Health Awareness and Nutrition

Food Labeling

Department of Clinical Nutrition and Dietetics
College of Health Sciences

Why Should I Use the Food Label?

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- They are a source of consumer education.
- They are genuine claims about the facts of the product.
- The food statements must meet government health/safety definitions.
- To check the health claims and effects of diet on health.
- To make a comparison between products.
- They help consumers know more about the foods they are eating and thus help them to make better choices.
- All packaged foods have nutrition labels.
- ***Exceptions**: foods contributing too few nutrients like coffee, tea and spices

What Information is on Food Labels?

The Importance of Reading Food Labels

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You should practice reading food labels as they are a good planning tool for a healthy and balanced diet.

And individuals who suffer from health conditions such as high blood pressure, high levels of harmful cholesterol, diabetes, and other diseases must resort to it.

What Type of Information Should the Food Label Contain?

Mandatory information

- Name of the food, company, list of ingredients, production and expiry date, etc.

Nutrition information

- Nutrition facts, health claims, etc.

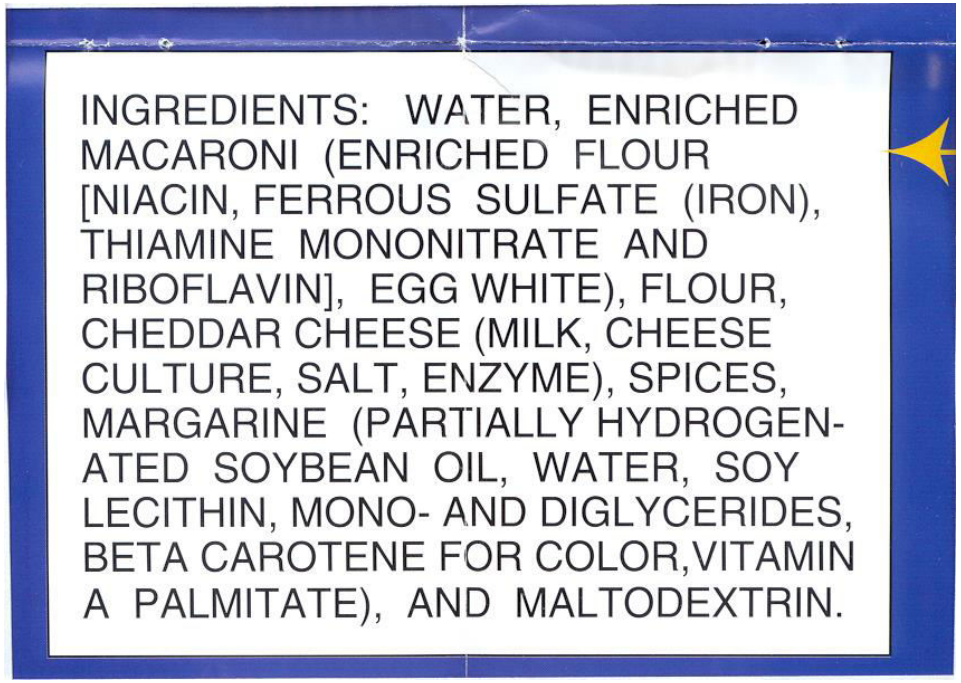
Other information

Mandatory Information

The information present on the label should include the:

- Name of product
- Name and address of manufacturer (company)
- Net contents in terms of weight, measure, or count
- List of ingredients (in ordinary language) in descending order of predominance by weight
- Expiration and manufacturing date

Mandatory Information



CONTAINS WHEAT, MILK, AND EGG INGREDIENTS.

To be healthy, the first 3 ingredients should not include the following:

- Sugar
- Fructose corn syrup
- Oil (any kind), Shortening
- Salt (sodium)
- Artificial ingredients
- Preservatives

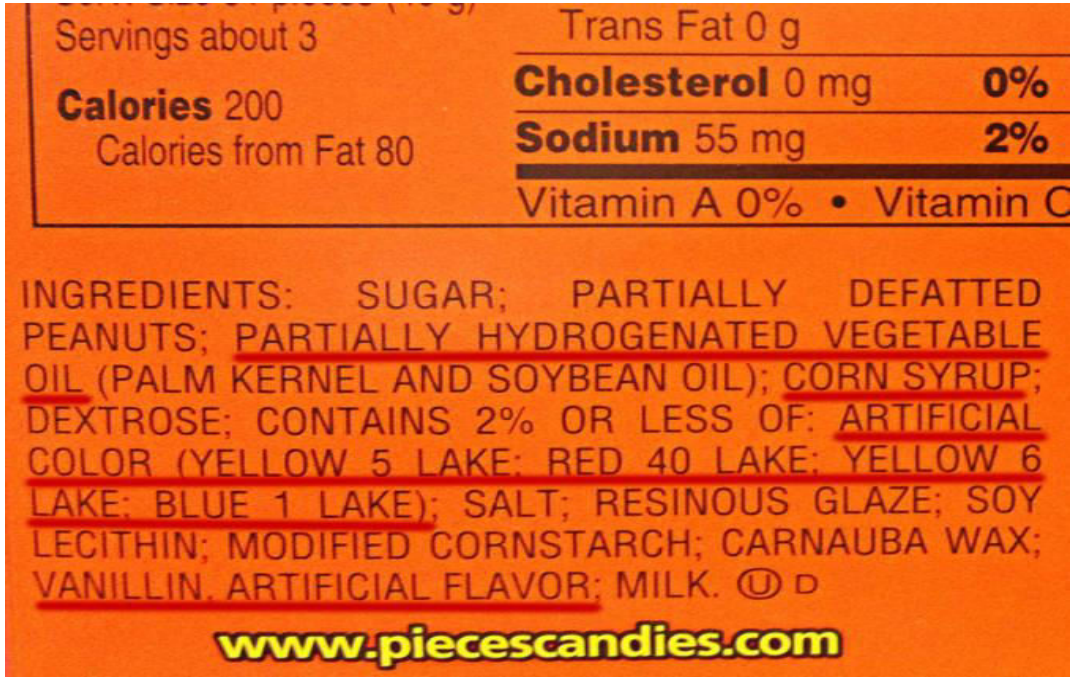
Sources of some ingredients will be stated by name to help people better identify them.

It is required by law to list any allergens either in the ingredient list or a separate statement with the word “contains.”

Mandatory Information

Ingredients List:

- Name of ingredients that should be mentioned on the label.
- The name of the food (item) itself being sold as a food.
- The treatment that has been accompanied with food such as (dried).
- The words, “flavoring and natural,” should be added with the name of the food.
- The words “produced from genetically modified Soya” should be declared in the list of ingredients.



Foods Exempted from "List of Ingredients"

Unprocessed fruit and vegetables

Carbonated water

Cheese, butter, fermented milk, and fermented cream to which only lactic products, enzymes and microorganism cultures essential to manufacture have been added, or, in the case of cheese

Flour containing only legally required nutritional additives

Date Marks

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There are two different date marks that appear on food labels:

"**Use-by**" – found on perishable foods, e.g. milk, red meat, fish. Foods are not safe to eat after this date.

"**Best before**" – found on a wide range of foods including frozen, dried and canned foods. "Best before" dates are about quality, not safety, and are reliant on the food being stored according to the instructions on the label.

Nutritional Information

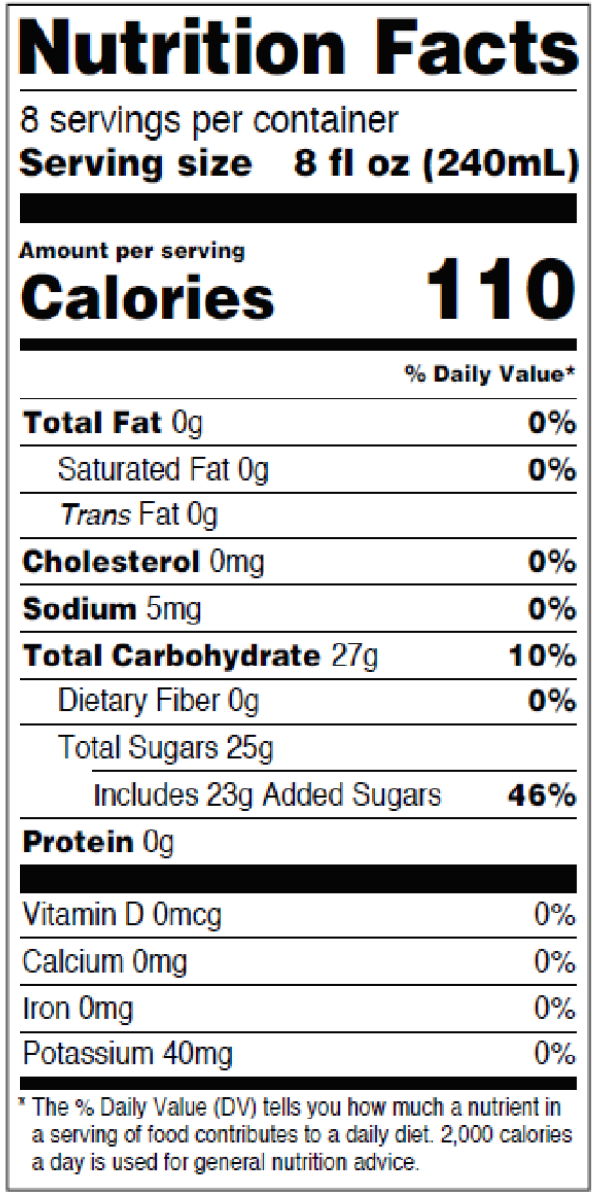
Nutrition Facts

1	8 servings per container
	Serving size 2/3 cup (55g)
2	**Amount per serving**
	Calories 230
	% Daily Value*
3	**Total Fat** 8g 10%
	Saturated Fat 1g 5%
	Trans Fat 0g
	Cholesterol 0mg 0%
	Sodium 160mg 7%
	Total Carbohydrate 37g 13%
	Dietary Fiber 4g 14%
	Total Sugars 12g
4	Includes 10g Added Sugars 20%
	Protein 3g
5	Vitamin D 2mcg 10%
	Calcium 200mg 15%
	Iron 8mg 45%
	Potassium 235mg 6%
6	* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

Nutrition Facts:

1. Number of servings/container
2. Calories
3. Nutrient amounts and percentages of DVs
   - Total Fat (saturated and trans)
   - Cholesterol
   - Sodium
   - Total Carbohydrate (fibers and sugars)
   - Protein
4. Added Sugars (if any)
5. Vitamins and Minerals
   - *Vitamin D, Calcium, Potassium and Iron*
6. % Daily Value (DV)

Added Sugars



Nutrition Facts

8 servings per container

Serving size **8 fl oz (240mL)**

Amount per serving

Calories	**110**
	% Daily Value*
Total Fat 0g	**0%**
Saturated Fat 0g	**0%**
Trans Fat 0g	
Cholesterol 0mg	**0%**
Sodium 5mg	**0%**
Total Carbohydrate 27g	**10%**
Dietary Fiber 0g	**0%**
Total Sugars 25g	
Includes 23g Added Sugars	**46%**
Protein 0g	
Vitamin D 0mcg	0%
Calcium 0mg	0%
Iron 0mg	0%
Potassium 40mg	0%

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

1

2

The *Dietary Guidelines for Americans* recommends limiting calories from added sugars **to less than 10 percent of total calories per day.**

For example, if you consume a 2,000 calorie daily diet, that would be 200 calories or **50 grams** of added sugars per day.

Having the word "**includes**" before added sugars on the label indicates that added sugars are included in the number of grams of total sugars in the product.

For example, a container of yogurt with added sweeteners means that one serving of the product **has 23 grams of added sugars and 2 grams of naturally occurring sugars** represents **46% of the Daily Value** for added sugars.

Smart Label Reading

Nutrition Facts

2 servings per container

Serving size 1 cup (237mL)

Amount per serving

Calories **160**

	% Daily Value*
Total Fat 4g	6%
Saturated Fat 0.5g	3%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 680mg	28%
Total Carbohydrate 24g	8%
Dietary Fiber 8g	32%
Total Sugars 5g	
Includes 0g Added Sugars	0%
Protein 7g	
Vitamin D 0mcg	0%
Calcium 29mg	3%
Iron 1mg	4%
Potassium 521mg	11%

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

Nutrition Facts

2 servings per container

Serving size 1 cup (237mL)

Amount per serving

Calories **160**

	% Daily Value*
Total Fat 4g	6%
Saturated Fat 0.5g	3%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 340mg	14%
Total Carbohydrate 24g	8%
Dietary Fiber 8g	32%
Total Sugars 5g	
Includes 0g Added Sugars	0%
Protein 7g	
Vitamin D 0mcg	0%
Calcium 29mg	3%
Iron 1mg	4%
Potassium 521mg	11%

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

Take a look at the two soup labels.

First, think about how much soup you would usually consume. There are two servings per can, but would you eat the entire can or just half of it?

Many people would eat the whole can, and if that's you, you would want to double all of the calorie and nutrient information.

Both soups provide 160 calories per one-cup serving, or 320 calories for the entire can.

Smart Label Reading

Nutritional Information (Nutrition Facts)

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Limit these nutrients:

Keep the intake of saturated fat, trans fat and cholesterol as low as possible in a nutritionally balanced diet.

Increase these nutrients:

Eat more fiber, vitamins and minerals.

Total Fat 12g	**18%**
Saturated Fat 3g	**15%**
Trans Fat 3g	
Cholesterol 30mg	**10%**
Sodium 470mg	**20%**

Dietary Fiber 0g	**0%**

Vitamin D 2mcg	10%
Calcium 200mg	15%
Iron 8mg	45%
Potassium 235mg	6%

Nutritional Information (Nutrition Facts)

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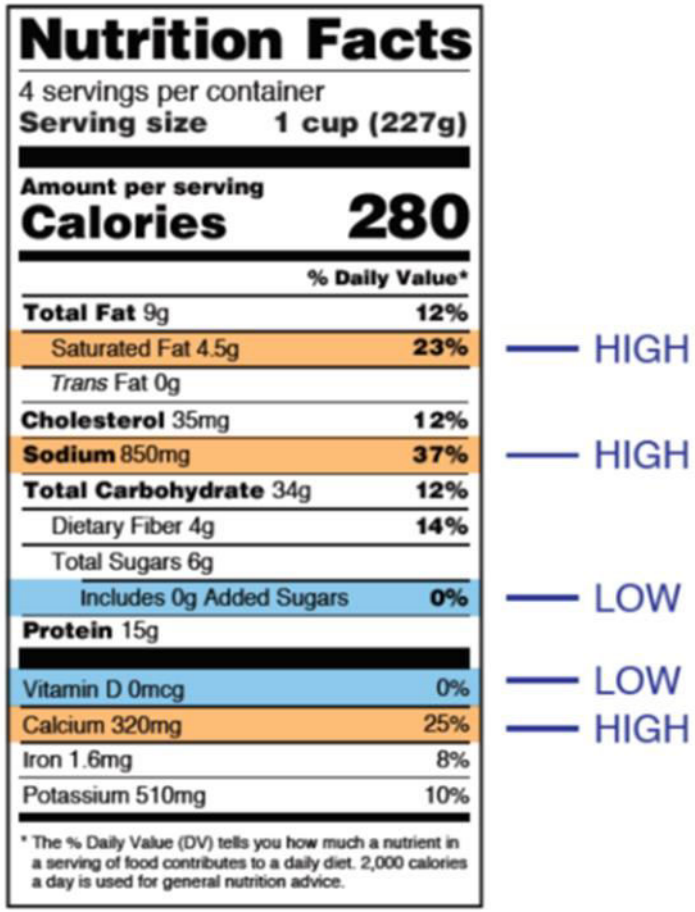
Sample Label for Frozen Lasagna



Nutrition Facts

4 servings per container
Serving size **1 cup (227g)**

Amount per serving
Calories **280**

	% Daily Value*	
Total Fat 9g	12%	
Saturated Fat 4.5g	23%	HIGH
Trans Fat 0g		
Cholesterol 35mg	12%	
Sodium 850mg	37%	HIGH
Total Carbohydrate 34g	12%	
Dietary Fiber 4g	14%	
Total Sugars 6g		
Includes 0g Added Sugars	0%	LOW
Protein 15g		
Vitamin D 0mcg	0%	LOW
Calcium 320mg	25%	HIGH
Iron 1.6mg	8%	
Potassium 510mg	10%	

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

What are the % daily values?

Found on food labels
Apply to the "average" person eating 2,000 calories a day

% Daily Value puts nutrients on a scale from 0% to 100%.

This scale tells you if there is a little or a lot of a nutrient in one serving of a packaged food.

If < 5% this food is low in _____.
If > 20% this food is high in _____.

Using percent Daily Value (% Daily Value)

Use % Daily Value to find out if there is a little or a lot of a nutrient in one serving of a packaged food.

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What is % Daily Value?

% Daily Value puts nutrients on a scale from 0% to 100%. This scale tells you if there is a *little* or a *lot* of a nutrient in one serving of a packaged food.

What is a *little* and what is a *lot*?

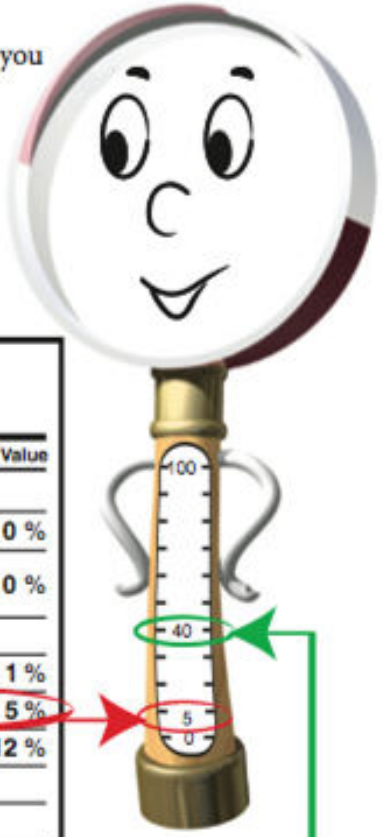
Let's look at the % Daily Value on the Nutrition Facts table for this package of vegetables:

- One serving has 5% Daily Value for carbohydrate. This is a *little* because it is *low* on the scale.
- One serving has 40% Daily Value for Vitamin A. This is a *lot* because it is *high* on the scale.

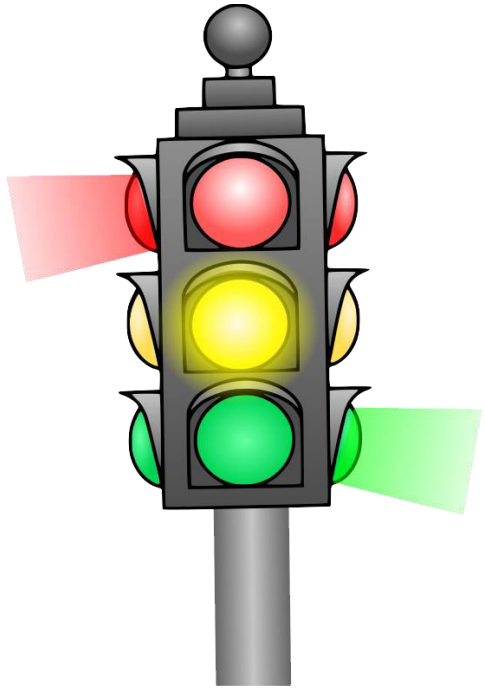
Nutrition Facts

Per 1/2 cup (85 g)

Amount	% Daily Value
Calories 60	
Fat 0 g	**0** %
Saturated 0 g + Trans 0 g	**0** %
Cholesterol 0 mg	
Sodium 35 mg	**1** %
Carbohydrate 14 g	**5** %
Fibre 3 g	**12** %
Sugars 0 g	
Protein 3 g	
Vitamin A 40 %	Vitamin C 6 %
Calcium 2 %	Iron 8 %



Traffic Light Labels



UNDERSTANDING THE TRAFFIC LIGHT SYSTEM

	Sugars	Fat	Saturates	Salt
What is **HIGH** per 100g?	Over 15g	Over 20g	Over 5g	Over 1.5g
What is **MEDIUM** per 100g?	Between 5g and 15g	Between 3g and 20g	Between 1.5g and 5g	Between 0.3g and 1.5g
What is **LOW** per 100g?	5g and below	3g and below	1.5g and below	0.3g and below

Traffic Light Labels in the UAE

The UAE's labeling system will require the contents of **fat**, **saturated fats**, **sugars** and **salts** in the pre-packaged food to be shown by using **traffic lights**.

The traffic light system is to be printed on the **front side** of the packaging making it easier for consumers to see which nutrients are low and high in the food.

ABU DHABI, 11th December 2021 - the UAE Cabinet has amended the requirement for nutritional labeling (Nutritional labeling of prepackaged products as traffic light colors) from **mandatory to voluntary**.

Under the standard, which was scheduled to become mandatory in early January 2022, manufacturers were required to provide a color-coded system of nutritional data in all pre-packed food products.

Tips About Traffic Light Colors

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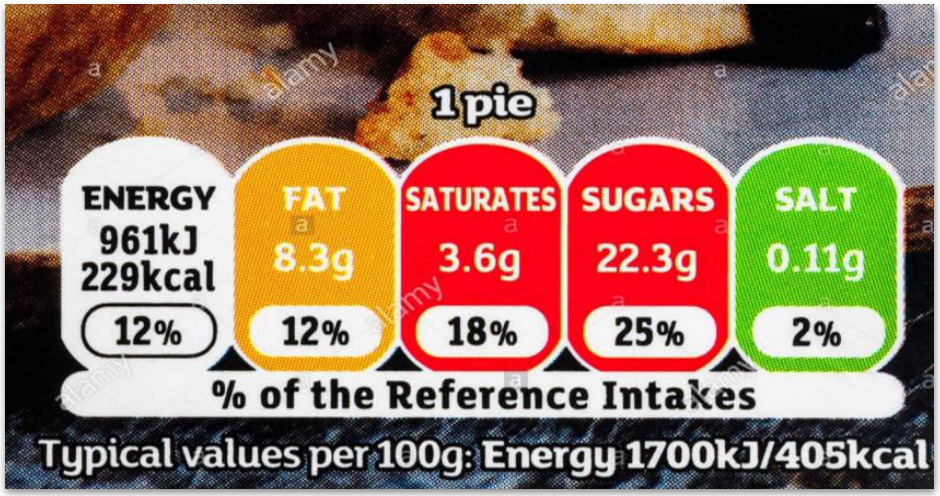
It is a label that can be placed on pre-packaged food and drinks to show nutritional information with details on **fat**, **saturated fat**, **sugars** and **salt content**. The information can be for either **100g** or **100mL** of the food or drink or per portion size. The percentages on the traffic light labels are called "**percentage reference intakes**." They indicate how the amount of fat, saturates, sugars and salt fit into your daily recommended diet.

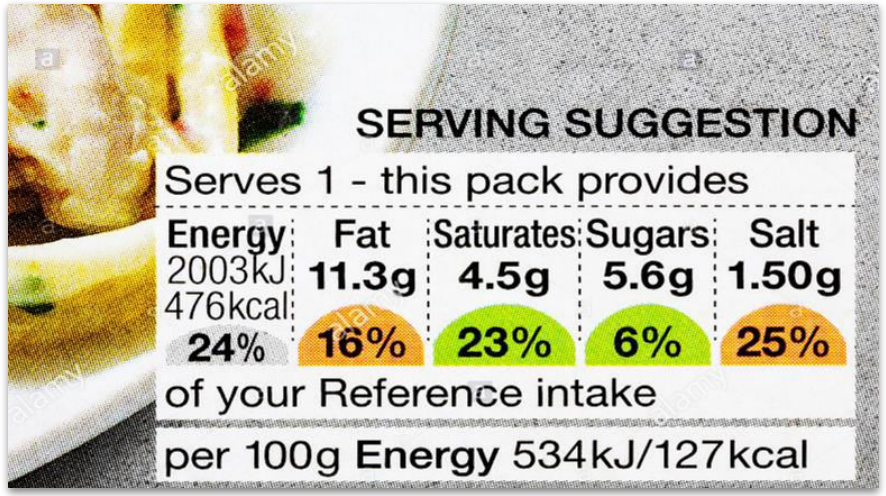
Green means the food is low in the nutrient. The more green light a label displays, the healthier the food choice is

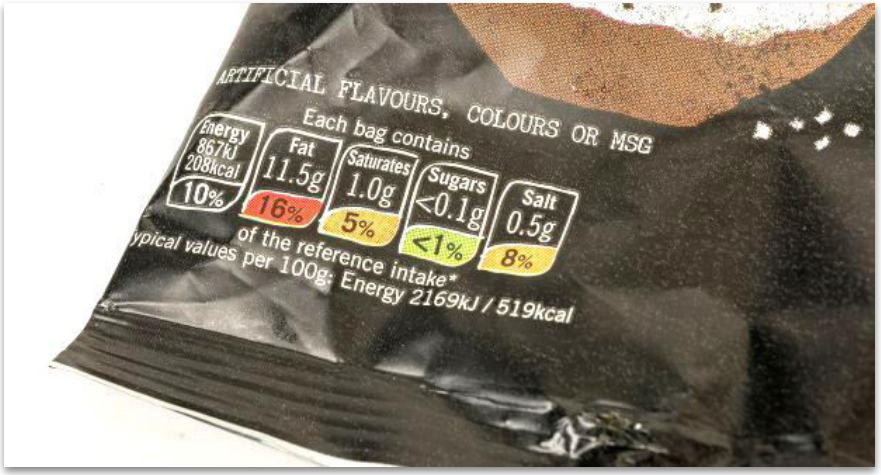
Amber means the food is neither high or low in the nutrient. It is an okay choice most of the time

Red means the food contains high amounts of the nutrient and you should try to eat it less often or in smaller amounts

Traffic Light Labels







Nutrition Information

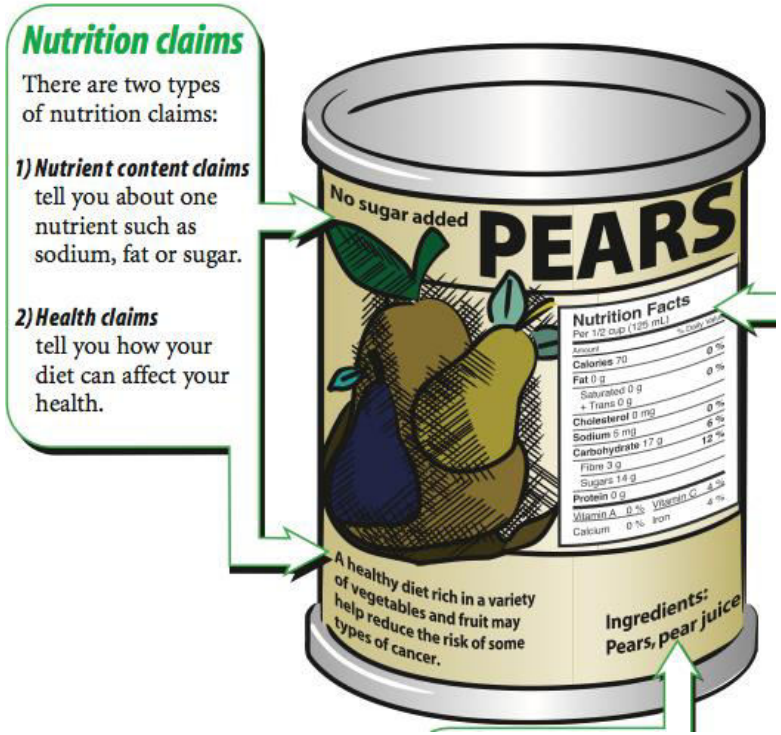
Nutrition Content Claims: Used to describe the level of a nutrient in a food

Claim	Requirements that must be met before using the claim in food labeling
Fat-Free	Less than 0.5 grams of fat per serving, with no added fat or oil
Low Fat	3 grams or less of fat per serving
Less Fat	25% or less fat than the comparison food
Saturated Fat Free	Less than 0.5 grams of saturated fat and trans-fatty acids per serving
Reduced Calorie	25% or fewer calories per serving than the comparison food

Health Claims

It means the relationship between nutrients, daily diet and a specific disease, such as the relationship between:

- Fat and cancer
- Cholesterol and coronary heart disease
- Sodium and hypertension



Reliable Health Claims

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These claims of potential health benefits are well-supported by research, but other similar-sounding claims may not be.

- Calcium and reduced risk of osteoporosis
- Sodium and reduced risk of hypertension
- Dietary saturated fat and cholesterol and reduced risk of coronary heart disease
- Dietary fat and reduced risk of cancer
- Fiber-containing grain products, fruits, and vegetables and reduced risk of cancer
- Fruits, vegetables, and grain products that contain fiber, particularly soluble fiber, and reduced risk of coronary heart disease
- Fruits and vegetables and reduced risk of cancer
- Folate and reduced risk of neural tube defects
- Sugar alcohols and reduced risk of tooth decay
- Soluble fiber from whole oats and from psyllium seed husk and reduced risk of heart disease
- Soy protein and reduced risk of heart disease
- Whole grains and reduced risk of heart disease and certain cancers
- Plant sterol and plant stanol esters and heart disease
- Potassium and reduced risk of hypertension and stroke

Product Label Comparison

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Product 1

Nutrition Facts
Per burger (85 g)

Amount		% Daily Value
Calories 210		
Fat 18 g		**28** %
Saturated 7 g + Trans 0.5 g		**38** %
Cholesterol 55 mg		
Sodium 330 mg		**14** %
Carbohydrate 1 g		**1** %
Fibre 0 g		**0** %
Sugars 0 g		
Protein 12 g		
Vitamin A	0 %	Vitamin C 0 %
Calcium	2 %	Iron 10 %

Product 2

Nutrition Facts
Per burger (85 g)

Amount		% Daily Value
Calories 123		
Fat 7 g		**17** %
Saturated 3 g + Trans 0.5 g		**17** %
Cholesterol 33 mg		
Sodium 200 mg		**8** %
Carbohydrate 1 g		**1** %
Fibre 0 g		**0** %
Sugars 0 g		
Protein 14 g		
Vitamin A	0 %	Vitamin C 0 %
Calcium	2 %	Iron 12 %

Sometimes it is not as clear which food is the healthier choice.

For example, one product might be low in fat but high in salt while another one may be high in fat but low in salt.

The one you choose will depend on your specific needs and requirements.

Product Label Comparison

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Cereal A

Nutrition Facts

Per 1/2 cup (28 g)

Amount	% Daily Value
Calories 120	
Fat 1 g	2 %
Saturated 0.2 g + Trans 0 g	1 %
Cholesterol 0 mg	
Sodium 170 mg	7 %
Carbohydrate 23 g	8 %
Fibre 7 g	28 %
Sugars 5 g	
Protein 3 g	

Vitamin A	0 %	Vitamin C	0 %
Calcium	2 %	Iron	30 %

Cereal B

Nutrition Facts

Per 3/4 cup (30 g)

Amount	% Daily Value
Calories 120	
Fat 0 g	0 %
Saturated 0 g + Trans 0 g	0 %
Cholesterol 0 mg	
Sodium 150 mg	6 %
Carbohydrate 27 g	9 %
Fibre 1 g	4 %
Sugars 10 g	
Protein 2 g	

Vitamin A	0 %	Vitamin C	0 %
Calcium	2 %	Iron	30 %

Food Label in UAE

Food label in UAE regulations must contain the following information:

Product and brand name
Ingredients in descending order of proportion
Additives using their “E” number
The origin of all animal fats (should be of Halal origin)
Net content in metric units
Production and expiry dates
Country of origin
Manufacturer’s/exporter’s name and address
Special storage and preparation instructions, if any

E Numbers

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E numbers are number codes for **food additives** that have been assessed for use within the **European Union** (the "E" prefix stands for "Europe").

Classification by numeric range:

- E100–E199 (colours)
- E200–E299 (preservatives)
- E300–E399 (antioxidants, acidity regulators)
- E400–E499 (thickeners, stabilizers, emulsifiers)
- E500–E599 (acidity regulators, anti-caking agents)
- E600–E699 (flavour enhancers)
- E700–E799 (antibiotics)
- E900–E999 (miscellaneous)
- E1000–E1599 (additional chemicals)

Information For Your Interest

Serving Size

Serving sizes are standardized to make it easier to compare similar foods.
They are provided in familiar units, such as cups or pieces, followed by the metric amount, e.g., the number of grams.
The size of the serving on the food package influences the number of calories and all the nutrient amounts listed on the top part of the label.
Pay attention to the serving size, especially how many servings there are in the food package.
In the sample label, one serving of macaroni and cheese equals one cup. If a person eats the whole package, he/she would eat **two cups**. That doubles the calories and other nutrient numbers, including the % Daily Values as shown in the sample label.

Calories (Calories from Fat)

Amount Per Serving	
Calories 250	Calories from Fat 110

Calories provide a measure of how much energy you get from a serving of this food. The calorie section of the label can help in managing weight of a person (i.e. gain, lose, or maintain.)

Remember: The number of servings (portion amount) you consume determines the number of calories you actually eat.

General Guide to Calories per serving:
40 Calories is low
100 Calories is moderate
400 Calories or more is high

Understanding the Footnote on the Bottom of the Nutrition Facts Label

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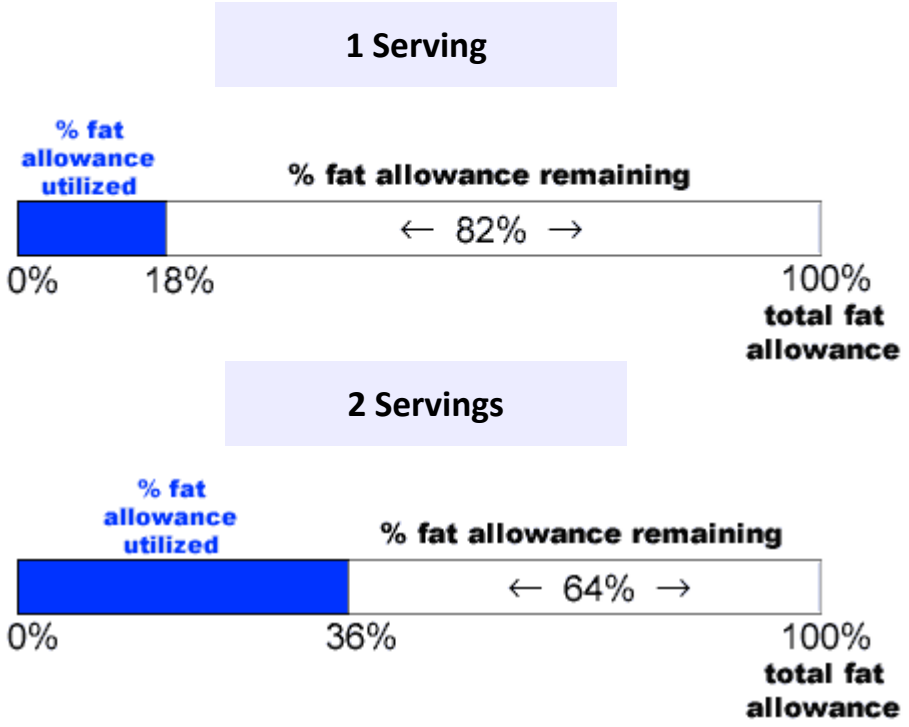
* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

% DV of fat (Daily Value)



Note: Trans fat, Sugars and Protein are not listed as a % DV on the Nutrition Facts label.

The New and Improved Nutrition Facts Label – Key Changes

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1. Servings

The number of "servings per container" and the "Serving Size" declaration have increased and are now in larger and/or bolder type. Serving sizes have been updated to reflect what people actually eat and drink today. For example, the serving size for ice cream was previously 1/2 cup and now is 2/3 cup.

There are also new requirements for certain size packages, such as those that are between one and two servings or are larger than a single serving but could be consumed in one or multiple sittings.

2. Calories

"Calories" is now larger and bolder.

3. Fats

"Calories from Fat" has been removed because research shows the type of fat consumed is more important than the amount.

4. Added Sugars

"Added Sugars" in grams and as a percent Daily Value (%DV) is now required on the label. Added sugars includes sugars that are either added during the processing of foods, or are packaged as such (e.g., a bag of table sugar), and also includes sugars from syrups and honey, and sugars from concentrated fruit or vegetable juices. Scientific data shows that it is difficult to meet nutrient needs while staying within calorie limits if you consume more than 10 percent of your total daily calories from added sugar.

Nutrition Facts

4 servings per container
Serving size **1 cup (227g)**

Amount per serving
Calories **280**

	% Daily Value*
Total Fat 9g	**12%**
Saturated Fat 4.5g	**23%**
Trans Fat 0g	
Cholesterol 35mg	**12%**
Sodium 850mg	**37%**
Total Carbohydrate 34g	**12%**
Dietary Fiber 4g	**14%**
Total Sugars 6g	
Includes 0g Added Sugars	**0%**
Protein 15g	
Vitamin D 0mcg	0%
Calcium 320mg	25%
Iron 1.6mg	8%
Potassium 510mg	10%

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

5. Nutrients

The lists of nutrients that are required or permitted on the label have been updated. Vitamin D and potassium are now required on the label because Americans do not always get the recommended amounts. Vitamins A and C are no longer required since deficiencies of these vitamins are rare today. The actual amount (in milligrams or micrograms) in addition to the %DV must be listed for vitamin D, calcium, iron, and potassium.

The daily values for nutrients have also been updated based on newer scientific evidence. The daily values are reference amounts of nutrients to consume or not to exceed and are used to calculate the %DV.

6. Footnote

The footnote at the bottom of the label has changed to better explain the meaning of %DV. The %DV helps you understand the nutrition information in the context of a total daily diet.

Additional Health Claims

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No preservatives:
Contains no preservatives (natural/chemical)

No preservatives added:
No chemical preservative added, but may contains natural preservatives.

High fiber:
5g or more per serving *(Foods making high-fiber claims must meet the definition for low fat, or the level of total fat must appear next to the high-fiber claim)*