

Reading labels

Being able to read and understand food labels is key to living a healthy lifestyle. The following label-building skills are intended to make it easier for you to use nutrition labels to make quick, informed food choices that contribute to a healthy diet.

Macaroni and cheese

① **Start Here** →

Nutrition Facts
 Serving Size 1 cup (228g)
 Servings Per Container 2

② **Check Calories**

Amount Per Serving
Calories 250 **Calories from Fat** 110

③ **Limit these Nutrients**

	% Daily Value*
Total Fat 12g	18%
Saturated Fat 3g	15%
Trans Fat 3g	
Cholesterol 30mg	10%
Sodium 470mg	20%
Total Carbohydrate 31g	10%

⑥

Quick Guide to % DV

④ **Get Enough of these Nutrients**

Dietary Fiber 0g	0%
Sugars 5g	
Protein 5g	
Vitamin A	4%
Vitamin C	2%
Calcium	20%
Iron	4%

• 5% or less is Low

• 20% or more is High

⑤ **Footnote**

* 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

1. The serving size:

The first place to start when you look at the Nutrition Facts label is the serving size and the number of servings in the package. 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.

2. Calories

Calories provide a measure of how much energy you get from a serving of this food. Many people consume more calories than they need without meeting recommended intakes for a number of nutrients. The calorie section of the label can help you manage your weight.

In the example, there are 250 calories in one serving of this macaroni and cheese. How many calories from fat are there in ONE serving? Answer: 110 calories, which means almost half the calories in a single serving come from fat. What if you ate the whole package content? Then, you would consume two servings, or 500 calories, and 220 would come from fat.

3. & 4. Nutrients

Look at the top of the nutrient section in the sample label. It shows you some key nutrients that impact on your health and separates them into two main groups:

- **3. Limit These Nutrients**

The nutrients listed first are the ones people generally eat in adequate amounts, or even too much. They are identified in yellow as **Limit these Nutrients**. Eating too much fat, saturated fat, *trans* fat, cholesterol, or sodium may increase your risk of certain chronic diseases, like heart disease, some cancers, or high blood pressure.

Important: Health experts recommend that you keep your intake of saturated fat, *trans* fat and cholesterol as low as possible as part of a nutritionally balanced diet.

- **4. Get Enough of These**

Most people don't get enough dietary fibre, vitamin A, vitamin C, calcium, and iron in their diets. They are identified in blue as **Get Enough of these Nutrients**. Eating enough of these nutrients can improve your health and help reduce the risk of some diseases and conditions. For example, getting enough calcium may reduce the risk of osteoporosis, a condition that results in brittle bones as one ages. Eating a diet high in dietary fibre promotes healthy bowel function. Additionally, a diet rich in fruits, vegetables, and grain products that contain dietary fibre, particularly soluble fibre, and low in saturated fat and cholesterol may reduce the risk of heart disease.

5. Understanding the Footnote on the Bottom of the Nutrition Facts Label

Note the * used after the heading "%Daily Value" on the Nutrition Facts label. It refers to the Footnote in the lower part of the nutrition label, which tells you "%DVs are based on a 2,000 calorie diet". This statement must be on all food labels. But the remaining information in the full footnote may not be on the package if the size of the label is too small. When the full footnote does appear, it will always be the same. It doesn't change from product to product, because it shows recommended dietary advice for all people - it is not about a specific food product.

Look at the amounts circled in red in the footnote--these are the Daily Values (DV) for each nutrient listed and are based on public health experts' advice. DVs are recommended levels of intakes. DVs in the footnote are based on a 2,000 or 2,500 calorie diet.

6. The Percent Daily Value (%DV)

The % Daily Values (%DVs) are based on the Daily Value recommendations for key nutrients but only for a 2,000 calorie daily diet.

The %DV helps you determine if a serving of food is high or low in a nutrient. Note: a few nutrients, like *trans* fat, do not have a %DV--they will be discussed later.

Do you need to know how to calculate percentages to use the %DV? No, the label (the %DV) does the math for you. It helps you interpret the numbers (grams and milligrams) by putting them all on the same scale for the day (0-100%DV). The %DV column doesn't add up vertically to 100%. Instead each nutrient is based on 100% of the daily requirements for that nutrient (for a 2,000 calorie diet). This way you can tell high from low and know which nutrients contribute a lot, or a little, to your daily recommended allowance (upper or lower).

Nutrients without a % DV: *Trans* Fats, Protein, and Sugars:

Note that *Trans* fat, Sugars and Protein do not list a % DV on the Nutrition Facts label.

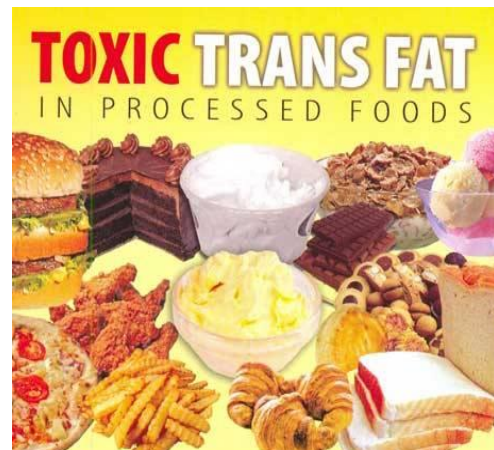
Trans Fat: Experts could not provide a reference value for *trans* fat nor any other information that FDA believes is sufficient to establish a Daily Value or % DV. Scientific reports link *trans* fat (and saturated fat) with raising blood LDL ("bad") cholesterol levels, both of which increase your risk of coronary heart disease.

Important: Health experts recommend that you keep your intake of saturated fat, *trans* fat and cholesterol as low as possible as part of a nutritionally balanced diet.

Protein: A % DV is required to be listed if a claim is made for protein, such as "high in protein". Otherwise, unless the food is meant for use by infants and children under 4 years old, none is needed. Current scientific evidence indicates that protein intake is not a public health concern for adults and children over 4 years of age.

Sugars: No daily reference value has been established for sugars because no recommendations have been made for the total amount to eat in a day. Keep in mind, the sugars listed on the Nutrition Facts label include naturally occurring sugars (like those in fruit and milk) as well as those added to a food or drink. Check the ingredient list for specifics on added sugars.

Limit your sugar intake to no more than 6 teaspoons (25 grams) a day!



Top Food Additives to avoid

1. Artificial sweeteners

Aspartame, (E951) more popularly known as Nutrasweet and Equal, is found in food labelled "diet" or "sugar free". Aspartame is a neurotoxin and carcinogen. It is known to erode intelligence and affect short-term memory and may lead to a wide variety of ailments including brain tumour, lymphoma, diabetes, multiple sclerosis, Parkinson's, Alzheimer's, chronic fatigue, depression, headaches among others.

2. High Fructose Corn Syrup

HFCS is a highly-refined artificial sweetener which has become the number one source of calories in America. It is found in almost all processed foods. It increases your LDL (bad) cholesterol levels, and contributes to the development of diabetes and tissue damage amongst others.

3. Monosodium Glutamate (MSG / E621)

MSG is an amino acid used as a flavour enhancer in soups, salad dressings, chips, frozen meals, seasonings, lunch meats and many restaurant foods. MSG is known as an excitotoxin and affects the neurological pathways of the brain. Studies show that regular consumption may result in depression, disorientation, eye damage, fatigue, headache and obesity amongst others.

4. Sodium Nitrate / Sodium Nitrite

Sodium nitrate is used as a preservative, colouring and flavouring in bacon, ham, lunch meats, hot dogs, corned beef, smoked fish and other processed meats. This ingredient is highly carcinogenic and can wreak havoc on a number of internal organs – the liver and pancreas in particular. The USDA tried to ban this additive in the 1970's but was vetoed by food manufacturers who complained they had no alternative. Sodium nitrates have been classified as 'probably carcinogenic to humans' by the International Agency for Research of Cancer (IARC).

5. Food Dyes

Studies show that artificial colourings which are found in soft drinks, fruit juices, salad dressings, candy, cereals, ice cream, cheese, bakery products etc. may contribute to behavioural problems and hyperactivity in children and bring on allergic reactions. Animal studies have linked food colourings to cancer.

Following is a list of food colours to look out for:

- E102 Tartrazine (yellow) - banned in UK
- E104 Quinoline (yellow) - banned in US, Canada, Japan, UK
- E110 Sunset yellow - banned in the UK
- E122 Azorubine or Carmoisine (red) - banned in the US, Canada, Japan, UK
- E123 Amaranth (purple) - banned in the US
- E124 Ponceau (red) - banned in the US, Canada, UK
- E129 Allura red - banned in the UK
- E142 (green) - banned in the US, Canada
- E151 Brilliant black – banned in the US, Canada
- E153 Carbon black – banned in the US, Canada
- E155 (brown) – banned in the US, Canada

6. BHA and BHT (E320)

Butylated hydroxyanisole (BHA) and butylated hydroxytoluene (BHT) are preservatives found in cereals, chewing gum, potato chips and vegetable oils. This common preservative keeps foods from changing colour, changing flavour or becoming rancid. Effects the neurological system of the brain, alters behaviour and has potential to cause cancer.

Types of Food Ingredients

The following summary lists the types of common food ingredients, why they are used and some examples of the names that can be found on product labels. Some additives are used for more than one purpose.

Types of Ingredients	What They Do	Examples of Uses	Names Found on Product Labels
Preservatives	Prevent food spoilage from bacteria, molds, fungi, or yeast (antimicrobials); slow or prevent changes in colour, flavour, or texture and delay rancidity (antioxidants); maintain freshness	Fruit sauces and jellies, beverages, baked goods, cured meats, oils and margarines, cereals, dressings, snack foods, fruits and vegetables	Ascorbic acid, citric acid, sodium benzoate, calcium propionate, sodium erythorbate, sodium nitrite, calcium sorbate, potassium sorbate, BHA, BHT, EDTA, tocopherols (Vitamin E)
Sweeteners	Add sweetness with or without the extra calories	Beverages, baked goods, confections, table-top sugar, substitutes, many processed foods	Sucrose (sugar), glucose, fructose, sorbitol, mannitol, corn syrup, high fructose corn syrup, saccharin, aspartame, sucralose, acesulfame potassium (acesulfame-K), neotame
Colour Additives	Offset colour loss due to exposure to light, air, temperature extremes, moisture and storage conditions; correct natural variations in colour; enhance colours that occur naturally; provide colour to colourless and "fun" foods	Many processed foods, (candies, snack foods margarine, cheese, soft drinks, jams/jellies, gelatines, pudding and pie fillings)	FD&C Blue Nos. 1 and 2, FD&C Green No. 3, FD&C Red Nos. 3 and 40, FD&C Yellow Nos. 5 and 6, Orange B, Citrus Red No. 2, annatto extract, beta-carotene, grape skin extract, cochineal extract or carmine, paprika oleoresin, caramel colour, fruit and vegetable juices, saffron (Note: Exempt colour additives are not required to be declared by name on labels but may be declared simply as colourings or colour added)
Flavours and Spices	Add specific flavours (natural and synthetic)	Pudding and pie fillings, gelatine dessert mixes, cake mixes, salad	Natural flavouring, artificial flavour, and spices

Types of Ingredients	What They Do	Examples of Uses	Names Found on Product Labels
		dressings, candies, soft drinks, ice cream, BBQ sauce	
Flavour Enhancers	Enhance flavours already present in foods (without providing their own separate flavour)	Many processed foods	Monosodium glutamate (MSG), hydrolyzed soy protein, autolyzed yeast extract, disodium guanylate or inosinate
Fat Replacers (and components of formulations used to replace fats)	Provide expected texture and a creamy "mouth-feel" in reduced-fat foods	Baked goods, dressings, frozen desserts, confections, cake and dessert mixes, dairy products	Olestra, cellulose gel, carrageenan, polydextrose, modified food starch, microparticulated egg white protein, guar gum, xanthan gum, whey protein concentrate
Nutrients	Replace vitamins and minerals lost in processing (enrichment), add nutrients that may be lacking in the diet (fortification)	Flour, breads, cereals, rice, macaroni, margarine, salt, milk, fruit beverages, energy bars, instant breakfast drinks	Thiamine hydrochloride, riboflavin (Vitamin B ₂), niacin, niacinamide, folate or folic acid, beta carotene, potassium iodide, iron or ferrous sulphate, alpha tocopherols, ascorbic acid, Vitamin D, amino acids (L-tryptophan, L-lysine, L-leucine, L-methionine)
Emulsifiers	Allow smooth mixing of ingredients, prevent separation. Keep emulsified products stable, reduce stickiness, control crystallization, keep ingredients dispersed, and to help products dissolve more easily	Salad dressings, peanut butter, chocolate, margarine, frozen desserts	Soy lecithin, mono- and diglycerides, egg yolks, polysorbates, sorbitan monostearate
Stabilizers and Thickeners, Binders, Texturizers	Produce uniform texture, improve "mouth-feel"	Frozen desserts, dairy products, cakes, pudding and gelatine mixes, dressings, jams and jellies, sauces	Gelatine, pectin, guar gum, carrageenan, xanthan gum, whey
pH Control Agents and acidulants	Control acidity and alkalinity, prevent spoilage	Beverages, frozen desserts, chocolate, low acid canned foods, baking powder	Lactic acid, citric acid, ammonium hydroxide, sodium carbonate
Leavening Agents	Promote rising of baked goods	Breads and other baked goods	Baking soda, monocalcium phosphate, calcium carbonate
Anti-caking agents	Keep powdered foods free-flowing, prevent moisture absorption	Salt, baking powder, confectioner's sugar	Calcium silicate, iron ammonium citrate, silicon dioxide
Humectants	Retain moisture	Shredded coconut, marshmallows, soft	Glycerine, sorbitol

Types of Ingredients	What They Do	Examples of Uses	Names Found on Product Labels
		candies, confections	
Yeast Nutrients	Promote growth of yeast	Breads and other baked goods	Calcium sulphate, ammonium phosphate
Dough Strengtheners and Conditioners	Produce more stable dough	Breads and other baked goods	Ammonium sulphate, azodicarbonamide, L-cysteine
Firming Agents	Maintain crispness and firmness	Processed fruits and vegetables	Calcium chloride, calcium lactate
Enzyme Preparations	Modify proteins, polysaccharides and fats	Cheese, dairy products, meat	Enzymes, lactase, papain, rennet, chymosin
Gases	Serve as propellant, aerate, or create carbonation	Oil cooking spray, whipped cream, carbonated beverages	Carbon dioxide, nitrous oxide

Sources: FDA (US Food and Drug Administration), EFSA (European Food Safety Authority), FSA (Food Standards Agency UK)