

Nutrition Information

User Guide

to

Standard 1.2.8 - Nutrition Information Requirements

Part A – Prescribed Nutrition Information

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Contents

Back	ground	. 3			
Purp	ose	. 4			
Othe	r standards referring to nutrition labelling	. 4			
Stand	dard 1.2.8 in brief	. 4			
1.	Foods which must carry a nutrition information panel	. 6			
1.1	Food for retail sale				
1.2	Food for catering purposes				
1.3	Food not for retail sale etc	/			
2.	Foods exempt from carrying a nutrition information panel				
2.1	Foods for retail sale				
2.2 2.3	Foods exempt from including a nutrition information panel on their labels Small packages				
2.3	Siliali packages	9			
3.	Nutrition information panels	10			
3.1	What information should be in the nutrition information panel?	10			
3.2	How should it be presented?	11			
3.3	What values should be used in the nutrition information panel?				
3.4	How to determine the values for a nutrition information panel				
3.5 3.6	How to declare the values To how many significant figures should the values be declared to?				
3.7	What is a serving?				
3.8	How should the servings per package be expressed?	14			
3.9	How should the serving size be expressed?	14			
3.10	Foods that the consumer prepares before consumption				
3.11	Common Mistakes	15			
4.	Requirements when giving percentage daily intake information	17			
4.1	What is percentage Daily Intake (%DI)?	17			
4.2	How to calculate the %DI values				
4.3	What information must be provided?	17			
5.	Nutrition information panels where a nutrition claim is made	19			
Wher	e can I get more information?	20			
Attac	hment 1 – Definitions for nutrition labelling	21			
Attac	hment 2 – Deriving Food Composition Data	24			
Attac	hment 3 – Reference values for percentage of daily intake (%DI)	28			
Attac	attachment 4 – Energy factors in relation to food components29				

Background

Food Standards in Australia and New Zealand

The Australian and New Zealand food standards system is governed by legislation in the states, territories, New Zealand, and the Commonwealth of Australia; including the *Food Standards Australia New Zealand Act 1991* (the FSANZ Act).

The FSANZ Act sets out how food regulatory measures are developed. It created FSANZ as the agency responsible for developing and maintaining the *Australia New Zealand Food Standards Code* (the Code).

Responsibility for enforcing the Code in Australia rests with authorities in the states and territories; the Commonwealth Department of Agriculture, Fisheries and Forestry for imported food; and with the Ministry of Agriculture and Forestry in New Zealand.

Responsibility of food businesses

This User Guide is not a legally binding document. It is designed to help interested parties understand or interpret provisions in the Code.

While this User Guide reflects the views of FSANZ, it cannot be relied upon as stating the law. The views of FSANZ may change when, for example, courts determine cases; or government regulations are made or changed. Ultimately, interpretation of the law will always be up to the courts.

Food businesses should obtain legal advice to ensure they are aware of developments in the law and any implications of such developments.

As well as complying with food standards requirements, food businesses must also continue to comply with other legislation.

In Australia, this legislation includes the *Competition and Consumer Act 2010*; the *Imported Food Control Act 1992*; and state and territory fair trading Acts and food Acts.

In New Zealand, this legislation includes the Food Act 1981 and Fair Trading Act 1986.

Disclaimer

FSANZ disclaims any liability for any loss or injury directly or indirectly sustained by any person as a result of any reliance upon (including reading or using) this guide. Any person relying on this guide should seek independent legal advice in relation to any queries they may have regarding obligations imposed under the standards in the *Australia New Zealand Food Standards Code*.

Purpose

The purpose of this User Guide is to help food businesses, enforcement officers and other users interpret the provisions set out in Standard 1.2.8 – Nutrition Information Requirements. There are two parts to the Nutrition Information User Guide. This part – Part A explains when nutrition information is required and the way in which it must be presented. Part B outlines the requirements in the Code for nutrition claims.

Other standards referring to nutrition labelling

The following standards also have provisions relevant to nutrition labelling:

- Standard 1.2.1 Application of Labelling and Other Information Requirements sets out general labelling and information requirements, and exemptions to these requirements, and defines small packages.
- Standard 1.3.2 Vitamins and Minerals sets out the labelling requirements for when claims are made about the vitamin and mineral content of a food.
- Standard 2.2.1 Meat and Meat Products sets out mandatory fat declaration where a reference is made to the fat content of minced meat.
- Standard 2.6.2 Non-alcoholic Beverages and Brewed Soft Drinks has a clause that sets out requirements for claims in relation to the tonicity (e.g. *isotonic*) of electrolyte drinks.
- Standard 2.9.1 Infant Formula Products includes specific nutrition labelling requirements that apply to infant formula products.
- Standard 2.9.2 Foods for Infants includes specific nutrition labelling requirements of foods intended and/or represented for use as food for infants.
- Standard 2.9.3 Formulated Meal Replacements and Formulated Supplementary Foods includes nutrition labelling requirements that apply to formulated meal replacements and formulated supplementary foods.
- Standard 2.9.4 Formulated Supplementary Sports Foods includes requirements for when a nutrition claim is made about the vitamin and mineral content and other ingredients of these foods.
- Standard 2.10.2 Salt and Salt Products includes requirements for labelling of reduced sodium salt mixtures and salt substitutes.

Standard 1.2.8 in brief

A nutrition information panel is required for many foods. How and when the nutrition information panel should be provided depends on the purpose of the food (refer to section 1 of this part of the User Guide).

Some foods are exempt from including a nutrition information panel on a label (refer to section 2 of this part of the User Guide).

Irrespective of the exemptions, where a nutrition claim is made about a food, a nutrition information panel must be provided (see Part B of the User Guide).

Energy, protein, fat, saturated fat, carbohydrate, sugars and sodium content must be included in the nutrition information panel (refer to section 3 of this part of the User Guide). If a nutrition claim is made about other nutrients or a biologically active substance, information about these must also be included in the nutrition information panel (refer to section 3 of this part of the User Guide).

¹ Biologically active substance is defined in clause 1 of Standard 1.2.8 and means a substance, other than a nutrient, with which health effects are associated.

Foods which must carry a nutrition information panel

A nutrition information panel must be provided for most foods. How and when this information must be provided depends on the purpose of the food, that is, whether the food is designated for retail sale or catering purposes or whether it is food that is not for retail sale, not for catering purposes or not supplied for intra company transfer.

Code Definitions

Standard 1.2.1 - Application of Labelling and other Information Requirements

Food for Retail Sale

means food for sale to the public and includes food prior to retail sale which is -

- (a) manufactured or otherwise prepared, or distributed, transported or stored; and
- (b) not intended for further processing, packaging or labelling.

Food for catering purposes

includes food supplied to catering establishments, restaurants, canteens, schools, hospitals, and institutions where food is prepared or offered for immediate consumption.

Intra company transfer

means a transfer of food between elements of a single company, between subsidiaries of a parent company or between subsidiaries of a parent company and the parent company.

1.1 Food for retail sale

If you sell a food for retail sale and none of the exemptions in either subclause 2(1) of Standard 1.2.1, or clause 3 of Standard 1.2.8 (as specified in section 2 of this part of the User Guide) apply, then you must provide a nutrition information panel (unless the food is in a small package – refer to section 2.3 of this part of the User Guide). Where an exemption applies, a nutrition information panel is only required when a nutrition claim is made.

Code reference

Subclause 2(1) of Standard 1.2.1 provides that certain foods for retail sale are exempt from bearing a label with all the prescribed information in the Code.

1.2 Food for catering purposes

For food for catering purposes, which is packaged and does not meet any of the exemptions in clause 3 of Standard 1.2.8 (see section 2 of this part of the User Guide), a nutrition information panel must be provided either on the label or in documentation (subclause 6(1) of Standard 1.2.1). The information must be provided in the prescribed format unless otherwise prescribed in the Code (see section 3 of this part of the User Guide).

Where an exemption applies, nutrition information is only required when a nutrition claim is made. As above, the nutrition information can be provided on the label or in documentation.

In addition, if a purchaser or relevant authority requests, food for catering purposes may need to be accompanied by sufficient information to enable the purchaser to comply with compositional, labelling or other declaration requirements in the Code (subclause 6(4) of Standard 1.2.1).

Code reference

Clause 6 of Standard 1.2.1 sets out the requirements for provision of nutrition information for foods for catering purposes.

1.3 Food not for retail sale etc

A food that is a *food not for retail sale etc* is a food that is not for retail sale, not for catering purposes and not supplied for intra company transfer. In relation to such food, you must provide the purchaser or relevant authority with sufficient information about the food to enable the purchaser to comply with the nutrition information requirements in the Code if they request it (see subclause 4(1) of Standard 1.2.1). This information must be supplied in writing if so requested (subclause 4(2) of Standard 1.2.1). For example, if you supply a cream cheese to a company and they ask you to provide them, in writing, with the energy, protein, fat, saturated fat, carbohydrate, sugars and sodium content for the cream cheese, then you are required to do so.

Code reference

Clause 4 of Standard 1.2.1 sets out general information requirements for food not for retail sale etc.

Other User Guides

For further information on the application of labelling and information requirements outlined in sections 1.1, 1.2 and 1.3 above, refer to the User Guide titled 'Overview and Application of Food Labelling and Information Requirements'.

2. Foods exempt from carrying a nutrition information panel

2.1 Foods for retail sale

Foods for retail sale (as defined in Standard 1.2.1) must bear a label setting out all the information prescribed in the Code, except for foods listed in paragraphs 2(1)(a) to (h) of Standard 1.2.1. The label on a package of food must include a nutrition information panel, except where the food is one of the types of food listed in clause 3 of Standard 1.2.8 (see also section 2.2 below).

In any case, if a nutrition claim is made in relation to a food, clause 4 of Standard 1.2.8 requires that a nutrition information panel must be provided.

Where a food does not need to bear a label setting out all the information prescribed in the Code, including a nutrition information panel, food businesses can still provide this information voluntarily but it must be in the format prescribed in Standard 1.2.8. This is because the voluntary provision of nutrition information could constitute a 'nutrition claim'. If a nutrition claim is made, a nutrition information panel must be provided (clause 4 of Standard 1.2.8) in the prescribed form.

Code reference

Subclause 2(1) of Standard 1.2.1 states that food for retail sale must bear a label setting out all the information prescribed in the Code, except for the food listed in paragraphs 2(1)(a)-(h). However subclause 2(2) of Standard 1.2.1 requires that the listed foods still comply with the requirements in subclauses 4(2) and 4(3) of Standard 1.2.8.

Other User Guides

For further information about the requirements for foods for retail sale, refer to the User Guide titled 'Overview and Application of Food Labelling and Information Requirements'.

2.2 Foods exempt from including a nutrition information panel on their labels

The following foods for retail sale and catering purposes are exempt from providing a nutrition information panel unless a nutrition claim is made (see clause 3 of Standard 1.2.8):

- prepared filled rolls, sandwiches, bagels and similar products
- fruit, vegetables, meat, poultry, and fish that comprise a single ingredient or category of ingredients
- jam setting compound
- gelatine (defined in Standard 1.1.2)
- a herb, spice, and herbal infusion
- tea, decaffeinated tea, decaffeinated instant or soluble tea, instant or soluble tea, coffee, decaffeinated coffee, decaffeinated instant or soluble coffee, instant or soluble coffee (defined in Standard 1.1.2)
- food in a small package (a small package is defined in Standard 1.2.1 and means a package with a surface area of less than 100 cm²)
- food additives (for the purposes of Standard 1.3.1)
- processing aids (defined in Standard 1.3.3)

- water, or mineral water or spring water (defined in Standard 2.6.2)
- kava (standardised in Standard 2.6.3)
- alcoholic beverages (standardised in Standards 2.7.2 to 2.7.5)
- beverages containing no less than 0.5% alcohol by volume that are not standardised in Standards 2.7.2 to 2.7.5
- a kit which is intended to be used to produce an alcoholic beverage standardised in Standards 2.7.2 to 2.7.5
- vinegar and related products (defined in Standard 2.10.1)
- salt and salt products (defined in Standard 2.10.2).

It is important to note that a food that is made of a combination of exempt foods may not be exempt from the requirement to carry a nutrition information panel. For example, a package of meat coated with herbs and spices may be required to carry a nutrition information panel. When an exempt food is part of a mixed food, the contribution of the exempt food is still taken into account in determining the values in the nutrition information panel on the mixed food. For example, the apple in apple crumble would need to be taken into account in the final values in the nutrition information panel, even though the apple sold on its own would be exempt from carrying a nutrition information panel.

Code references

Clause 3 of Standard 1.2.8 lists foods exempt from nutrition information requirements.

Clause 4 of Standard 1.2.8 outlines the requirements for providing nutrition information panels when nutrition claims are made on foods normally exempt from including a nutrition information panel on the label.

2.3 Small packages

A small package is defined in Standard 1.2.1 and means a package with a surface area of less than 100 cm².

Small packages are exempt from including a nutrition information panel on the label. However, when you make a nutrition claim about a food in a small package, certain information must be included on the package's label.

For further information, refer to Part B of the User Guide to Standard 1.2.8.

Nutrition information panels 3.

3.1 What information should be in the nutrition information panel?

The average amount of the following:

- energy content (expressed in kilojoules or in both kilojoules and calories (kilocalories))
- protein
- fat
- saturated fat
- carbohydrate
- sugars
- sodium² (expressed in milligrams; or both milligrams and millimoles), and
- any other nutrient or biologically active substance³ about which a nutrition claim is made,

must be declared per serving and per 100 g or 100 ml of the food (see subclause 5(1) of Standard 1.2.8 which sets out the types of information that must be included on a nutrition information panel).

Some of the above terms are explained in Attachment 1 of this part of the User Guide.

A nutrition information panel must also include the average quantity of food in a serving and the number of servings of the food in the package expressed as either:

- the number of servings of the food, or
- where the weight or volume of the packaged foods is variable, the number of servings of the food per kg, or other units as appropriate.

The word 'slice', 'pack', or 'package' may replace the term 'serving'. For example, one slice of bread (28 g) may be used to represent a serving. You may also replace the word 'serving' with any other appropriate word describing a common measure or unit including 'metric cup' or 'metric tablespoon'.

If a nutrition claim is made, other information specific to the nature of the claim may be required to be provided. For further information refer to section 5 of this part of the User Guide.

Code references

Clause 1 of Standard 1.2.8 provides definitions for average energy content and several of the nutrients listed above (see the glossary to this part of the User Guide).

Average quantity is defined in Standard 1.1.1 (see the glossary to this part of the User Guide).

Subclause 5(1) of Standard 1.2.8 lists the information that must be included in a nutrition information panel.

² protein, fat, saturated fat, carbohydrate, sugars, and sodium are referred to as 'the six mandatory nutrients' that must be declared, in this User Guide. Energy (not referred to as a nutrient in this User Guide), must also be declared.

³ Biologically active substance is defined in clause 1 of Standard 1.2.8 and means a substance, other than a nutrient, with which health effects are associated.

3.2 How should it be presented?

Clause 5 of Standard 1.2.8 sets out the prescribed format for the nutrition information panel.

The following is an example of how the nutrition information panel should be set out for a jar of peanut butter.

NUTRITION INFORMATION Servings per package: 25 Serving size: 15 g			
	Average Quantity per Serving	Average Quantity per 100 g	
Energy	384 kJ	2560 kJ	
Protein	4.4 g	29.3 g	
Fat, total – saturated Carbohydrate – sugars Sodium	7.6 g 1.5 g 2.0 g 0.9 g 41 mg	50.7 g 10.0 g 13.3 g 6.0 g 273 mg	

Notes:

- 1. In this User Guide, the term 'Average' is used at the beginning of the 'Quantity per Serving' and 'Quantity per g/mL' column headings in the nutrition information panel. Although the format for providing average quantities is not prescribed in Standards 1.2.1 and 1.2.8 (see section 3.5 of this part of the User Guide), paragraph 5(2)(a) of Standard 1.2.8 states that a nutrition information panel must clearly indicate that the average quantities set out in the nutrition information panel are, in fact, average quantities.
- 2. If the food was a liquid, the heading of the column on the right hand side would be expressed as 'Quantity per 100 mL' rather than 'Quantity per 100 g' and the serving size could also be expressed in mL.

3.3 What values should be used in the nutrition information panel?

The values for the energy content, nutrients and biologically active substances listed must be average quantities.

An exception to this is for the declaration of fatty acids. Clause 12 of Standard 1.2.8 permits minimum or maximum quantities for fatty acids to be declared, but only where a nutrition claim is made about the polyunsaturated fatty acid content or monounsaturated fatty acid content of edible oils and edible oil spreads (for which there are compositional requirements specified in Standards 2.4.1 and 2.4.2) (refer to Part B of the User Guide).

For solid and semi-solid foods, the values in the 'average quantity per serving' and 'average quantity per 100 g' columns should be calculated based on the final weight of the food (grams (g)). For liquid foods, the values in these columns should be calculated based on the volume of the food (millilitres (mL)).

Code References

'Average quantity' is defined in clause 2 of Standard 1.1.1. This clause states that average quantities may be determined by analysis of the food or calculation from specified information.

Subclause 5(1) of Standard 1.2.8 requires that the prescribed declarations in the nutrition information panel are average quantities.

Subclause 12(2) of Standard 1.2.8 provides that the quantity of fatty acids may be set out in the nutrition information panel as a minimum or maximum quantity in particular circumstances.

3.4 How to determine the values for a nutrition information panel

There are a number of methods that are commonly used to obtain the food composition values that go into a nutrition information panel. These include:

- laboratory analysis of the food
- the FSANZ Nutrition Panel Calculator (free online software)
- other commercial software
- food composition tables or databases.

Clause 18 of Standard 1.2.8 gives prescribed methods of analysis for the determination of dietary fibre in food.

Further information about the methods for determining the food composition data for a nutrition information panel can be found in Attachment 2.

3.5 How to declare the values

The energy content can be listed either in kilojoules or both in kilojoules and calories (kilocalories). Calories can be expressed as 'Cal'. The prescribed conversion factor is one calorie for every 4.18 kilojoules.

The average quantity of protein, fat, saturated fat, carbohydrate and sugars must be declared in grams. The sodium content can be listed either in milligrams (mg) or both milligrams and millimoles (expressed as mmol).

The nutrition information panel must clearly indicate which quantities are average quantities and which (where permitted) are minimum or maximum quantities. The word 'Average' may be inserted at the beginning of the 'Quantity per Serving' and the 'Quantity per 100 g (or per 100 mL)' columns. Alternatively, a note below the nutrition information panel can be included, e.g. 'All values are considered averages unless otherwise indicated'.

The Code does not prescribe how to indicate minimum and maximum quantities. It is up to the food business to determine how to clearly indicate these quantities.

Where the average quantity of protein, fat, classes of fatty acids, carbohydrate, sugars or dietary fibre in a serving or unit quantity⁴ of food is less than 1 gram, the average quantity may be declared as 'LESS THAN 1 g'.

⁴ 'Unit quantity' is defined in clause 1 of Standard 1.2.8 as either 100g (solid or semi-solid foods) or 100 ml (beverage or other liquid food).

If the average energy content per serving or unit quantity of food of the food is less than 40 kJ, the average energy content may be declared as 'LESS THAN 40 kJ'.

Where the average quantity of sodium or potassium in a serving or unit quantity of food is less than 5 mg, the average quantity may be expressed as 'LESS THAN 5 mg'.

The Code does not include a provision allowing symbols such as '<' to be used as a substitute for 'LESS THAN...'.

Code References

Paragraph 5(1)(d) requires the average energy content to be declared either in kilojoules or both kilojoules and calories.

Subclause 1(2) of Standard 1.2.8 provides the formula for converting kilojoules to calories.

Subclause 5(2) of Standard 1.2.8 requires that the nutrition information panel must clearly indicate which quantities are average quantities and which are minimum and maximum quantities.

Clause 6 of Standard 1.2.8 gives permission to express the average quantity of certain substances as 'LESS THAN 1 g' or 'LESS THAN 5 mg' and for average energy content to be expressed as 'LESS THAN 40 kJ', where appropriate.

3.6 To how many significant figures should the values be declared to?

Values in the nutrition information panel must be declared to no more than three significant figures, using the prescribed units. A significant figure refers to the digits in a number excluding the zeros after an integral number or before a decimal fraction. For example, 0.0352 and 35,200 are both declared to three significant figures. The approach suggested by FSANZ for rounding significant figures is as follows:

- if the 4th significant figure is in the range 1 to 4, the 3rd significant figure is unchanged, e.g. 0.03524 is rounded to 0.0352.
- if the 4th significant figure is in the range 6 to 9, the 3rd significant figure is rounded up, e.g. 0.03528 is rounded to 0.0353.
- if the 4th significant figure is 5, rounding occurs as follows: if the 3rd significant figure is an even number, it remains unchanged, e.g. 0.03525 is rounded to 0.0352; if the 3rd significant figure is an odd number, it is rounded up eg 0.03575 is rounded to 0.0358.

Note that Standard 1.2.8 only requires that numbers be declared to a MAXIMUM of three significant figures; this does not preclude food businesses from declaring values less than three significant figures.

Code Reference

Subclause 6(1) of Standard 1.2.8 requires that the average energy content and average or minimum or maximum quantities of nutrients and biologically active substances is expressed in the nutrition information panel to no more than three significant figures.

3.7 What is a serving?

Serving sizes are not defined in the Code and the size of the serving used in the nutrition information panel is not prescribed, however the following suggestions are provided by FSANZ to assist food businesses to determine serving sizes.

Serving sizes specified by the food business should reflect a realistic portion of the food that a person might normally consume on one eating occasion. Other legislation may be applicable in this case, including that the serving size should not be false, misleading or deceptive, or likely to mislead or deceive.

If the serving size is equal to 100 g, the two columns are still required to be displayed in the nutrition information panel, namely the 'per serve' and 'per 100 g' (or per 100 mL) columns.

3.8 How should the servings per package be expressed?

The number of servings of the food in the package, or the number of servings of the food per kilogram or other unit as appropriate to the food, must be declared in the nutrition information panel. The option to declare the number of servings in the food per kilogram or other unit can only be used for packaged foods when the weight or volume of the food as packaged is variable, for example, sausages packed onto trays in a supermarket.

Code Reference

Paragraph 5(1)(a) of Standard 1.2.8 sets out the requirements for expressing the number of servings in the food.

3.9 How should the serving size be expressed?

The average quantity of food in a serving must be declared in the nutrition information panel. The serving size must be declared in grams (g) if the food is a solid or semi-solid and in millilitres (mL) if the food is a liquid. The food business would determine which declaration is appropriate i.e. whether a food is a solid, semi-solid or liquid food.

Code Reference

Paragraph 5(1)(b) sets out the requirements for declaring the average quantity of food in a serving.

3.10 Foods that the consumer prepares before consumption

For most foods, the nutrition information panel should be based on the form of the food as it is when sold. For example, if the food is sold uncooked but requires cooking before consumption, the nutrition information panel should be provided for the uncooked food. However, as outlined below, there are certain requirements for foods that require reconstituting; draining prior to consumption; or are intended to be prepared or consumed with at least one other food.

Where foods should be reconstituted with water or drained before consumption, the quantities in the nutrition information panel should reflect the food as reconstituted or drained, as applicable. For example, if it is recommended that cordial be diluted one part cordial to four parts water, the values in the nutrition information panel should be based on the cordial in its ready-to-drink form. The label should clearly indicate that the values in the nutrition information panel relate to the food as drained, reconstituted or diluted, as applicable.

Where a food business intends that the food be prepared or consumed with at least one other food, the nutrition information panel should contain a 'per serve' and a 'per 100 g' (or per 100 mL) column that reflects the contents of the package of the food to be prepared or consumed with the other food as usual. However, food businesses have the option to include an additional column in the nutrition information panel that reflects the food prepared with other intended foods. The top of this column would outline what the additional foods are and the quantities of these foods. The column would then reflect the average quantities of nutrients in the food made up with the other intended foods. It is at the supplier's discretion whether this column is displayed per serve or per 100 g or 100 mL.

The following is an example of how the nutrition information panel could be set out for a food intended to be prepared or consumed with other food.

NUTRITION INFORMATION Servings per package: (insert number of servings) Serving size: g (or mL or other units as appropriate)			
Serving size: g (or mil.		Average Quantity	Average quantity per serving with + (list other foods and their quantity)
Energy	kJ (Cal)	kJ (Cal)	kJ (Cal)
Protein	g	g	g
Fat, total – saturated	g g	g g	g g
Carbohydrate – sugars	g g	g g	g g
Sodium	mg (mmol)	mg (mmol)	mg (mmol)

Code References

Clauses 9 and 10 of Standard 1.2.8 refer to foods where directions on the label indicate that they be drained or reconstituted with water before consumption.

Clause 11 of Standard 1.2.8 refers to foods that are intended to be prepared or consumed with at least one other food.

3.11 Common Mistakes

FSANZ research⁵ indicates there are common mistakes in preparing nutrition information panels that may affect consumers' ability to understand and interpret the information given. FSANZ recommends that:

a panel heading 'NUTRITION INFORMATION' is provided

http://www.foodstandards.gov.au/newsroom/publications/evaluationreportseries/ongoingfoodlabelmoni4145.cfm

⁵ 2006 Label monitoring survey:

- serving information (servings per pack and serving size) is provided and that the correct wording is used
- all required nutrients and energy are presented (irrespective of whether or not they are present in the food) and are listed in the correct order
- symbols such as '<' to describe mathematical terms with respect to nutrient values are not used (see section 3.5 'How to declare the values')
- all values presented in the nutrition information panel are clearly indicated as being average quantities, or minimum or maximum quantities as the case may be.

Regarding the format of the nutrition information panel, FSANZ recommends you check that:

- internal and external borders are correct and, in particular, that internal borders are included as required
- serving information (servings per pack and serving size) is presented in the correct text case and is correctly aligned
- column headings are worded using the prescribed format
- nutrients are presented in the correct text case and in the correct order.

4. Requirements when giving percentage daily intake information

Percentage daily intake information may be voluntarily provided in the nutrition information panel. Where such information is provided, there are mandatory requirements governing its use.

4.1 What is percentage Daily Intake (%DI)?

Daily intake reference values provide information on the total amount of energy, protein, fat, saturated fatty acids, carbohydrate, sugars, dietary fibre and sodium to be consumed daily by an 'average' adult, based on an 8700 kJ diet that is in accordance with national dietary guidelines. Percentage daily intake information therefore expresses the percentage of the daily intake for these particular nutrients and energy that will be obtained from consuming one serving of the food. Percentage daily intake values must be calculated using the daily intake reference values stated in the Table to subclause 7(3) of Standard 1.2.8. For example, the daily intake reference value for fat is 70 g. A food that has 14 grams of fat per serving could state on the label that the % DI for fat is 20%.

The %DI values are based on a single set of average reference values for adults and as such, are not directly applicable to individual needs or specific sub-groups of the population such as children. The prescribed reference values are intended to provide an approximate reference measure and are derived from a variety of recognised sources (refer Attachment 3).

Percentage daily intake information differs from %RDI information which specifically applies to vitamins and minerals.

4.2 How to calculate the %DI values

Where %DIs are included in the nutrition information panel, the %DIs must be calculated using the reference values prescribed in the Table to subclause 7(3) of Standard 1.2.8 (see Attachment 3 for the reference values and the basis for these). If the %DIs are calculated per serve, the following formula could be used to determine the %DI:

%DI = Quantity in a serve x 100

Reference value

Example

If one serving of the product contains 10 g of fat and the reference value for fat is 70 g, the %DI for fat, for one serving of the food, rounded to the nearest whole number, would be:

Quantity in a serve x_{100} 10 $x_{100} = 14.28 = 14%$

Reference value 70

4.3 What information must be provided?

Where %DI values are displayed in the nutrition information panel, you must include the %DI for energy, protein, fat, saturated fatty acids, carbohydrate, sugars, and sodium provided by the food. It is at the discretion of the food business whether %DI for dietary fibre is included.

The following statement must also be included in the nutrition information panel where %DI values are included:

The following is an example of a nutrition information panel containing %DI values.

NUTRITION INFORMATION				
Servings per package: (insert number of servings)				
Serving size: g (or mL or other units as appropriate)				
	Average Quantity per Serving	% Daily Intake* (per Serving)	Average Quantity per 100 g (or 100 mL)	
Energy	kJ (Cal)	%	kJ (Cal)	
Protein	g	%	g	
Fat, total	g	%	g	
– saturated	g	%	g	
Carbohydrate – sugars	g g	% %	g g	
Sodium	mg (mmol)	%	mg (mmol)	

^{*}Percentage daily intakes are based on an average adult diet of 8700 kJ. Your daily intakes may be higher or lower depending on your energy needs.

Code Reference

Clause 7 of Standard 1.2.8 sets out the conditions for percentage daily intake information.

^{&#}x27;*Percentage daily intakes are based on an average adult diet of 8700 kJ. Your daily intakes may be higher or lower depending on your energy needs'.

5. Nutrition information panels where a nutrition claim is made

If a nutrition claim is made, other information specific to the nature of the claim may be required to be provided. These requirements are outlined in Part B of the User Guide to Standard 1.2.8 and should be considered in conjunction with Part A. There are conditions in Standard 1.2.8 associated with making nutrition claims about:

- polyunsaturated and monounsaturated fatty acids (clause 12)
- omega fatty acids (subclause 5(4) and clause 13)
- trans fatty acids (subclause 5(4))
- saturated fatty acids (subclause 5(4))
- cholesterol (subclause 5(4))
- energy (clause 14)
- lactose (clause 15)
- gluten (clause 16)
- salt, sodium, and potassium (clause 17)
- dietary fibre or any specifically named dietary fibre (subclause 5(5) and clause 18)
- sugars (subclause 5(5))
- carbohydrate (subclause 5(5)).

There are conditions in Standard 1.3.2 – Vitamins and Minerals, and Part 2.9 – Special Purpose Foods, for making claims about vitamins and minerals.

Where can I get more information?

Your first call should be the FSANZ website:

www.foodstandards.gov.au (Australia)

or

www.foodstandards.govt.nz (New Zealand)

Other Websites

Australian Competition and Consumer Commission (ACCC) http://www.accc.gov.au/content/index.phtml/itemId/142

Commerce Commission of New Zealand http://www.comcom.govt.nz/

Trade measurement legislation information available here: http://www.measurement.gov.au/index.cfm?event=object.showContent&objectID=C3EB158B-BCD6-81AC-1DC5A41E29837C8C

http://www.consumeraffairs.govt.nz/measurement/businessinfo/index.html

See other User Guides that are on the FSANZ website:

http://www.foodstandards.gov.au/foodstandards/userguides/

Attachment 1 – Definitions for nutrition labelling

The definitions that apply only to nutrition labelling are provided in clause 1 of Standard 1.2.8 – Nutrition Information Requirements. Further definitions that apply to the Code as a whole are provided in Standard 1.1.1 – Preliminary Provisions – Application, Interpretation and General Prohibitions. Some of these will be relevant for nutrition labelling such as 'average quantity', 'label', and 'nutrition information panel'.

Some of the definitions in Standard 1.2.8 may differ from definitions of similar terms provided in other standards, e.g. 'sugars', which is also defined in Standard 2.8.1 for different purposes.

Average quantity

Average quantity is defined in Standard 1.1.1, as follows:

average quantity in relation to a substance in a food is the quantity determined from one or more of the following:

- (a) the manufacturer's analysis of the food; or
- (b) calculation from the actual or average quantity of nutrients in the ingredients used; or
- (c) calculation from generally accepted data;

which best represents the quantity of the substance that the food contains, allowing for seasonal variability and other known factors that could cause actual values to vary.

Biologically active substance

For the purpose of nutrition labelling, a biologically active substance means a substance, other than a nutrient, with which health effects are associated.

An example of a biologically active substance may be phytoestrogens. Biologically active substances could be either naturally occurring or added to the food.

Carbohydrate

Two definitions of carbohydrate have been included in Standard 1.2.8 to permit the calculation of carbohydrate as either carbohydrate by difference or as available carbohydrate.

Carbohydrate by difference is calculated by subtracting from 100, the average quantity expressed as a percentage, of water, protein, fat, dietary fibre, ash, alcohol and if quantified or added to the food⁶, any other unavailable carbohydrate and the substances listed in column 1 of Table 2 to subclause 2(2) of Standard 1.2.8.

Available carbohydrate is calculated by summing the average quantity of total available sugars and starch, and if quantified or added to the food, any available oligosaccharides, glycogen and maltodextrins.

⁶ 'Added to the food' means added in any amount as an additive or ingredient to the final food.

Dietary fibre

Dietary fibre is defined in clause 1 of Standard 1.2.8 as that fraction of the edible part of plants or their extracts, or synthetic analogues that are resistant to the digestion and absorption in the small intestine, usually with complete or partial fermentation in the large intestine; and promote one or more of the following beneficial physiological effects:

- laxation
- reduction in blood cholesterol
- modulation of blood glucose.

Dietary fibre includes polysaccharides, oligosaccharides (degree of polymerisation > 2) and lignins.

See clause 18 of Standard 1.2.8 for methods of analysis.

When a food business chooses to include a specifically named fibre in the nutrition information panel, the food business should first work out which food components in column 1 of the Table to subclause 18(1) are present in the food and then use the appropriate method(s) of analysis in column 2. The results of the chosen methods of analysis are then added together if necessary. If any substance has been measured by more than one method of analysis, then any portion of this substance that has been included in the results of more than one method of analysis should be subtracted, to avoid double counting.

In the case of total dietary fibre, the food business should choose which method of analysis from column 2 of the Table to subclause 18(1) to use.

Energy

'Average energy content' is defined in clause 1 of Standard 1.2.8 on the basis of the amount of each food component in 100 g of the food and the energy factor of that food component.

'Average energy content' means the energy content of a food determined by multiplying the average amount of each food component per 100 grams of the food by the energy factor for that food component and summing the amounts calculated for each using the following formula:

Average energy (kJ/100 g) = $\sum W_i F_i$

Where -

 \mathbf{W}_i means the average weight of the food component (g/100 g food) and \mathbf{F}_i means the energy factor assigned to that food component (kJ/g).

Energy factor is defined in subclause 2(1) of Standard 1.2.8. Specific energy factors for each food component are given in the tables to subclause 2(2) of Standard 1.2.8 and are also in Attachment 4 of this part of the User Guide.

Fat

A definition of 'fat' has been included in Standard 1.2.8 to make it clear that the term 'fat' in Standard 1.2.8 means total fat. This definition describes total fat for the purposes of Standard 1.2.8 and does not differentiate between fats, oils or other lipid components of foods.

Monounsaturated fatty acids

Monosaturated fatty acids means the total of cis-monounsaturated fatty acids and declared as monounsaturated fat.

The definition refers to those fatty acids that have a chemical structure containing one double bond in the cis configuration. If these are declared, they should be declared as 'monounsaturated' under the heading for 'fat' in the nutrition information panel (except on small packages – refer to section 2.3 of this part of the User Guide).

Polyunsaturated fatty acids

Polyunsaturated fatty acids means the total of polyunsaturated fatty acids with cis-cis-methylene interrupted double bonds and declared as polyunsaturated fat.

The definition refers to those fatty acids that have a chemical structure containing two or more double bonds in the cis configuration. If these are declared, they should be declared as 'polyunsaturated' under the heading for 'fat' in the nutrition information panel (except on small packages – refer to section 2.3 of this part of the User Guide).

Saturated fatty acids

Saturated fatty acids means the total of fatty acids containing no double bonds and declared as saturated fat.

The definition refers to those fatty acids that have a chemical structure containing no double bonds. These should be declared as 'saturated' under the heading for 'fat' in the nutrition information panel (except on small packages – refer to section 2.3 of this part of the User Guide).

Sugars

For the purposes of Standard 1.2.8, sugars means monosaccharides and disaccharides.

Trans fatty acids

Trans fatty acids means the total of unsaturated fatty acids where one or more of the double bonds are in the trans configuration and declared as trans fat.

The definition refers to those fatty acids that have a chemical structure in which one or more of the double bonds is in the trans configuration. If these are declared, they should be declared as 'trans' under the heading for 'fat' in the nutrition information panel (except on small packages – refer to section 2.3 of this part of the User Guide).

Attachment 2 – Deriving Food Composition Data

There are a number of methods that are commonly used to derive food composition data to develop a nutrition information panel. These include:

- laboratory analysis of the food
- the FSANZ Nutrition Panel Calculator (free online software)
- other commercial software
- food composition tables or databases.

Laboratory analysis

Foods can be analysed directly, including by laboratories accredited by either the National Association of Testing Authorities (NATA) or International Accreditation New Zealand (IANZ).

The advantage of having the nutrient composition of a food analysed by a laboratory is that this may provide verification of the nutrient composition of the product in question. However, it is important to bear in mind that the representativeness of the results may depend on the sampling protocol, and the accuracy of the results may depend on the analytical methods used and the complexity of the product.

A well designed sampling protocol should define the number and size of the food samples to be collected, collection points, sample preparation and storage, as well as the specific nutrients to be analysed and methods of analysis. For more information regarding the preparation of a sampling protocol, see:

Greenfield, H. and Southgate, D.A.T. (2003) Food composition data. 2nd edition. Rome: Food and Agriculture Organization of the United Nations.

Analysis of total dietary fibre and specifically named fibre content of food

In the case of determining the total dietary fibre content and the content of specifically named fibres, analytical methods are explicitly prescribed in clause 18 of Standard 1.2.8. Specific methods are listed for total dietary fibre, total dietary fibre (including all resistant maltodextrins), inulin and fructooligosaccharide, inulin and polydextrose. In addition, added resistant maltodextrins would need to comply with Standard 1.3.4 – Identity and Purity.

Nutrition Panel Calculator

The Nutrition Panel Calculator (NPC) is a free on-line tool designed to assist food businesses to calculate the average nutrient content of their food products and to prepare a nutrition information panel as required by Standard 1.2.8. After certain information about your custom ingredients or food product is entered into the NPC, the NPC will automatically generate a nutrition information panel for energy and the six mandatory nutrients – protein, fat, saturated fat, carbohydrate, sugars, and sodium.

The NPC, a Quick Start User Guide and accompanying full Explanatory Notes can be accessed from FSANZ's website: http://www.foodstandards.gov.au.

The NPC is supported by a food composition database (the NPC database 2011), which contains nutrient data for more than 2500 foods/ingredients. The NPC database contains the most up-to-date and relevant data available at the time of release, sourced from several previously published Australian food composition databases including NUTTAB (**NUT**rient **TAB**les) (mainly NUTTAB 2010) and AUSNUT (**AUS**tralian food and **NUT**rient database) (mainly AUSNUT 2007)

databases. NUTTAB is Australia's reference nutrient database. AUSNUT is a survey database that contains nutrient values for foods consumed during national nutrition surveys. Neither of these databases was designed for the purposes of calculating nutrition information panels.

NPC Limitations

There are some specific limitations which apply to using the NPC to calculate nutrition information panel values. These limitations include:

- the NPC expresses carbohydrate as available carbohydrate (see clause 1 of Standard 1.2.8)
- the NPC does not make provision for the substances listed in Table 2 to subclause 2(2), which must be declared separately in the nutrition information panel if quantified or added to a food when available carbohydrate is used (refer to subclause 5(6B) of Standard 1.2.8)
- the results calculated for energy do not take into account the specific energy factors which apply to organic acids or to polyols and polydextrose if quantified or added to a food when available carbohydrate is used
- the NPC is not designed to calculate the nutrient composition of fried foods. It is recommended that you use laboratory analysis for these foods
- the NPC cannot take into account the effect on nutrients of a range of other processing steps such as washing and salting (except where specifically stated)
- the NPC does not contain a comprehensive set of nutrient data for food additives and processing aids.

Further information on the use and limitations of the NPC can be found in the NPC Explanatory Notes, available on the FSANZ website.

Other commercial software

There are a small number of software companies that develop other nutritional analysis software.

Food composition databases

Previously, paper-based food composition tables were published in Australia by FSANZ and were available to calculate the average quantity of specific nutrients in 100 g of the food. These paper-based publications are not produced by FSANZ anymore; however, they are available as electronic data files (*Online* and *Electronic Versions*), (NUTTAB2010 and *AUSNUT 2007*) and can be downloaded from FSANZ's website at: http://www.foodstandards.gov.au.

In New Zealand, a paper-based food composition publication is still available. *The Concise New Zealand Food Composition Tables*, 8th edition (New Zealand Institute for Plant and Food Research, 2009) contains New Zealand nutrient data for around 900 foods (both per 100 g and per common serving sizes). It is available from the New Zealand Institute for Plant and Food Research Limited (previously known as New Zealand Institute for Crop and Food Research) website at the following link: http://www.foodcomposition.co.nz/concise-tables. New Zealand also provides electronic database files; these are discussed below.

The *NUTTAB 2010* electronic database files contain approximately 2190 foods and up to 195 nutrient values for each food. The *NUTTAB 2010 Online Version* allows users to search by individual foods, food groups or individual nutrients and is available from the FSANZ website. The electronic database files comprise six core . txt or .tab files, which contain nutrient data for all foods within the publication. There are also files containing ancillary information on each food, such as the food's common and scientific name, a description of the food, and information about the sample origin (including date and place of purchase where relevant) etc. for all foods contained in the NUTTAB 2010 publication. Files relating to recipe foods and retention factors have also been

included. *NUTTAB* is developed for reference purposes and not specifically for calculating values for nutrition information panels.

The *NUTTAB* electronic database undergoes regular revisions to incorporate updated analytical data and include foods which are new to the market or have increased in popularity since the last edition. Users should note however, that derivation of energy values in *NUTTAB* 2010 may not conform to the requirements of the Code. You are advised to recalculate energy according to the requirements of Standard 1.2.8.

AUSNUT 2007 is FSANZ's most recent survey-specific nutrient database developed to support the 2007 National Children's Nutrition and Physical Activity survey. AUSNUT 2007 contains data for 4,225 foods and dietary supplements and 37 nutrients, expressed per 100 g edible portion for foods and per 100 dosage units for dietary supplements. Due to the techniques used to develop this survey database and because the derivation of energy values may not conform with the requirements of the Code, it is not appropriate to use for labelling purposes in its current form. Where appropriate, FSANZ adapted some of AUSNUT 2007 for use in the NPC.

AUSNUT Special Edition was used as the database to support the NPC, however it was replaced in 2011 with a new dataset called the NPC database 2011. The NPC database 2011 has been updated to include nutrient data for 84 previously unpublished foods/ingredients (e.g. sodium containing food additives). The NPC database 2011 file can be downloaded from the FSANZ website.

New Zealand food composition data are also available electronically from a number of sources including *FOODfiles 2010 Version 02: New Zealand Food Composition Database* that includes data on 2710 foods and 59 nutrients, expressed per 100 g edible portion and per common serving size. The New Zealand FOODfiles 2010 Version 02 contains six files, which are available in two formats: as tilde delimited ASCII text files and as Microsoft Excel TM files. The New Zealand FOODfiles 2010 Version 02 contains the complete presentation of 59 core components for 2,710 foods in the Standard Version and 354 components for 2,710 foods in the Unabridged Version (however, this version does not contain values for every single component for every single food). Further details regarding how to download the New Zealand *FOODfiles 2010 Version 02* can be found on their website: http://www.foodcomposition.co.nz/foodfiles.

Overseas references

Overseas sources should generally only be used to supplement missing data from Australian or New Zealand sources as country differences in regulatory requirements, agricultural conditions/practices, formulations, food nomenclature, and retail presentation may result in values that do not represent the locally made product.

Food composition data are available from overseas text references including:

- UK Food Standards Agency McCance and Widdowson's The Composition of Foods Integrated Dataset (CoF IDS), 2002. www.food.gov.uk/science/dietarysurveys/dietsurveys/
- Danish Food Composition Databank, version 7.01, March 2009.
 www.foodcomp.dk
- United States Department of Agriculture National Nutrient Databank for Standard Reference, release 22, 2009.

www.ars.usda.gov/main/site main.htm?modecode=12-35-45-00

Users are advised to check the introductory pages for differences that may impact on compliance with the Code.

Limitations

There are a number of limitations in using food composition tables and databases that you should consider when calculating the values for a nutrition information panel.

The nutrient values presented in food composition tables and databases are mostly estimates that attempt to provide representative data. Foods, being biological materials, vary greatly in their nutrient composition.

For primary produce, the variability in nutrient composition may be due to different methods of plant and animal husbandry, storage, transport, and marketing. Processed foods, despite being subject to quality control during production, also vary because of differences in the composition of ingredients and changes in formulation and production.

Also, the nutrient data differ significantly in quality depending on the different ways in which they are obtained. Data may be original analytical values that are derived by direct analysis of the food or from a recipe. Or, they may simply be estimates worked out using similar foods or another form of the same food, e.g. values for boiled peas are used for steamed peas. Also, data for some recipe foods may be calculated by using the ingredients and correcting for preparation factors.

It is important for users to read the explanatory sections of these databases to determine whether the expression of the nutrients is compatible with their needs and the requirements of the Standard. This is particularly so for carbohydrate and energy.

Most food composition tables and databases express carbohydrate as the sum of total sugars, starch and perhaps other carbohydrate components such as dextrins, available oligosaccharides and sugar alcohols (polyols). This is similar to the definition of available carbohydrate used in the Code for the inclusion of polyols. Very few data sources calculate carbohydrate by difference, or give sufficient data for you to calculate carbohydrate by difference, for example, not many tables list the ash content of foods.

Food composition tables and databases generally do not include food components such as unavailable carbohydrates, polyols or polydextrose. Therefore, when added or occurring in significant quantities, average amounts of these food components need to be known or determined by analysis. The average quantity of carbohydrate can still be calculated by difference (according to the definition given in Standard 1.2.8), providing the quantities of the other food components are subtracted.

A further limitation with using food composition tables and databases is that energy content is usually calculated by application of energy factors to the macronutrients that are the same as or similar to those shown in the Standard. The most likely variation in use of energy factors will be for carbohydrate (16 or 17 kJ/g), and dietary fibre (0 or 8 kJ/g).

A data source may be compatible with Standard 1.2.8 if:

- carbohydrate is calculated by difference, or data are shown for all components of the calculation (water, protein, fat, dietary fibre, ash and alcohol)
- carbohydrate is calculated using the Code definition of available carbohydrate
- energy is calculated using the same energy factors as listed in Standard 1.2.8 for protein, carbohydrate, fat, dietary fibre and alcohol.

References

Greenfield, H. and Southgate, D.A.T. (2003) Food composition data. 2nd edition. Rome: Food and Agriculture Organisation of the United Nations.

Attachment 3 – Reference values for percentage of daily intake (%DI)

Food component	Reference value	Basis for reference values	Source of health recommendations for reference amount
Energy	8700 kJ (2100 kcal)	Based on the average energy consumption/day for adults and children over 4 years of age in Australia and New Zealand.	1995 National Nutrition Survey, Australia 1991 Life in NZ Survey
Protein	50 g	Protein based on average for RDI for men (55 g) and non-pregnant, non-lactating women (45 g).	Australian RDI, as per NHMRC 1991
Fat	70 g	Fat based on 30% of energy	CDHSH 1994
Saturated fatty acids	24 g	Saturated fat based on 10% of energy.	CDHSH 1994
Carbohydrate	310 g	Carbohydrate based on balance of energy and cross-referenced with survey data and international targets (60% of energy).	No RDI or targets set. US value for labelling set at 60 per cent of energy
Sugars	90 g	Sugars based on 12 per cent of energy.	Dietary Guidelines for Australian Adults. NHMRC, 2003 ⁶
Dietary fibre	30 g	Dietary fibre based on 30 g per day.	Better Health Commission Target, Commonwealth Dept Health, 1987
Sodium	2300 mg		Australian RDI, as per NHMRC 1991

References

- 1. Australian Bureau of Statistics (1998) *National Nutrition Survey: Selected Highlights, Australia 1995.* Australian Bureau of Statistics, Canberra.
- 2. Horwath C, Parnell W, Birkbeck J, Wilson N, Russell D and Herbison P. (1991) *Life In New Zealand Survey Commission Report: Volume VI: Nutrition.* University of Otago, Dunedin.
- 3. National Health and Medical Research Council (1991) *Recommended Dietary Intakes for Use in Australia*. AGPS Canberra.
- 4. Commonwealth Department of Human Services and Health (1994) Better Health Outcomes for Australians. National Goals, Targets and Strategies for Better Health Outcomes into the Next Century. Commonwealth Department of Human Services Canberra.
- 5. Commonwealth Department of Health. *Towards Better Nutrition for Australians. Report of the Nutrition Taskforce of the Better Health Commission*. AGPS Canberra, 1987.
- 6. NHMRC (2003) *Dietary Guidelines for Australian Adults*. NHMRC, Commonwealth of Australia.

Attachment 4 – Energy factors in relation to food components

Table 1 to subclause 2(2), Standard 1.2.8 – Nutrition Information Requirements

Food Component Alcohol	Energy Factor (kJ/g) 29
Carbohydrate (excluding unavailable carbohydrate)	17
Unavailable carbohydrate (including dietary fibre)	8
Fat	37
Protein	17

Table 2 to subclause 2(2), Standard 1.2.8 – Nutrition Information Requirements

Food Component	Energy Factor (kJ/g)
Erythritol	1
Glycerol	18
Isomalt	11
Lactitol	11
Maltitol	13
Mannitol	9
Organic acids	13
Polydextrose	5
Sorbitol*	14
Xylitol	14
D-Tagatose	11

^{*} Energy factor for sorbitol taken as average of calculated range determined with or without ingestion of other foods.