 世界衛生組織在2008年有關反式脂肪攝入量的建議

[3] 游離糖 (free sugar) 是包括食品中添加的糖以及天然存在於蜜糖、糖漿、果汁和濃縮果汁中的糖。部分食物中的糖分可能較難分辨是否添加。

[4] 世界衛生組織在2015年有關游離糖 (free sugar) 攝取量的建議

# 營養素值以%能量計

## Nutrient contents in terms of % energy

- 根據各兒童餐的營養素所佔能量的百分比 (%)\*
- 可以跟相應的膳食營養素參考攝入量比較，是否合符相應的建議比例。
- Based on percent (%) energy\* contributed by individual nutrient in each meals
- Can compare against the corresponding recommendations to see if it meets the recommended ratio

(\*鈉是以毫克計)

(\*Sodium in terms of mg )

# 計算的例子 Example in calculation

- 兒童餐A –  
能量：700 kcal，總脂肪：46g
  - 1g 脂肪提供的能量：9 kcal
  - 計算：
    - 46g總脂肪提供的能量 =  $46 \times 9$  kcal
    - 總脂肪所提供的能量佔兒童餐A的總能量百分比 =  $(46 \times 9 \text{ kcal}) / 700 \text{ kcal}$
  - 該餐約59%的能量是來自脂肪
  - 參考指標 (DRI)：20-30% 的能量來自脂肪
  - 因此，該餐由總脂肪提供的能量的比例(以%計)是高於相關參考指標
- Children meal A –  
Energy: 700 kcal, total fat: 46 g
  - Energy from 1g of fat: 9 kcal
  - Calculation:
    - Energy from 46g of fat =  $46 \times 9 \text{ kcal}$
    - % of total energy contributed by fat =  $(46 \times 9 \text{ kcal}) / 700 \text{ kcal}$
    - About 59% of energy of the meal is from total fat
  - Benchmark (DRI) for total fat: 20 - 30% energy from total fat
  - Therefore, the proportion (%) of energy from total fat is higher than the benchmark for this meal.

# 需要限制攝入的營養素含量較高的兒童餐

## Meals with higher contents of nutrient which need restricted intake

需要限制攝入營養素(以佔能量的百分比計)最高的三款兒童餐

餐廳	食物	總脂肪 (%能量)	飽和脂肪 (%能量)	反式脂肪 (%能量)	糖 (%能量)	鈉(毫克)
北海道牧場餐廳 Hokkaido Farm Restaurant	哈哈笑兒童餐[K2: Egg + sausage + toast + smiles harsh brown + hot Ovatin with mashmellows]	58.9	15.3	0.4	11.7	1000
肯德基 KFC	芝心火腿脆卷+葡撻 (Meal K2)+益力多	51.5	16.8	0.5	18.5	750
	芝心火腿脆卷+葡撻 (Meal K2)+屈臣氏蒸餾水	59.5	19.5	0.6	7.5	730
	巴辣香雞翼+香熱粟米 (Meal K1)+百事可樂	23.7	4.4	0.0	39.8	220
龍鳳冰室 Lung Fung Café	兒童特餐(連白牛)	51.5	9.4	0.2	14.8	820
麥當勞 McDonalds	漢堡包+粒粒粟米杯(細)+熱朱古力	29.6	7.8	1.7	25.9	520
	芝士漢堡包+薯條(細)+熱朱古力	41.3	12.9	1.4	13.0	760
	芝士漢堡包+粒粒粟米杯(細)+熱朱古力	34.6	11.5	1.8	22.9	680
Outback Steakhouse	迷你芝士漢堡包餐+蕃茄汁	41.9	13.3	1.0	5.2	2400
	烤美國芝士三文治餐+蕃茄汁	30.8	9.9	0.3	6.5	2300
	迷你型烤肋骨餐+蕃茄汁	48.7	10.4	0.0	6.1	2500
Pizza Express	奶油火腿蝴蝶粉+蘋果汁+迷你卡布奇諾飲品(連一塊餅)+朱古力蛋糕	44.6	19.5	0.9	17.8	620
	奶油火腿蝴蝶粉+橙汁+迷你卡布奇諾飲品(連一塊餅)+朱古力蛋糕	44.9	19.6	0.9	17.4	610
Ruby Tuesday	Pasta Marinara [in tomato sauce]+Coke+Chocolate Sundae	19.4	8.9	0.0	35.8	260
	Pasta Marinara [in tomato sauce]+Qoo juice drink+Chocolate Sundae	19.1	8.7	0.0	38.2	260
參考指標 Benchmarks:		20-30%	<8%	<1%	<10%	

註：

(i) 兒童餐的營養素最高的三個以紅色顯示

(ii) 營養素值以佔能量的百分比計(鈉除外)



# 總結 Conclusion

- 部分兒童餐一餐的營養素含量已提供超過11歲男童一整日的最高攝入量(例如飽和脂肪、游離糖、鈉等)  
(11歲男童的最高攝入量已是本次研中最高)
- 該等兒童餐中需要限制攝入營養素的分量對兒童來說是高的
- Nutrient contents of certain meals exceed the maximum daily intake (e.g. saturated fat, free sugars, sodium) for 11 year old boys just from consuming a single meal  
(11 year old boys have the highest maximum intake level in this study)
- The amount of nutrients that require restriction in these meals are high for children.

## 總結 Conclusion (2)

- 兒童餐的營養素含量水平差異很大，包括部分同一食肆內不同的兒童餐組合。
- 反映業界從選擇食材、製作方式和分量方面，可能有減低兒童餐中需要限制攝入營養素(如脂肪(油)、鈉(鹽)、糖等)的含量的空間。
- There are large variations in the nutrient contents of children's meals, both within the same restaurant and between different restaurants.
- Reflect the possibility of the trade to reduce the level of fats, sodium (salt) and sugars in children's meals through selection of ingredients, preparation methods and control of portion size.

# 給業界的建議 (1)

## Advice to Trade (1)

- 應留意供應的食物，其營養素含量會對公眾健康構成影響。
- 改良製作過程、轉變配料或食用分量，以減少兒童餐的脂肪(包括飽和脂肪和反式脂肪)、糖和鈉含量。
- 參考食安中心的《降低食物中糖和脂肪含量的業界指引》及《降低食物中鈉含量的業界指引》，
- Be aware of the nutrition content of the food supplied as it has public health implications.
- Through selection of ingredients and preparation methods and control of portion size, the trade can reduce the levels of sodium, sugars and fats (including saturated fat and trans fat) levels in food.
- Can take reference from relevant CFS guidelines

# 給業界的建議 (2)

## Advice to Trade (2)

- 回應顧客的要求，提供“少鹽”、“少汁”或“少糖”的食物。
- 為兒童餐的顧客提供較低鹽和較低糖的選擇，並在餐牌上和點菜時提醒。
- 在菜單、價目表及其他印刷品上為其供應的非預先包裝食物提供營養成分資料，讓顧客作出知情的選擇。
- Provide “less salt”, “less sauce” or “less sugar” versions upon customers’ requests.
- Offer less salt and less sugar options to children’s meals customers through the menu and during ordering.
- Provide nutrition information for non-prepackaged food items on menus, price lists and other printed materials so that customers can make informed choice.

# 詳細內容 Details

[http://www.cfs.gov.hk/tc\\_chi/programme/programme\\_rafs/programme\\_rafs\\_n\\_01\\_18.html](http://www.cfs.gov.hk/tc_chi/programme/programme_rafs/programme_rafs_n_01_18.html)

[http://www.cfs.gov.hk/english/programme/programme\\_rafs/programme\\_rafs\\_n\\_01\\_18.html](http://www.cfs.gov.hk/english/programme/programme_rafs/programme_rafs_n_01_18.html)

謝謝

Thank You