

How to read food labels

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Knowing how to interpret the information contained on food labels allows consumers to make informed choices.

A healthy lifestyle is the cornerstone of self-management in many chronic diseases. Long lasting changes in lifestyle are, however, often difficult to make. Changing to a healthier diet may be made more difficult by conflicting messages given about foods by the media, the supermarkets and even food packaging.

In December 2002, changes increasing the amount of information on food labelling were introduced in Australia, under the Australia New Zealand Food Standards Code, developed by the Food Standards Australia and New Zealand (FSANZ).¹ The aim of these changes was to help consumers make informed choices from the vast array of foods now available, although some consumers have found the labelling more confusing than helpful (Figure 1).

This article discusses how to read food labels and provides a simple guide to help people make healthy food choices.

What's on a label?

Ingredients

Virtually all packaged foods must have on their packaging a list of ingredients in descending order of quantity. The percentage of key ingredients is also listed (e.g. the percentage of strawberries in strawberry jam).

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Nutrition information panel

Before 2002, nutrition labelling was compulsory only where a food made a nutrition claim (such as 'low salt') or was designed for a special purpose (such as infant formula or sports foods). Under the current laws, nearly all manufactured foods carry a nutrition information panel.

A nutrition information panel shows the energy content (in kilojoules and optionally in calories) and main nutrients per serve and per 100 g of the product. It also shows the number of servings per package and the serving size in grams (see below).



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Figure 1. Reading food labels can help in the choosing of healthier foods.

Nutrition information panel

The nutrition panel on a food label shows the energy content (in kilojoules and optionally in calories), the main nutrients per serve and per 100 g of the product, and the number of servings per package and the average serving size in grams.

Nutrition Information			
Servings per package: 2			
Serving size: 125 g			
	Per serve	Per 100 g	
Energy	560 kJ	447 kJ	
	134 cal	107 cal	
Protein	14.1 g	11.3 g	
Fat			
	- total	6.8 g	5.4 g
	- saturated	4.4 g	3.5 g
Carbohydrate			
	- total	3.3 g	2.6 g
	- sugars	3.1 g	2.5 g
Sodium	524 mg	419 mg	
Calcium	75 mg (9% RDI)	60 mg	

An example of a nutrition information panel (for cottage cheese).



Figure 2. Foods displaying the Heart Foundation Tick have been independently tested to ensure they are a healthier choice.

Nutrients that must be included are protein, fat (total and saturated), carbohydrate (total and sugars) and sodium. Other nutrients that are mentioned in marketing claims must also be listed in the panel, for example dietary fibre. Information relating to the percentage daily intake of nutrients (based on an average adult diet of 8700 kJ) is a voluntary inclusion.

The 'per 100 g' column is useful for comparing different products. The 'per serve' column can be misleading because manufacturers' serve sizes might not be the same as the consumers' serve sizes and often vary significantly between brands.

Foods that are not required to bear a nutrition panel include fresh fruit and vegetables, foods not sold packaged, foods contained within small packages (surface area less than 100 cm²), single ingredient foods and food made and packaged on the premises from which it is sold.

Date marking

Foods that should be eaten before a certain time for safety reasons are marked with a 'use by' date. These foods should not be sold or eaten after this date.

Most other foods are marked with a 'best before' date. After this date these foods lose some quality. These foods can be sold after the 'best before' date provided the food is fit for human consumption. Foods that do not have to display a date include those that have a 'best before' date of two years or more and individual portions of ice cream and confectionary.

Warnings, advisory statements and declarations

A warning statement must appear on the label or be displayed in connection with the food where royal jelly is presented as a food or as an ingredient. This should state that royal jelly has been reported to cause severe, sometimes fatal, allergic reactions, especially in people suffering from asthma or allergies.

Where a food contains a substance that presents a risk that may not be obvious to the consumer, an advisory statement is required on the food label or to be displayed in connection with the food. Examples of such substances are aspartame, quinine and added caffeine.

A declaration is required on the label or to be displayed in connection with the food where a food, food ingredient or component of an ingredient can cause severe adverse reactions in some individuals, however small the amount. Examples include peanuts, tree nuts, sesame seeds, seafood, fish, milk, gluten-containing cereals, eggs and soybeans. The involvement in a food's manufacture of any equipment that is also used in the processing of these potential allergens must also be declared.

Food additives

Additives are substances added to food but not normally consumed as foods by themselves. Many substances used as additives also occur naturally, such as vitamin C (ascorbic acid) in fruits and vegetables. Additives are used in processed foods in relatively small amounts for a variety of reasons, including restoring or improving taste or appearance, improving keeping quality and preservation. They should be listed on the package with a name or function and a number – e.g. ascorbic acid (300), citric acid (330), antioxidants (300, 330), sodium metabisulphite (223), preservative (223). Although food additives and preservatives are rigorously tested in Australia before being permitted in food products, some people (less than 5% of the population) do react adversely

to them. More information on food additives, including a list of the code numbers, is available on the FSANZ website (www.foodstandards.gov.au).

Genetically modified foods

Plant and animal breeders have sought to modify or improve quality, yield and taste characteristics of produce for hundreds of years through crossbreeding. Genetic modification is a relatively new method for doing this. Wherever a genetically modified (GM) ingredient, additive or processing aid is present in the final food, the food must be labelled 'genetically modified'. More information on GM foods is available on the FSANZ website.

The Heart Foundation Tick

Foods displaying the Heart Foundation Tick have been independently tested to ensure they are a healthier choice (Figure 2).² These foods have met the nutrition standards set by the National Heart Foundation Australia for combinations of saturated fat, trans fat, sodium, kilojoules, fibre, protein and calcium. These standards will vary with the food category. Foods with the Tick must also meet strict labelling requirements. Because the Heart Foundation is a nonprofit organisation, manufacturers who earn the Tick are charged a license fee to participate in the Tick Program.

While the Tick is a good guide to healthier food choices, it is advisable to check the food's nutrition panel as well.

The GI symbol

The glycaemic index (GI) is a ranking of carbohydrate foods from 0 to 100 that reflects the glycaemic potential of the food.³ A GI of 70 or more is considered high (i.e. blood glucose levels are raised dramatically), a GI of 56 to 69 is medium, and a GI of 55 or less is low. Eating low GI foods can help patients with diabetes control postprandial hyperglycaemia. They can also help with weight loss and appetite control.

Foods displaying the 'G spot' have been GI tested at an accredited laboratory using the Australian standard and meet the strict nutrition criteria set by the GI Symbol Program (Figure 3). This program is a nonprofit public health initiative led by the University of Sydney and also involving Diabetes Australia and the Juvenile Diabetes Research Foundation.

The food's GI range and sometimes the actual GI value will appear on the label near the nutrition panel. In line with the dietary guidelines for Australians, foods in the GI Symbol Program must also meet specific, category-based nutritional criteria for kilojoules, total and saturated fat, sodium and, where appropriate, fibre and calcium. Similar to the Heart Foundation Tick symbol, the GI symbol is part of a licensing program where manufacturers pay to display it, so not all low GI foods will carry the GI symbol.

Foods that make low GI claims but do not carry the GI symbol are not necessarily healthy or unhealthy choices. Consideration needs to be made of other nutritional factors, such as the fat content of the product.⁴

Other information

Food labels will also display the suppliers' names and their Australian/New Zealand business addresses, the lot identification (in most cases), any particular storage requirements and the country of origin. When 'Product of' is displayed, the country of origin claimed must be the country of origin of each ingredient and all, or virtually all, the processes of manufacture of the goods must have happened in that country. When 'Made in' is displayed, the goods must have been substantially transformed in the country claimed to be the origin and 50% of the costs of production must have been carried out in that country.

What to look for?

The nutrient content of the food

When choosing foods, consumers should look at each food's nutrition information



Figure 3. Foods displaying the 'G spot' have been tested at an approved GI testing laboratory and meet the strict nutrition criteria set by the GI Symbol Program.

panel for the amounts of kilojoules, fat, saturated fat, sugars and sodium (salt) within that food. Healthy food choices are those that are:

- low in total, saturated and trans fats
- low in added sugars
- low in sodium
- high in fibre.

Consumption of a range of foods should supply adequate protein for most people and therefore a guideline for protein content is not important in choosing healthy foods.

There is currently no national guideline for reading labels. The guidelines included here are those used by the Diabetes Centre at the Queen Elizabeth Hospital, Adelaide, SA.

A guide to choosing healthy foods on the basis of the information given in each food's nutrition panel is given in the Table. The patient handout on page 65 and 66 contains guides to reading labels that can be used to help select healthy foods when shopping. Choosing healthy foods in the supermarket that meet all the above guidelines can be both time consuming and difficult, and consumers should be encouraged to exercise their own discretion when making food choices and choose foods that best meet the guidelines.

Total, saturated and trans fats

Intakes of saturated fats and trans fats should be limited.⁵ Saturated fats can increase LDL cholesterol and the risk of

Table. Reading food label nutrient panels: healthy food choices*

Fat

Total fat

Low is best, i.e. less than 10 g per 100 g[†]
For milk and yoghurt, aim for less than 2 g per 100 g
Oils and margarines are all high in total fat; choose poly- and monounsaturated varieties

Saturated fats

As low as possible is best

Trans fats

As low as possible is best
For margarines, aim for less than 1 g per 100 g

Carbohydrate

Sugars

Low added sugar is best but added sugar is not itemised on nutrition panels
Aim for less than 10 g sugar (natural plus added) per 100 g[‡]
For foods containing fruit, aim for less than 25 g per 100 g

Dietary fibre

High is best, i.e. above 5 g per 100 g for breads and cereals (the recommended daily intake is 30 g per 100 g)

Sodium

Low is best, i.e. less than 120 mg per 100 g
Otherwise, aim for less than 400 mg per 100 g
Look for 'No added salt', 'Salt reduced' and 'Low salt' labels

Protein

Consumption of a range of foods should supply adequate protein for most people.

* There is currently no national guideline for reading labels. The guidelines included here are those used by the Diabetes Centre at the Queen Elizabeth Hospital, Adelaide, SA.

[†] There are FSANZ labelling requirements that relate to low fat foods having a fat content of <3%. However, the authors believe that only including those foods would limit choices unnecessarily.

[‡] This guideline for sugar may exclude some non-fruit based low fat yoghurts, yet they may still be considered a healthy choice.

heart disease. Consumers should compare products and choose those with the lowest amounts of total fat and saturated fats.

Trans fats increase LDL cholesterol in much the same way as saturated fats, and can also lower HDL cholesterol. Trans fats are created by the process of hydrogenation that is used by food manufacturers to improve the stability of vegetable oils and to convert liquid oils into solid forms. Although data are scarce, it is currently believed that Australians do not have a very high trans fat intake, unlike North Americans. Trans fats are found mainly in deep-fried fast foods and processed foods made with some margarines or shortening. They also occur naturally in the rumen of cows and sheep, so beef, lamb and dairy foods also contain small amounts of trans fats. The amount of trans fats must be listed on the food label when a claim is being made about the fatty acid content of the food (e.g. it is high in omega-3 fatty acids). Otherwise, the displaying of the trans fat content is optional.

All margarines and oils are high in total fat. Mono and polyunsaturated margarines and oils should be sought, and margarines with less than 1% trans fats chosen where possible. Margarines displaying the Tick are a good choice.

Low in added sugars

The total carbohydrate of a food is the sum of the sugars and starch. Sugar may be a natural part of ingredients (such as fructose in fruit, and lactose in milk or milk products), but extra sugar is often added to processed foods, particularly in the form of sucrose (table sugar) or glucose. Consumers can be advised that avoiding all sugar is not only impossible but also unnecessary.⁶ However, foods that are lower in added sugars are generally healthier choices (e.g. wholegrain bread, oats, fruits, vegetables and low fat milk). Foods containing large amounts of added sugars (e.g. chocolates, cakes, sweet biscuits, soft drinks and lollies) have little nutritional value and can be energy dense.

The sugar entry in a nutritional panel shows the total amount of sugars – that is, added and natural. The ingredients list can help in deciphering the source of sugar.

Low in sodium (salt)

Salt (sodium chloride) is listed on the nutrition panel as sodium. In both normotensive and hypertensive individuals, a reduction in sodium intake can lower blood pressure.⁶ On average, less than 25% of an individual's sodium intake comes from salt added while preparing the food or at the table. The rest is hidden in processed foods that have had salt or other sodium containing ingredients added during their manufacture. As sodium must now be listed on the nutrition panel, consumers are able to compare products and choose those lower in sodium.

High in fibre

All Australians are advised to follow a high fibre diet.⁵ The benefits of fibre are varied and include bowel regularity, protection against bowel cancer, improved glycaemia in diabetes, cholesterol reduction and appetite/weight control. Fruit and vegetables are naturally good sources of dietary fibre. For breads, cereals and other products containing fibre, a content of more than 5% dietary fibre should be aimed for whenever possible.

Hidden fats, added sugars, hidden sodium

Consumers should look at the ingredients list to search for sources of excess total and saturated fats, added sugars, and salt and other sodium containing compounds. This may not always be easy since the ingredients may be listed by a name that is unfamiliar. Hidden fats include shortening, lard, tallow, coconut oil and palm oil. Added sugars include glucose, sucrose, syrups, molasses and modified carbohydrate. Hidden sodium includes mono-sodium glutamate (MSG), meat/vegetable

extract, baking powder, sodium bicarbonate and stock cubes.

Summary

Knowing how to read food labels and interpret the information enables people to make healthier choices regarding the food they eat. The key points in reading labels are:

- check the nutrition information panel for amounts of fats (total, saturated and trans), sugars, sodium and fibre
- compare products 'per 100 g'
- as the ingredients list is in decreasing order of quantity, look for products where sources of fats and sugar are lower on the list
- become familiar with hidden fats (particularly saturated fats), added sugars and hidden sodium (mainly as salt).

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