

A closer look at
Nutrition Labelling

CHILDHOOD OBESITY AND NUTRITION LABELLING



食物安全中心
Centre for Food Safety

CHILDHOOD OBESITY

Obesity

has become more and more common in both developed and developing countries, affecting not only adults but also children. According to the Department of Health, 1 in 6 primary school students in Hong Kong was overweight/obese in 1997/98, but the rate has risen to 1 in 5 students in 2006/07. Overweight and obese children are more likely to stay obese into adulthood and to develop chronic diseases such as diabetes, high blood pressure and heart diseases at a younger age. In addition, obese children may have lower self-esteem and poorer body image.

Causes of Childhood Obesity

The fundamental cause of childhood overweight and obesity is an imbalance between energy consumed and energy expended. This may be due to an excessive energy intake from eating too much food and/or frequent intake of sugary and fatty foods as well as fast-food. On the other hand, there may be insufficient energy expenditure due to a sedentary lifestyle such as lack of exercise, watching television and playing computer games as main activities.

ENERGY AND BODY WEIGHT

In general, energy is mainly from fat, protein and carbohydrates in food.

1 gram of fat
= 9 kilocalories

1 gram of protein
= 4 kilocalories

1 gram of carbohydrates
= 4 kilocalories

1 kilocalorie (kcal) = 1 Calorie
≈ 4.2 kilojoules (kJ)

Metabolism in the body converts fat, protein and carbohydrates into energy. The body burns energy for body functions and physical activities. Any unused energy will be stored as fat in the body. In other words, regardless of whether it is fat, protein or carbohydrates, it will be converted into fat in the body if it is not used.

People often focus on fat intake when thinking about weight reduction or maintenance. In fact, one can decrease the energy intake (i.e. cutting energy intake, not just cutting fat intake) and/or increase the activity levels (e.g. exercise, sports).



NUTRITION LABELLING HELPS CHILDREN BEAT THE WEIGHT

From 1st July 2010, nutrition labels on prepackaged food will provide the content information of **energy**, **protein**, **total fat**, **saturated fat**, **trans fat**, **carbohydrates**, **sugars** and **sodium**. Information included in nutrition labels will help overweight/obese children and their carers understand the energy and nutrient content in food, and make healthy choices.

Nutrition Information 營養資料	
Per 100g/ 每100克	
Energy/ 能量	398kcal/ 千卡 (1670kJ/ 千焦)
Protein/ 蛋白質	7.5g/ 克
Total fat/ 總脂肪	2.6g/ 克
- Saturated fat/ 飽和脂肪	0.2g/ 克
- Trans fat/ 反式脂肪	0g/ 克
Carbohydrates/ 碳水化合物	86.1g/ 克
- Sugars/ 糖	4.0g/ 克
Sodium/ 鈉	105mg/ 毫克



The first step towards a healthy body weight is to cut down on foods that are high in energy, fat and/or sugars. Fat provides the largest amount of energy amongst all nutrients, cutting one gram of fat intake means subtracting 9 kcal from a diet. Thus, look for a lower fat version of a food item is a good place to start. Other than fat content, sugars, being "empty-calorie" (i.e. providing energy but with no other nutritional value) should be another nutrient that children need to reduce the intake.

When reading nutrition labels, attention should be paid to the serving size, as portion control is essential for children under weight control. If one eats twice the serving size, the energy and nutrient content will be doubled accordingly.

Nutrition claims on a package are always eye-catching. However, claims on fat and/or sugars may not be a good indicator of the energy content of the product. As weight control is about energy reduction, overweight/obese children and their carers should focus more on claims on energy since they give a better idea of the energy content of the products.

Table 1: Specific Conditions for Nutrient Content Claims in Relation to Energy, Fat and Sugars

<i>Claims</i>	<i>Specific conditions</i>	
	<i>Per 100 g of solid food</i>	<i>Per 100 mL of liquid food</i>
Energy		
Low energy	<ul style="list-style-type: none"> Containing not more than 40 kcal (170 kJ) of energy 	<ul style="list-style-type: none"> Containing not more than 20 kcal (80 kJ) of energy
Energy free	<ul style="list-style-type: none"> Not applicable 	<ul style="list-style-type: none"> Containing not more than 4 kcal (17 kJ) of energy
Fat		
Low fat	<ul style="list-style-type: none"> Containing not more than 3 g of fat 	<ul style="list-style-type: none"> Containing not more than 1.5 g of fat
Fat free	<ul style="list-style-type: none"> Containing not more than 0.5 g of fat 	<ul style="list-style-type: none"> Containing not more than 0.5 g of fat

Sugars	Per 100 g of solid food or Per 100 mL of liquid food
Low sugars	• Containing not more than 5 g of sugars
Sugars free	• Containing not more than 0.5 g of sugars

Regardless of the types of nutrition claim that may appear on the package, they only give a rough idea about the content of a particular nutrient, one should not make a food choice solely on the basis of a nutrition claim. Moreover, very often nutrition claims are made for a specific nutrient only. In order to eat healthily, we should take note of other nutrients as well. For example, a product with a “low sugars” claim may have high fat content. The best practice is to refer to the nutrition label for detailed information.

THREE SIMPLE STEPS TO READ NUTRITION LABEL

STEP 1

TAKE NOTE OF THE REFERENCE AMOUNT OF FOOD BEING USED IN THE NUTRITION LABEL

The nutritional content may be expressed in several ways:

- per 100 g/mL
- per serving
- per package

Comparison should be made basing on the same reference amount, e.g. per 100 g versus per 100 g, per 50-gram serving versus per 50-gram serving, but not per 100 g versus per 50-gram serving.

STEP 2

READ AND COMPARE THE NUTRITIONAL CONTENT

Based on the same reference amount of food, overweight/obese children and their carers can make comparison among the content of energy, total fat and sugars of various products. Then choose the one that is lower in energy, total fat and sugars.

Question 1: Which is a better choice?



Milk Beverage A:

Nutrition Information 營養資料	
Servings Per Package/ 每包裝所含食用分量數目: 1	
Serving Size/ 食用分量: 236mL / 236毫升	
	Per Package/ 每包裝
Energy/ 能量	156kcal/ 千卡
Protein/ 蛋白質	7.8g/ 克
Total fat/ 總脂肪	9.0g/ 克
- Saturated fat/ 飽和脂肪	5.9g/ 克
- Trans fat/ 反式脂肪	0.2g/ 克
Carbohydrates/ 碳水化合物	11g/ 克
- Sugars/ 糖	11g/ 克
Sodium/ 鈉	97mg/ 毫克

Milk Beverage B:

Nutrition Information 營養資料	
Servings Per Package/ 每包裝所含食用分量數目: 1	
Serving Size/ 食用分量: 236mL / 236毫升	
	Per Package/ 每包裝
Energy/ 能量	84kcal/ 千卡
Protein/ 蛋白質	8.5g/ 克
Total fat/ 總脂肪	0.2g/ 克
- Saturated fat/ 飽和脂肪	0.2g/ 克
- Trans fat/ 反式脂肪	0g/ 克
Carbohydrates/ 碳水化合物	12g/ 克
- Sugars/ 糖	12g/ 克
Sodium/ 鈉	104mg/ 毫克

Answer 1: Milk Beverage B is a better choice as it has much less energy and total fat in each package (i.e. 236 mL).

Question 2: Which is a better choice?



Corn Flakes C:

Nutrition Information 營養資料	
Per 100g/ 每100克	
Energy/ 能量	382kcal/ 千卡
Protein/ 蛋白質	8g/ 克
Total fat/ 總脂肪	0.7g/ 克
- Saturated fat/ 飽和脂肪	0.1g/ 克
- Trans fat/ 反式脂肪	0g/ 克
Carbohydrates/ 碳水化合物	86g/ 克
- Sugars/ 糖	8g/ 克
Sodium/ 鈉	800mg/ 毫克

Corn Flakes D:

Nutrition Information 營養資料	
Per 100g/ 每100克	
Energy/ 能量	400kcal/ 千卡
Protein/ 蛋白質	5.3g/ 克
Total fat/ 總脂肪	0.5g/ 克
- Saturated fat/ 飽和脂肪	0.1g/ 克
- Trans fat/ 反式脂肪	0g/ 克
Carbohydrates/ 碳水化合物	93.7g/ 克
- Sugars/ 糖	42g/ 克
Sodium/ 鈉	1100mg/ 毫克

Answer 2:

Corn Flakes C is a better choice as it has much less sugars in each 100 g.

STEP

3

REFER TO THE PERCENTAGE NUTRIENT REFERENCE VALUE (%NRV) (IF AVAILABLE)

%NRV is a relative expression of the nutritional content. It tells you whether there is a lot or a little of a nutrient in the stated amount of food on a scale from 0% to 100%. A high percentage means the food contains a lot of a nutrient whereas a low percentage means it contains just a little. In case the %NRV of energy or those nutrients that should be consumed less (e.g. total fat or sugars) is at the high-end, think twice before making the purchase of that particular food product as it is very likely that the food may contribute a great proportion of your daily allowances of these nutrients.

%NRV may come in different terms in nutrition labels. For example, in Hong Kong, a set of NRV is adopted and the energy and nutrient values may be presented as %Chinese NRV. %Daily Value (%DV) or %Daily Intake (%DI) may be used in other places, and their values may be different from those adopted in Hong Kong.

Question 3: Which is a better choice?

Biscuit E:

Nutrition Information 營養資料		
Servings Per Package/ 每包裝所含食用分量數目: 5		
Serving Size/ 食用分量: 3 pieces (50g) / 3塊(50克)		
	Per Serving/ 每食用分量	%Chinese NRV 每食用分量的 中國營養素 參考值百分比
Energy/ 能量	271kcal/千卡	14%
Protein/ 蛋白質	2.9g/克	5%
Total fat/ 總脂肪	13.8g/克	23%
- Saturated fat/ 飽和脂肪	8.4g/克	42%
- Trans fat/ 反式脂肪	0g/克	
Carbohydrates/ 碳水化合物	33.7g/克	11%
- Sugars/ 糖	21.7g/克	
Sodium/ 鈉	80mg/毫克	4%



Biscuit F:

Nutrition Information 營養資料		
Servings Per Package/ 每包裝所含食用分量數目: 5		
Serving Size/ 食用分量: 3 pieces (50g) / 3塊(50克)		
	Per Serving/ 每食用分量	%Chinese NRV 每食用分量的 中國營養素 參考值百分比
Energy/ 能量	170kcal/千卡	9%
Protein/ 蛋白質	4.7g/克	8%
Total fat/ 總脂肪	1.1g/克	2%
- Saturated fat/ 飽和脂肪	0.2g/克	1%
- Trans fat/ 反式脂肪	0g/克	
Carbohydrates/ 碳水化合物	35.3g/克	12%
- Sugars/ 糖	1.6g/克	
Sodium/ 鈉	90mg/毫克	5%

Most importantly, weight control is more than just eating a healthy diet. It is about energy balance. Children, at their very young age, should start to eat healthily, have regular exercise and establish a healthy lifestyle.

Answer 3:

Biscuit F is a better choice as it has less energy and much less total fat and sugars in each serving (i.e. 50 g).

THIS PAMPHLET IS PREPARED BY THE TASK FORCE ON NUTRITION LABELLING EDUCATION COMPRISING MEMBERS FROM:

- Association of Hong Kong Nursing Staff
- Centre for Health Education and Health Promotion, The Chinese University of Hong Kong
- Committee on Home-School Co-operation
- Consumer Council
- Department of Health
- Education Bureau
- Food and Environmental Hygiene Department
- Hong Kong Dietitians Association
- Hong Kong Nutrition Association
- Hospital Authority
- The Hong Kong Medical Association

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Centre for Food Safety

www.cfs.gov.hk

Central Health Education Unit,
Department of Health

www.cheu.gov.hk/eng/info/index.htm

Student Health Service,
Department of Health

[www.studenthealth.gov.hk/
english/health/health.html](http://www.studenthealth.gov.hk/english/health/health.html)



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