

A closer look at
Nutrition Labelling

HOW TO READ NUTRITION LABEL



食物安全中心
Centre for Food Safety

NUTRITION INFORMATION IS VERY USEFUL FOR US TO MAKE HEALTHY FOOD CHOICE. WE CAN USE THE INFORMATION IN THE FOLLOWING WAYS:

- ➡ To compare nutritional content among different foods for a healthier choice, e.g. to choose food lower in fat, sodium (or salt) and sugars.
- ➡ To understand the nutritional content of food and estimate their contribution to the overall diet.
- ➡ To meet individual's dietary needs.

In order to enjoy the benefits of reading nutrition label, we need to first look at what is inside and how to read them.

HOW DOES NUTRITION LABEL LOOK LIKE?

Nutrition label is a systematic way of presenting nutrition information of food products. It is usually in a tabular format with a heading like “**Nutrition Information**”, “**Nutrition Facts**” or “**Nutrition Label**”. Do turn around food packages to find it, it may look like the one in Figure 1. For small packages, the nutrition label may show the energy and nutrients linearly as in Figure 2.

Nutrition Information 營養資料	
	Per 100g/ 每100克
Energy/ 能量	436kcal/ 千卡 (1831kJ/ 千焦)
Protein/ 蛋白質	11g/ 克
Total fat/ 總脂肪	16g/ 克
- Saturated fat/ 飽和脂肪	7g/ 克
- Trans fat/ 反式脂肪	0g/ 克
Carbohydrates/ 碳水化合物	62g/ 克
- Sugars/ 糖	2g/ 克
Sodium/ 鈉	730mg/ 毫克

Figure 1. Nutrition label of Brand A biscuit in tabular format

Nutrition Information 營養資料 Per 100g/ 每100克
 Energy/ 能量 436kcal/ 千卡 (1831kJ/ 千焦) , Protein/ 蛋白質 11g/ 克 ,
 Total fat/ 總脂肪 16g/ 克 , Saturated fat/ 飽和脂肪 7g/ 克 ,
 Trans fat/ 反式脂肪 0g/ 克 , Carbohydrates/ 碳水化合物 62g/ 克 ,
 Sugars/ 糖 2g/ 克 , Sodium/ 鈉 730mg/ 毫克

Figure 2. Nutrition label in linear format

Nutrition Label/

營養標籤

THREE SIMPLE STEPS TO READ NUTRITION LABEL

STEP

1

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

Energy and nutrient values can be expressed in different reference amounts such as **per 100 g/mL**, **per serving** or **per package**. We need to take note of what the reference amount of food is being used before we can understand the true meaning of these figures.

A) **Per 100 g/mL**

It is a common way of which energy and nutrient values are expressed. Per 100 g is usually for solid food while per 100 mL is usually for liquid food. For example, as shown in Figure 1, 100 g of Brand A biscuit contains 436 kcal (i.e.1831 kJ) of energy, 11 g of protein, 16 g of total fat, and so on.

Nutrition Information 營養資料 **Per 100g/ 每100克**

Energy/ 能量 436kcal/ 千卡 (1831kJ/ 千焦) · Protein/ 蛋白質 11g/ 克 ,

Total fat/ 總脂肪 16g/ 克 , Saturated fat/ 飽和脂肪 7g/ 克 ,

Trans fat/ 反式脂肪 0g/ 克 , Carbohydrates/ 碳水化合物 62g/ 克 ,

Sugars/ 糖 2g/ 克 , Sodium/ 鈉 730mg/ 毫克

B) Per Serving

It reflects the energy and nutrient content of a specified amount (which is called the serving size) of food. Serving size is the amount of food people customarily consume per eating occasion. The serving size is determined by the manufacturer. It is expressed in metric measurements such as gram (g) or millilitre (mL). Sometimes, it may also be expressed in units such as pieces, cups, tablespoons, teaspoons etc. as shown in Figure 3.

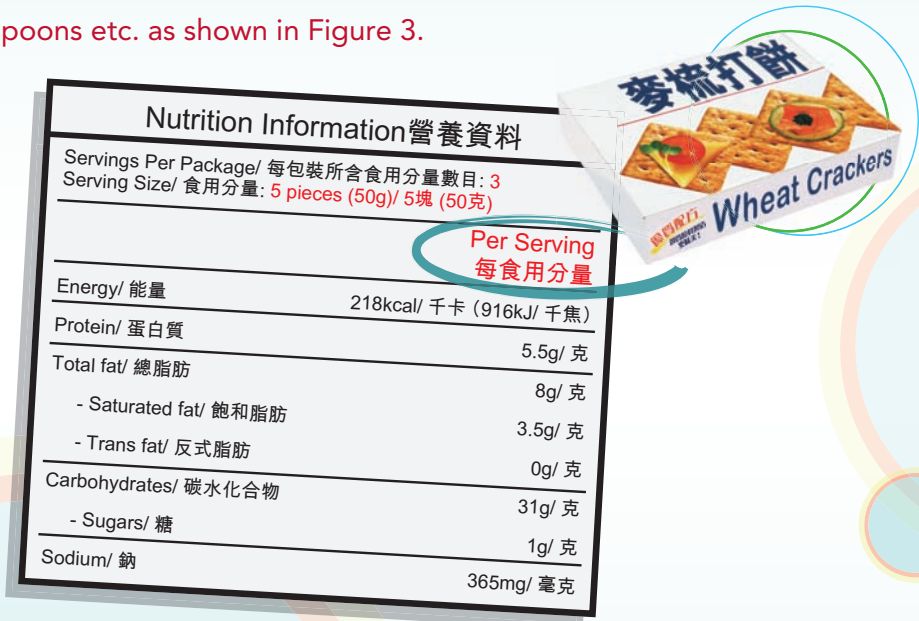


Figure 3. Nutrition label of Brand A biscuit (expressed as per serving)

Besides noting the serving size, you may also find the number of servings in a package. Figure 3 shows that there are three servings of biscuits in a package, each serving consists of 5 pieces and each piece weighs about 10 g on average. The whole package contains 15 pieces of biscuits.

Brand A biscuit



3 servings in a package

Each serving contains 5 pieces of biscuits. Each biscuit weighs about 10 g.

C) Per Package

For package that only contains a single serving of food (for example, a carton of milk beverage as shown in Figure 4), the amount of energy and nutrients may be expressed as per package.

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	158kcal/ 千卡 (664kJ/ 千焦)
Protein/ 蛋白質	7.6g/ 克
Total fat/ 總脂肪	9.2g/ 克
- Saturated fat/ 飽和脂肪	5.7g/ 克
- Trans fat/ 反式脂肪	0.3g/ 克
Carbohydrates/ 碳水化合物	11.3g/ 克
- Sugars/ 糖	11.3g/ 克
Sodium/ 鈉	130mg/ 毫克



Figure 4. Nutrition label of Brand B milk beverage (expressed as per package)

STEP 2

READ THE ENERGY AND NUTRIENT CONTENT TOGETHER WITH THE REFERENCE AMOUNT

Nutrition label lists out the energy content and values of 7 nutrients specified for labelling (“1+7”), namely, protein, total fat, saturated fat, trans fat, carbohydrates, sugars and sodium.

Energy

Read the energy content first because getting too much energy increases the risk of overweight and obesity, leading to increased risk of heart diseases, diabetes and certain types of cancer. The energy content of food can be expressed in kilocalories (kcal) or kilojoules (kJ) (1 kcal \approx 4.2 kJ) or in both. It tells you how much energy you get by eating the reference amount of food. Then look for the amount of the 7 nutrients specified for labelling.

Total fat, Saturated fat, Trans fat and Sugars

In order to maintain heart health and a desirable body weight, try to limit these nutrients (total fat, saturated fat, trans fat and sugars) by choosing food with lower amount. For a 2000-kcal diet, the daily limit should be:

Total fat	\leq 60 g
Saturated fat	\leq 20 g
Trans fat	\leq 2.2 g
Sugars	\leq 50 g

Sodium

Try to limit the intake of sodium to not more than 2000 mg a day. Diet low in sodium is considered healthier.

Sodium

≤ 2000 mg

Protein and Carbohydrates

Try to eat appropriate amounts of protein and carbohydrates for a balanced diet. For a 2000-kcal diet, the daily amount should be around:

Protein

60 g

Carbohydrates

300 g

Other Nutrients

In addition to the 7 nutrients specified for labelling, you may also find information of other nutrients in the nutrition label. Based on your personal dietary needs, make sure you get enough of these nutrients (e.g. dietary fibre, minerals and vitamins), and avoid getting too much of certain nutrients (e.g. cholesterol). For an average adult, try to set the daily amount of about:

Dietary fibre

≥ 25 g

Calcium

≥ 800 mg

Vitamin C

≥ 100 mg

Cholesterol

≤ 300 mg

Reading energy and nutrient content together with the reference amount can help you compare nutritional content of different food products and choose food that is healthier (e.g. lower in fat, lower in sodium, lower in sugars) as well as understanding the amount of energy and nutrients you get from food. Here are some examples:

A) Use Nutrition Label to Compare Between Products

Products with nutritional content expressed in the *same* reference amount

Nutrition Information 營養資料	
Per 100g 每100克	
Carbohydrates/ 碳水化合物	62g/ 克
- Sugars/ 糖	2g/ 克

Figure 5. (Partial) Nutrition label of Brand A biscuit

Nutrition Information 營養資料	
Per 100g 每100克	
Carbohydrates/ 碳水化合物	62g/ 克
- Sugars/ 糖	8g/ 克

Figure 6. (Partial) Nutrition label of Brand C biscuit

If the amount of energy and nutrients of products are expressed in the same reference amount e.g. as per 100 g in Figure 5 and Figure 6, you can compare between them directly. For example, Brand A biscuit contains 2 g of sugars per 100 g whereas Brand C biscuit contains 8 g of sugars per 100 g. You should choose Brand A biscuit if you want to get less sugars.

Products with nutritional content expressed in *different* reference amounts

Nutrition Information 營養資料	
Servings Per Package/ 每包裝所含食用分量數目: 3	
Serving Size/ 食用分量: 5pieces(50g)/5塊(50克)	
Per Serving 每食用分量	
Total fat/ 總脂肪	8g/ 克
- Saturated fat/ 飽和脂肪	3.5g/ 克

Figure 7. (Partial) Nutrition label of Brand A biscuit

Nutrition Information 營養資料	
Servings Per Package/ 每包裝所含食用分量數目: 2	
Serving Size/ 食用分量: 2pieces(35.5g)/2塊(35.5克)	
Per Serving 每食用分量	
Total fat/ 總脂肪	7g/ 克
- Saturated fat/ 飽和脂肪	2.5g/ 克

Figure 8. (Partial) Nutrition label of Brand D biscuit

If the nutritional content of products are expressed in different ways (e.g. one product presents as per serving whereas the other presents as per 100 g) or both products are expressed by per serving but the serving sizes are not the same, you have to do the conversion first to ensure that the reference amounts of food are the same before comparison.

Example

Brand A biscuit

contains 8 g of fat per serving
(i.e. 8 g per 50 g)



Brand D biscuit

contains 7 g of fat per serving
(i.e. 7 g per 35.5 g)



Instead of direct comparison, you need to convert their fat contents basing on the same amount of food first, e.g. 100 g of food.

100 g of Brand A biscuit provides

$$\begin{array}{l} \downarrow \\ \frac{100 \text{ g}}{50 \text{ g}} \times 8 \text{ g of fat} \\ = 16 \text{ g of fat} \end{array}$$

100 g of Brand D biscuit provides

$$\begin{array}{l} \downarrow \\ \frac{100 \text{ g}}{35.5 \text{ g}} \times 7 \text{ g of fat} \\ \approx 20 \text{ g of fat} \end{array}$$

Based on the same amount of food, i.e. 100 g of biscuits, Brand A biscuit provides about 4 g of fat less than Brand D biscuit. You should choose Brand A biscuit if you want to get less fat.

B) Use Nutrition Label to Calculate the Amount of Energy and Nutrients You Get from Food

By understanding the amount of food you actually eat and information in the nutrition label, you can estimate your own energy and nutrient intake from the food. Remember that the more you eat, the more you get.

Example

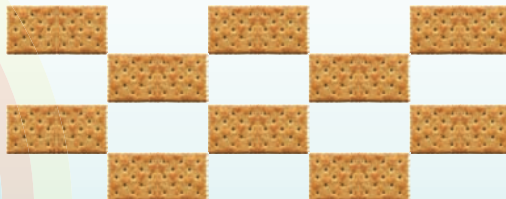
Nutrition Information 營養資料	
Servings Per Package/ 每包裝所含食用分量數目: 3 Serving Size/ 食用分量: 5 pieces (50g)/ 5塊 (50克)	
Per Serving 每食用分量	
Energy/ 能量	218kcal/ 千卡 (916kJ/ 千焦)
Protein/ 蛋白質	5.5g/ 克
Total fat/ 總脂肪	8g/ 克
- Saturated fat/ 飽和脂肪	3.5g/ 克
- Trans fat/ 反式脂肪	0g/ 克
Carbohydrates/ 碳水化合物	31g/ 克
- Sugars/ 糖	1g/ 克
Sodium/ 鈉	365mg/ 毫克

If you eat 1 serving of
Brand A biscuit



i.e. 5 pieces of biscuit, you will get exactly the same amount of energy and nutrients as stated in the label, **218 kcal of energy** and **8 g of fat**, and so on.

If you eat 2 servings of
Brand A biscuit



i.e. 10 pieces of biscuit, you double your energy and nutrients intake and get **436 kcal of energy** and **16 g of fat**, and so on.



On the contrary, if you only eat 1 piece (i.e. 1/5 serving) of Brand A biscuit, you will just get 1/5 of the above energy and nutrient content, i.e. 44 kcal of energy (218 kcal/5) and 1.6 g of fat (8 g/5), and so on.

If the energy and nutrient content is expressed as per 100 g/mL, you can similarly estimate your own intake by simple calculation.

Example



..... 100 mL
—— 200 mL
—— 300 mL
—— 400 mL
—— 500 mL

If you drink 100 mL of this yogurt drink, you will get 1 g of protein.



..... 100 mL
..... 200 mL
..... 300 mL
..... 400 mL
..... 500 mL

If you drink the whole bottle (i.e. 500 mL), you will get 5 g (1 g X 5) of protein.

STEP

3

REFER TO THE PERCENTAGE NUTRIENT REFERENCE VALUE (%NRV), IF AVAILABLE, TO SEE IF THE FOOD CONTAINS A LOT OR A LITTLE OF ENERGY OR A NUTRIENT IN THE FOOD

In addition to showing the exact amount of energy and nutrients, the energy and nutrient values may also be voluntarily expressed in a relative presentation (i.e. the percentage of a reference value which is called the nutrient reference value). The %NRV is usually on a scale from 0% to 100%.

NRVs are derived for nutrition labelling purposes. In Hong Kong, there is a set of NRVs (Please refer to Annex for details) which is based on a 2000-kcal diet and is derived from recommended intake levels of various nutrients for a healthy diet. Therefore, they can be used as a general reference for daily nutrient intake or limit. Food manufacturers may call it the Chinese NRV.

As food products available in Hong Kong may be imported from overseas countries, these products may use different reference values, such as Daily Value (DV) adopted in the United States and Canada, or Daily Intake (DI) in Australia.

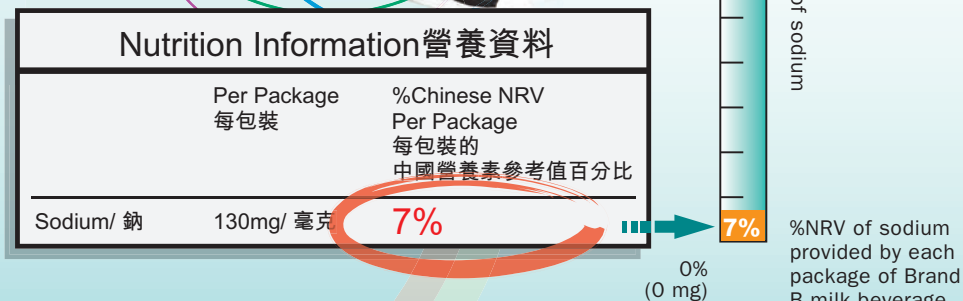


Figure 9 (Partial) Nutrition label of Brand B milk beverage

A high %NRV means the food contains a lot of a nutrient whereas a low %NRV means it contains just a little. A general and simple rule is to look for foods that have lower %NRV for nutrients that you need to limit e.g. total fat, saturated fat, sodium and sugars, and higher %NRV for nutrients that are good for your health e.g. dietary fibre.



Whenever using the information on nutrition labels, besides referring to the percentage, the best practice is to check the actual nutritional content whenever they are available to get a nutritional overview of the product and make healthy food choices.

Prepackaged food only contributes a proportion of the overall diet. To eat healthily, one should always follow the healthy eating principle, i.e. a balanced diet with variety, and practise the “3Low 1High” recommendation, i.e. low fat, low salt (sodium), low sugars and high fibre.



Annex

Chinese Nutrient Reference Values

<i>Energy or Nutrients</i>	<i>Chinese Nutrient Reference Value</i>
Energy (kcal)	2000
(kJ)	8400
Protein (g)	60
Total fat (g)	60
Dietary fibre (g)	25
Saturated fatty acids (g)	20
Cholesterol (mg)	300
Carbohydrates (g)	300
Calcium (mg)	800
Phosphorus (mg)	700
Potassium (mg)	2000
Sodium (mg)	2000
Iron (mg)	15
Zinc (mg)	15
Copper (mg)	1.5
Iodine (μg)	150
Selenium (μg)	50
Magnesium (mg)	300



Annex

Chinese Nutrient Reference Values

<i>Energy or Nutrients</i>	<i>Chinese Nutrient Reference Value</i>
Manganese (mg)	3
Chromium (μg)	50
Molybdenum (μg)	40
Fluoride (mg)	1
Vitamin A (μg RE)	800
Vitamin C (mg)	100
Vitamin D (μg)	5
Vitamin E (mg α -TE)	14
Vitamin K (μg)	80
Vitamin B1 (mg)	1.4
Vitamin B2 (mg)	1.4
Vitamin B6 (mg)	1.4
Vitamin B12 (μg)	2.4
Niacin (mg)	14
Folic acid (μg DFE)	400
Pantothenic acid (mg)	5
Biotin (μg)	30
Choline (mg)	450

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

An electronic copy of this publication is available on the website of the Centre for Food Safety
www.cfs.gov.hk

Members of the public may obtain this publication at
Communication Resource Unit
Centre for Food Safety
8/F, Fa Yuen Street
Municipal Services Building,
123A Fa Yuen Street,
Mong Kok, Kowloon.

Turn and look for healthier food choices

Want to Learn More?

Check out the website of the Centre for Food Safety

www.cfs.gov.hk



食物環境衛生署
**Food and Environmental
Hygiene Department**