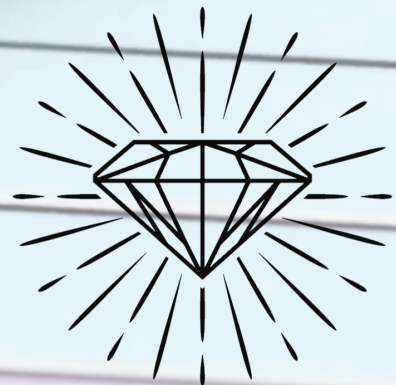


LABELS **DEMYSTIFIED**



Be Well

A woman with dark hair, wearing a white t-shirt, is looking down at a wicker basket in a grocery store. The background is slightly blurred, showing shelves with various food items.

Perhaps the most important, and often most confusing, aspect of eating healthfully is knowing which food is nutritious & what to avoid. Labels on foods include a lot of information, and as a consumer, it can be difficult to figure out what they mean, and which is most important. Food labels can also be misleading.

Big food companies and marketing departments often tout foods as “natural” or “all natural”, “humane”, or “healthy”. But the reality is 70% of packaged foods are actually filled with hidden sugars, most are contaminated with pesticides, and more than 80% contain GMOs.^[1] ^[2]

We see labels depicting happy chickens and cows frolicking in pastures, when the brutal reality is that the vast majority of meat, eggs, and dairy products sold today come from animals that never saw the sun or touched a blade of grass in their lives — even on packages that are certified “USDA Organic.”^[3] And then there are the nutrition facts labels. According to a Nielsen report, nearly 60% of consumers worldwide have difficulty understanding nutritional facts on food packaging.^[4]

So how can you cut through the confusion to know what labels mean, what they don’t, which ones matter to you, and which ones you can actually trust? We’ve put together this comprehensive guide to decode food labels and health claims, so you can know which are just marketing hype and which have real meaning. We’ve also included important information on how to read nutrition facts labels to help you understand what’s really in your food. You deserve the knowledge that will empower you to make the healthiest choices for yourself, your loved ones, and for your world.

Note: For the purpose of simplicity, we chose to focus most of this report on labels and claims used widely in the United States. Parts will have relevance in other countries, too. For now this only covers the U.S.-centric.

Part 1:
Food Packaging Labels and Symbols

Growing Methods

If you're like most people, you've never met most of the farmers who grow your food.

But the way your food is grown has a huge impact on your life and on your world. It can either boost your health and care for the environment, or it can hurt them.

If you want to avoid pesticide exposure or genetically modified organisms (GMOs), contribute to more sustainable agriculture, show respect to farm workers and animals, and oppose environmental contamination, then one important step is to look for foods that are certified organic.

If buying organic is out of your price range, our advice is to not let that stop you from eating fresh vegetables and fruits! If you can, consider buying local or at your neighborhood farmer's market to support your local economy. It has a lower carbon footprint and it connects you to your community.

But eating consciously takes a lot more than just looking for a certified organic label. Here are some of the most popular labels in use today. In this report, you're about to find out what they really do (and don't!) mean.



USDA Organic

Produce can be called organic if it's certified to have been grown on soil that had no prohibited substances applied for three years prior to harvest. Prohibited substances include most synthetic fertilizers and pesticides.

In instances when a grower has to use a synthetic substance to achieve a specific purpose, the substance must first be approved according to criteria that examine its effects on human health and the environment.

The USDA's National Organic Program (NOP) has strict production and labeling requirements for organic products. The process is overseen by a USDA National Organic Program-authorized certifying agent.^[5] In order to feature the USDA Certified Organic label, products must be produced using only allowed substances from the National List. If a product is 100% organic, all

ingredients

must be certified organic and any processing aids must be organic. In addition to displaying the USDA Organic seal, the package may make 100% organic claims. A product can still use the organic seal so long as 95% of the ingredients are certified organic (with non-organic ingredients making up a combined total of 5% or less of the content). The USDA

also allows products to make "made with" organic claims if the product is made from at least 70% certified organic ingredients. The package may state "made with organic (insert up to three ingredients or ingredient categories)." However, they cannot use the USDA Organic seal, represent the

finished product as organic, or state "made with organic ingredients."^[6]

Meat, dairy and eggs

with this label come from animals that were raised on organic, non-GMO feed and that are free of hormones and antibiotics. All organically grown food is also non-GMO.^[7] However, there is no requirement that organic meat, dairy, or egg products come from animals that have been treated humanely. (For more information on the meaning and limitations of organic animal products, see the Animal Treatment section.)

Oregon Tilth Certified Organic^[8] and Certified CCOF Organic^[9] are two popular third-party organic certifiers that have their own labels. Their labels will appear on a package in addition to the USDA Certified Organic label, so long as the product meets the USDA organic labeling requirements.^{[10] [11]}

Quality Assurance International (QAI) is another organic certifier. In fact, it's the largest for-profit organic certifier in North America. However, QAI has been accused of certifying dairy operations that confine thousands of cows in feedlot-like conditions with minimal time grazing on pasture. Other products certified by QAI, such as organic infant formula, have contained synthetic ingredients not approved by USDA organic standards.^[12]



Non-GMO Project Verified



Genetically modified organisms, or GMOs, are in more than 80% of the foods on supermarket shelves.^[13] The Non-GMO

Project Product Verification Program is North America's only third-party verification for non-GMO food and products.^[14]

The testing process ranges from 3-6 months and must meet the program's standards.^[45] Since 2012, sales of certified non-GMO foods have gone from nothing to over \$20 billion in the U.S. alone, with over 50,000 products receiving certification.^[16]^[17] If avoiding GMOs is important to you, look for the Non-GMO Project's butterfly. However, keep in mind that just because a product is Non-GMO certified, it does not necessarily mean it is organic or pesticide-free.^[18]

Glyphosate Residue Free and Glyphosate in Transition

Glyphosate is the main active ingredient in Monsanto's Roundup line of pesticides and has been found to be an endocrine disruptor and a probable carcinogen.^[19]



The Detox Project's Glyphosate Residue Free certification verifies products do not contain the herbicide glyphosate or the glyphosate metabolite AMPA.^[20] The label is relatively new, but there are many products that have been certified.^[21]



They also offer a second certification, Glyphosate in Transition, which allows food manufacturers to inform customers they are taking steps to remove glyphosate from their supply chain.

In order to use the label, Glyphosate In Transition products have to show a low detection level in the first third-party testing and then have to reduce this level to 'Glyphosate Residue Free' within a 2-year period.^[22]

Produced or Partially Produced with Genetic Engineering



Some companies such as Mars, General Mills, and Campbell's Soup have chosen to be transparent and include this label on the back of their products

that use GMO ingredients.[\[23\]](#)

The label can usually be found in bold lettering below the nutrition facts label. So why aren't more companies transparent and informing consumers about what's in their food?

Opponents of GMO labeling claim labels would mislead consumers and that the extra labeling and production costs could be passed on to customers, but it's simply not true.[\[24\]](#)

Food manufacturers are constantly changing their labels to highlight product innovations or to make health claims, with the average refresh cycle for a label being a year.

Adding the words "Produced with Genetic Engineering" or "Partially Produced with Genetic Engineering" would add as much to the cost of making food as adding the words "can help reduce cholesterol" — nothing.[\[25\]](#)

Food Alliance Certified

The Food Alliance is a third-party certification of sustainable agriculture and food handling practices.



For crop operations to be certified, the standard addresses: soil and water conservation; nutrient management; wildlife habitat and biodiversity conservation; integrated pest, disease, and weed management and pesticide risk reduction; safe and fair working conditions; and no GMOs or plant material may be sold.[\[26\]](#)

Rainforest Alliance Certified

The Rainforest Alliance's frog logo indicates that a farm, forest, or tourism enterprise has been audited to meet standards that require environmental, social, and economic sustainability.[\[27\]](#)



While the Rainforest Alliance provides solutions to the problem of deforestation, they are often criticized for certifying coffee products that can contain as little as 30% certified content and for offering no minimum or guaranteed price to producers.[\[28\]](#)

Because coffee accounts for almost half of the total exports from tropical countries, coffee production has a massive impact on the lives and livelihoods of hundreds of millions of families and farmers.[\[29\]](#)

Regrettably, many of them are living in poverty. Therefore, the kinds of coffee we choose have a profound impact on the world we shape for future generations.

Bird Friendly



The Smithsonian's National Zoo and Conservation Biology Institute's Migratory Bird Center conserves bird species through the world's first and only

scientifically backed shade-grown coffee certification: Smithsonian Bird Friendly®.[30]

This label can be found on coffee and means it was grown under biodiverse shade that provides habitat for migratory songbirds and other wildlife, sequesters carbon, and fights climate change.

Certification standards, developed by the Smithsonian Migratory Bird Center, cover everything from canopy height to insect biodiversity to protect the wildlife that lives where coffee is grown. Bird Friendly coffees are also certified organic, meaning they are grown without pesticides.[31]

Demeter Biodynamic

Demeter is the oldest ecological certification organization in the world, active in fifty countries around the globe.



The Demeter Biodynamic Farm Standard reflects the Biodynamic principle of the farm as a living organism: self-contained, self-sustaining, following the cycles of nature.[32]

All of the organic requirements for certification under the National Organic Program are required for Biodynamic certification; however, the Demeter standard is much more extensive, with stricter requirements around imported fertility, greater emphasis on on-farm solutions for disease, pest, and weed control, an in depth specifications around water conservation and biodiversity.[33]

Certified Naturally Grown

Certified Naturally Grown (CNG) is a peer-review certification tailored for farmers and beekeepers who market directly through CSAs, farmers markets, and local food businesses.



Many of them may be functionally organic, but choosing to opt out of the fees and regulatory requirements of USDA organic



certification. CNG farmers don't use any synthetic herbicides, pesticides, fertilizers, or genetically modified organisms. CNG livestock are raised mostly on pasture and with space for freedom of movement. Feed must be grown without synthetic inputs or genetically modified seeds. While CNG standards for produce and livestock certification are based on the standards of the National Organic Program, farmers can't use the word organic to market their products unless they are USDA certified, because doing so would be breaking the law.[\[34\]](#)

Bee Better Certified



Bees, and other pollinators like butterflies, play a big role in the global agriculture industry. Over 30% of the foods and beverages we consume daily rely on or benefit from a pollinator.[\[35\]](#)

Unfortunately, over the past decade beekeepers, primarily in the U.S. and Europe, have been reporting annual losses of 30% or higher, far above than what is normal or sustainable.[\[36\]](#)

Why is this happening? Habitat loss, alteration, and fragmentation, as well as diseases are all contributing factors; however, an ever growing and ever more compelling body of research has linked the use of a class of pesticides known as neonicotinoids to serious declines in bee populations.[\[37\]](#)[\[38\]](#)

New studies have confirmed that neonicotinoid pesticides, derived from nicotine, are killing bees. While they do not wipe out bee colonies outright, the pesticides end up killing them over extended periods of time. The pesticides also threaten bee queens in particular — which means colonies have lower reproductive rates.[\[39\]](#)

The Bee Better Certified seal indicates that certified ingredients were grown in ways that support bees, butterflies, and other beneficial insects. The program works with farmers to develop habitat and mitigate impacts from the use of pesticides.[\[40\]](#)



Animal Treatment

Today, animals are being subjected to often torturous conditions in the production of meat, dairy products, and eggs.^[41] You don't have to be a vegetarian or an animal rights activist to find these conditions appalling and to want animals that are raised for food to be treated with respect. However, just because a meat or dairy company advertises their foods as humane doesn't mean that they are.

A Note About European Animal Welfare Standards

The European Union as a whole has many broad animal welfare standards, but its only distinguishing labels are used for laying hens.

Europe provides only two official categories: Enriched Cages, where laying hens have at least 750 cm² of cage area per hen, and Alternative Systems, where the stocking density does not exceed nine laying hens per m²

of usable area, with at least one nest for every seven hens—and adequate perches.

Whichever system is used, all hens must have a nest, perching space, litter to allow pecking and scratching, and unrestricted access to a feed trough.^[42]





Cage Free

“Cage Free” Eggs

In a caged housing system, laying hens are granted just enough space to stand upright, but not enough space to stretch wings or move around.

The industry standard for space per bird in a cage is generally slightly more than 8 inches by 8 inches – that’s less than the size of a sheet of paper.

This is where most most chicken eggs come from. Eggs in cartons marked “cage free” come from hens who were “never confined to a cage and have had unlimited access to food, water, and the freedom to roam.”^[43]

However, this does not mean they had access to the outdoors, or that they had much more space than caged birds.

Instead of packing nine birds into a tiny space, it may simply mean that now there are thousands packed into a much larger space. The U.S. FDA has no regulatory definition of “cage free” on egg carton labels.^[44]

Compliance with USDA’s definition of “cage free” is not verified on the farm by the government or any independent third party.^[45]

Cartons labeled with a USDA Organic seal, Certified Humane, and Animal Welfare Approved are all verified and always cage-free.^[46]

If cage-free eggs come with a certified humane status given by Humane Farm Animal Care, that means the hens were given at least 1.5 square feet of space each.

That’s not a lot, considering that the average wingspan for a grown chicken is about 3 feet—if, that is, they are ever given enough room to open their wings. Can you imagine living your entire life in a room so crowded that you can never put your arms to your sides? **“Cage Free” Chicken A**

“cage free” claim on poultry adds zero value because meat chickens aren’t raised in cages. Instead, they are raised in large, open structures known as “grow out houses.” The houses usually hold thousands

or tens of thousands of chickens at a time and typically provide less than one square foot of space per bird.^[47]

These birds typically never see the sun or breathe fresh air their entire lives.





Free Range

Although the USDA applies an informal guideline to applications requesting use of “free range” or “free roaming” claims, no legal definition exists for these claims when used on any food product.

The only requirement is that animals must be given continuous, free access to the outdoors. The “free range” claim doesn’t state the size and number of exits, the area of the outdoor space, or presence of vegetation. The USDA

also doesn’t conduct inspections to verify the claims made by the farms.^[48] In other words, producers can make this claim as long as the animals were given some access to the outdoors—even if that only means a small door in the back of an enormous warehouse, leading into a tiny yard.^[49]

To be free-range and certified humane, each bird must be given a minimum of two square feet of space.^[50]

Pasture-Raised

There is no official legal definition for this term. Companies can put this label on their products without third-party verification. Without being also certified humane, pasture-raised may mean nothing since there is no enforcement.

However, when pasture-raised is also certified humane, this represents something of a gold standard for eggs, as it means that birds are given a minimum of 108 square

feet of outdoor space each, and that they must have access to a barn for cover.

Compare this to the 1.5 feet allocated to certified humane cage-free birds, or the two feet of outdoor space given to “free range” birds, and you can see the enormous difference.

Grass-Fed

A lot of people, horrified by how animals are treated in factory farms and feedlots, and wanting to lower their ecological footprint, are looking for healthier alternatives. As a result, there is a decided trend toward pasture-raised and grass-fed animals.^[51] For more than a decade, the demand for grass-fed beef has been rising at an annual rate of 25-30%.^[52]

Traditionally, all beef was grass-fed beef.

Today, our beef supply comes from cows that typically start on grass, but then gain more than half of their ultimate weight in a feedlot (where they are fed a diet based heavily on GMO grain and soy).^[53]

The word grass-fed implies an animal used to produce dairy and/or meat is fed a diet of only grass and forage.^[54] Currently, there

isn’t an official definition of what “grass-fed” means. In January of 2016, the Agricultural Marketing System (AMS), a branch of the USDA, announced it was dropping the official definition of the word.^[55]

Neither the USDA or FDA perform on-farm inspections to verify the claims made by producers.^[56]

PCO Certified 100% Grassfed, America Grassfed, Certified Grassfed by AWG, and NOFA-NY Certified 100% Grass Fed are all verified claims with on-farm inspections.[57]

Because there isn't an official definition, there are loose interpretations about what it actually means. For example, as long as a cow started out on a diet of all grass, as most do in the beef industry, the term "grass-fed" can technically be used.

The term "grass-finished," however, is a statement that the cow was fed grass, and nothing but grass and/or plants, its entire life.[58]

Truly grass-fed beef is very likely healthier than feedlot beef for the consumer, and may also be significantly healthier for the environment (although this is a matter of controversy). If you're going to eat beef, and you value healthy, ethical and sustainable food, then grass-fed, grass-finished is the best way to go.

However, the health impact of grass-fed beef is unclear.[59] We don't have long-term studies on the health outcomes for people who eat entirely grass-fed beef. But we do know that beef in general is associated with heightened risk of cancer and of premature death.[60] Studies tell us that between now and 2050, a global switch to diets that rely far less on meat and far more on vegetables, fruits, and other plant foods could save up to 8 million lives per year, and reduce food-related greenhouse gas emissions by two-thirds.[61] Such a change would also save, in reduced

health care costs and reduced costs from climate change, up to \$31 trillion.[62]

Certified Humane

Humane Farm Animal Care (HFAC) is the leading non-profit certification organization dedicated to improving the lives of farm animals in food production from birth through slaughter.



A "Certified Humane" seal means the food comes from farms where animals are allowed to engage in natural behaviors, have sufficient space, shelter, and gentle handling, and have ample fresh water and a healthy diet without added antibiotics or hormones.[63]

Animal Welfare Approved

Animal Welfare Approved (AWA) by A Greener World is a food label for meat and dairy products that come from farm animals raised to high animal welfare and environmental standards.



The label's standards require animals are raised on family farms from birth to slaughter with sufficient and clean space indoors and outdoors that promote animal health and allow the animals to engage in their natural behaviors.

They also prohibit the use of antibiotics

(unless the animal is sick), growth hormones, and food with meat or animal by-products.

[64]

Antibiotic Claims

In 1948, farmers began using antibiotics in livestock animals.[65] Researchers accidentally realized that adding low doses of antibiotics to livestock feed made the animals grow faster.



Today's Concentrated Animal Feeding Operations (CAFOs – or factory farms as the public usually refers to them) are so crowded that industrial farm operators routinely administer regular doses of antibiotics via feed and water to all their animals — to keep their animals alive and gaining weight despite the filthy conditions.[66]

In fact, 80% of antibiotics used in the U.S. are fed to livestock, not to people.[67] And in many cases, the antibiotics they are using are the very same drugs used to stave off infections in people.

The misuse of these powerful drugs has led to the ominous and increasing development of antibiotic resistant bacteria. Antibiotic resistance is one of the most serious public health issues facing our world today.

Bacteria that become resistant due to overuse in livestock can impact humans through direct contact with animals, through the food chain, or through the environment. Experts estimate that by 2050, 10 million people each year could die from infections that are resistant to antibiotics.[68] According

to the USDA, Certified Organic livestock are raised without antibiotics; however, this certification means almost nothing to regulate the cruel conditions in modern “factory farms.” “Antibiotic free”

claims are not approved by the USDA because there's no way to verify that a product doesn't contain antibiotic residue. If you do eat meat, look for packaging labeled with “no antibiotics administered,” “no antibiotics added,” and “raised without antibiotics.” All of those

claims are allowed by the USDA so long as producers can prove antibiotics were not added or administered at any point in the animal's life.[69] You can also look for Animal Welfare Approved and Certified Humane labels, which prohibit the use of antibiotics unless the animal is sick.

Hormone Claims

An estimated 80% of all US feedlot cattle are injected with hormones to make them



grow faster, while an estimated 17% of dairy cows and 42% of large herds (500 or more) on factory farms are injected with the genetically engineered growth hormone recombinant Bovine Growth Hormone (rBGH) to increase milk production.[\[70\]](#) The growth hormone is produced by the biotech company Monsanto and sold under the brand name Posilac.[\[71\]](#)

Canada, the European Union, Japan, Australia, and New Zealand have banned rBGH because of scientific health concerns. In the United States, however, milk produced with the genetically engineered hormone is not only legal, it is also not labeled.

Polls show that American consumers overwhelmingly support the labeling of milk produced with rBGH, but the FDA has said such labeling would unfairly stigmatize rBGH milk as less healthy.[\[72\]](#)

In order to be Certified Organic by the USDA, livestock are to be raised without hormones. When it comes to hormone claims, “no hormones added” or “no hormones administered” are both allowed by the USDA if producers can prove no

hormones were used during the animal’s life. Because all animals naturally produce hormones, claims of “hormone-free” are not allowed.

Hormone use in chickens, turkeys, and pigs is illegal, so any hormone related claims made on those products are meaningless.[\[73\]](#) If you consume dairy or dairy products, and you want to avoid added hormones, look for certified organic labels on products.

Another way to avoid hormones altogether is by trading cow’s milk for plant-based milk. In addition to being cruelty free, plant-based milks boast numerous health benefits: they have LDL cholesterol-lowering benefits, more absorbable sources of calcium, as well as providing clean protein, healthy fats, and antioxidants.[\[74\]](#)



Worker Treatment

Farm workers are often exploited and driven to work brutally long hours for very little compensation. They're also exposed to harmful pesticides. In fact, the U.S. EPA estimates 300,000 farm workers are poisoned by pesticides each year nationwide, and many cases are never reported.^[75]

The average life expectancy for a migrant

farm worker in the U.S. is reported to be 49 years.^[76] In Mexico, conditions are even worse.^[77] Your choice of food can make a powerful impact not only on your own life, but on the lives of the people who grow it.

When you buy fair trade products, you help to insure the people who grew your food were treated with dignity. You're also investing in a healthier global economy.



Fair Trade Certified



A product that is Fair Trade Certified meets rigorous social, environmental, and economic standards. Fair Trade Certified goods must provide safe working conditions, protect the environment, offer sustainable livelihoods,

and growers must earn enough money to empower and uplift their communities.[\[78\]](#)

Fair trade generally refers to foods grown in developing countries and imported to the United States, Canada, Europe or other industrialized nations.

Fair for Life



Fair for Life goes beyond traditional fair trade by applying fair trade principles also to relevant domestic or regional trade and by requiring ethical working conditions along

the entire trade chain.

Producers, manufacturers, handlers and brand holders take their part in the global responsibility created by global markets. In addition to social responsibility and fair trade criteria, such as fair payment, use of a FairTrade Development Premium and a long term mutually beneficial trade relation, all Fair for Life certified operations need to respect strict environmental criteria.[\[79\]](#)

Food Justice Certified



Created by the Agricultural Justice Project, the Food Justice Certified label means a food meets the organization's standards for fair trade and fair treatment for all agricultural and food and fiber workers. It also means the farmers received a fair price for their products and all employees received a living wage.

The standard also includes requirements farmers don't typically receive like workers compensation, sick leave, and maternity and paternity leave. Only organic farms can be certified.[\[80\]](#)

United Farm Workers



Started by Cesar Chavez, Dolores Huerta, and Gilbert Padilla in the 1960s, the United Farm Workers of America is the nation's first enduring and largest farm workers union.[\[81\]](#)

The UFW label can be found on both organic and non-organic products and means farm workers under UFW contract enjoy decent wages, benefits, and working conditions.[\[82\]](#)



Specialty Needs

Between the global rise in veganism, and food allergies impacting 1 in every 13 children, food manufacturers are making it easier for those with dietary restrictions by including special labels on their food packages.[\[83\]](#)[\[84\]](#)

While specialty labels can save time at the grocery store, it is still important to read the ingredients and any disclaimers made by the manufacturer.

Certified Vegan

While not featured on all vegan products, the Certified Vegan logo can be found on thousands of products manufactured by over 800 companies.



A Certified Vegan logo means a product does not contain meat, animal by-products or animal-derived GMOs, eggs, dairy, honey, insect by-products (e.g. dyes), or sugar filtered with bone char.[\[85\]](#)

Gluten-Free

Labeling foods gluten-free is a voluntary practice and does not require manufacturers to test for gluten. If a manufacturer chooses to label their products as gluten-free, they must meet the FDA's labeling rules.

The FDA defines a food as gluten-free if it is inherently gluten-free or it does not contain: an ingredient that is a gluten-containing

grain, derived from a gluten-containing grain that has not been processed to remove gluten, or derived from a gluten-containing grain that has been processed to remove gluten.

Also, any unavoidable presence of gluten in the food must be less than 20 parts per million (ppm).[\[86\]](#)

Certified Gluten-Free



The following third-party organizations certify products and companies as gluten-free: Gluten Intolerance Group's Gluten-Free Certification Organization (GFCO)[\[87\]](#), the National Celiac Association (NCA)[\[88\]](#), the National Sanitation Foundation (NSF)[\[89\]](#), and the Beyond Celiac Gluten Free Certification Program, which has partnered with the Canadian Celiac Association (CCA).[\[90\]](#)

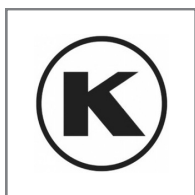
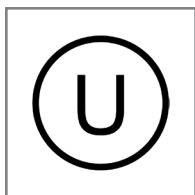
Each organization has different standards and their own testing requirements for trace gluten, most of which are lower than the FDA's requirement of no more than 20 ppm.

Kosher

The word kosher means proper or acceptable.[\[91\]](#) Foods marked with a hechsher, or kosher certification symbol, were prepared in accordance with Jewish Dietary Laws.[\[92\]](#) [\[93\]](#)

The most recognized symbols used by the

four biggest kosher certification agencies include: OU, Kof-K, OK, and Star-K.[94][95]



Pareve

Pareve is Yiddish for neutral and means the product does not contain meat or dairy. All fruits, vegetables, pasta, grains, nuts, beans, and legumes are pareve.[96]

American Heart Association Health Check



The Heart-Check mark means a product is heart healthy based on the American Heart Association's nutrition requirements. Some of the requirements include (per

serving): less than 6.5 g total fat, 20 mg or less of cholesterol, and four sodium limits depending on the category (140 mg, 240 mg, 360 mg, 480 mg).[97]

While these foods may be considered “heart healthy,” many nutrition advocates believe the American Heart Association’s

stamp of approval has been manipulated by established interests and doesn’t actually describe what’s optimal so much as what the organization considers politically palatable.

Low GI Certified



The Glycemic Index Foundation’s GI Symbol program is the only independent worldwide GI certification program.[98] The Glycemic Index (GI) is a relative ranking of carbohydrate in foods according to how they affect blood glucose levels.

Carbohydrates with a low GI value (55 or less) are more slowly digested, absorbed and metabolised and cause a lower and slower rise in blood glucose and, therefore usually, insulin levels.[99] Products featuring the Low GI symbol were tested and have a GI of less than 55.5 on the glucose scale.[100]

Other Labels

BPA-Free

Bisphenol-A or BPA is used in the production of plastic packaging (e.g. bottles and kitchenware) as well as canned food linings and jar caps.[101] Over the last 20 years, hundred of studies have documented the health hazards of BPA, an endocrine disruptor and synthetic estrogen. [102]

Scientists have linked BPA to breast cancer, reproductive damage, developmental problems, heart disease and other



illnesses.^[103] Currently, there is no regulatory or industry-wide accountability to ensure that BPA-free labeling is credible. This means companies are free to claim their cans are BPA-free with only a certificate or assurance from suppliers.^[104] Alternatively, companies without a BPA-free label may use non-BPA cans, but don't publicize the information.^[105]

The sad reality is that just because something is BPA-free doesn't mean it's safe. Many BPA-free containers are made with other chemicals that may be at least as harmful.^[106] The safest solution is to avoid most plastics if you can.

FDA (Food and Drug Administration) Approved

Although it is not a label, some companies may claim their products are FDA approved on their website.

The FDA is responsible for protecting public health by regulating human drugs and biologics, animal drugs, medical devices, tobacco products, food (including animal food), cosmetics, and electronic products that emit radiation.^[107]

Claiming to be FDA Approved means virtually nothing. The FDA doesn't have a criteria or standard for products to be labeled as "FDA Approved" and doesn't actively monitor companies that make the claim.

And it should probably be considered a warning as the companies using the label might be trying to mislead consumers.^[108]



Part 2: ***Food Label Claims***

Some of the best foods don't have labels. When a food product makes a health claim on a package, this is often a sign that they are more focussed on marketing than on making real foods. Never-the-less, here's what some of the terms mean.



Natural or All Natural

According to a national survey, 66% of consumers seek out products with a “natural” food label under the false belief that they are produced without pesticides, genetically modified organisms, hormones, and artificial ingredients.^[109]

“Natural,” “all natural,” and similar variations contribute to a \$90 billion industry without necessarily having justification.^[110] The FDA

currently does not define or regulate the use of “natural” food claims. However, the FDA has considered the term “natural” to mean that nothing artificial or synthetic (including all color additives regardless of source) has been included in, or has been added to, a food. The term does

not address food production methods, such as the use of pesticides or GMO seeds, or food processing or manufacturing methods, such as thermal technologies, pasteurization, or irradiation.^[111]

The USDA, on the other hand, defines natural as containing no artificial ingredient or added color and being only minimally processed. The label must include a statement explaining the meaning of the term natural (such as “no artificial ingredients; minimally processed”).^[112]

Excellent Source or Good Source

A product can claim it’s an “excellent source” if it contains 20% or more of the

Daily Value of a certain nutrient per serving. The phrase “high in” or “rich in” can also be used.^[113] A product can claim it’s a “good source” if it contains 10%-19% of the Daily Value of a certain nutrient per serving.^[114]

Healthy

The FDA has started a public process to redefine the “healthy” nutrient content claim for food labeling.^[115] While they determine a definition, they have issued a guide on how to use the word “healthy” on food products.

However, the FDA does not intend to enforce the regulatory requirements for products that use the term if certain criteria described in the guidance document are met.^[116] A “healthy” food, according to the

FDA, is

low in fat and saturated fat and contains limited amounts of cholesterol (60 mg or less per serving) and sodium (480 mg or less per serving).^[117] If it is a single-item food,

it also must provide at least 10% of the Daily Value per serving of at least one of these: vitamins A or C, iron, calcium, protein and fiber. Certain fresh, canned and frozen fruits and vegetables and certain cereal-grain products can be labeled “healthy” even if they don’t have at least 10% DV per serving of the above nutrients.^[118] In addition to being low in fat

and saturated

fat, bringing a limited amount of cholesterol (90 mg or less per serving) and sodium (600 mg or less per serving), packaged foods like frozen dinners must provide 10% DV of



two or three of these: vitamins A or C, iron, calcium, protein or fiber.[119]

If a food is labeled “healthy” or makes a health claim, it also can’t contain any nutrient that increases risk for disease and must contain no more than 20% of the DV per serving of: total fat, saturated fat, cholesterol, or sodium.[120]

The bottom line is that these may be some beneficial steps, but it takes a lot more than these limited nutrient profile data points for a food to truly be healthy.

Calories

Light or Lite

The terms “light” or “lite” may be used if a food is 50% less fat or has 33.3% fewer calories (if less than 50% of its calories are from fat) than the standard or original version. The label must include a statement referencing the food to which the product is being compared, or the amount of fat and calories reduced, in immediate proximity to the claim.[121]

Low Calorie

A food is considered low calorie if it has 40 calories or less per serving. A main dish product qualifies as low calorie if it contains 120 calories or less per 100g.[122] However, low calorie doesn’t mean a food is healthy.

For example, a diet soda is considered low calorie, but it is still loaded with chemicals, like sodium benzoate or potassium

benzoate, as well as artificial sweeteners that are linked to numerous illness and diseases including cancer.[123]

Reduced Calorie

A reduced calorie food has at least 25% less calories compared to the regular product.[124]

Low Cholesterol

A food is low in cholesterol if it contains 20 mg or less of cholesterol and 2g or less of saturated fat per serving.[125]

Reduced Cholesterol

Reduced cholesterol foods have at least 25% less cholesterol compared to the regular product and 2g or less of saturated fat per serving.[126]

Cholesterol Free

A food may claim it’s cholesterol free if it contains less than 2 mg of cholesterol, 2g or less saturated fat, and no ingredient that is generally understood by consumers to contain cholesterol, unless the listing of the ingredient in the ingredient statement is followed by an asterisk that refers to the statement below the list of ingredients, which states “adds a trivial amount of cholesterol,” “adds a negligible amount of cholesterol,” or “adds a dietarily insignificant amount of cholesterol.”[127]

Fat

Low Fat

A food is considered low fat if it contains 3g



or less of total fat per 100g and not more than 30% of calories from fat.

Low in Saturated Fat

Food that's low in saturated fat has 1g or less of saturated fat and 15% or less of the calories come from fat.[\[128\]](#) (See Saturated Fat section for more information.)

Reduced Fat

Reduced fat means a food contains at least 25% less fat compared to the regular product.[\[129\]](#)

Fat-Free

A fat-free food contains less than .5g of fat per serving and no added ingredient that is a fat or is generally understood by consumers to contain fat unless the listing of the ingredient in the ingredient statement is followed by an asterisk that refers to the statement below the list of ingredients, which states "adds a trivial amount of fat," "adds a negligible amount of fat," or "adds a dietarily insignificant amount of fat."[\[130\]](#) —

Sodium

Low Sodium

Low sodium foods contain 140 mg or less of sodium per serving.[\[131\]](#)

Very Low Sodium

Very low sodium means 35 mg or less of sodium per serving.[\[132\]](#)

Reduced Sodium

Reduced sodium means a food contains at least 25% less sodium compared to the regular product.[\[133\]](#)

Lightly Salted or Light in Sodium

A food claiming to be "lightly salted" or "light in sodium" has at least 50% sodium than normally added.[\[134\]](#) —

Sodium Free, Salt Free or No Sodium

Any one of these can appear on a label if a food contains less than 5 mg of sodium and no ingredient that is sodium chloride or contains sodium.[\[135\]](#)

No Salt Added or Unsalted

A claim of "no salt added" or "unsalted" can be made if no salt is added during processing. If the food is not sodium free, "not a sodium free food" or "not for control of sodium in the diet" must appear on the label.[\[136\]](#) —

Sugar

Sugar-Free

A sugar-free claim means the food has .5g of sugar per serving and contains no ingredient that is a sugar or that is generally understood by consumers to contain sugars unless the listing of the ingredient in the ingredient statement is followed by an asterisk that refers to the statement below the list of ingredients, which states "adds a trivial amount of sugar," "adds a negligible amount of sugar," or "adds a dietarily



insignificant amount of sugar.”^[137] It’s important to note that sugar-free includes naturally occurring and added sugars, but doesn’t include artificial sweeteners or sugar alcohols.^[138] Both are used to enhance flavor, and when eaten in excess, sugar alcohols can have a laxative effect.^[139]

Reduced Sugar

Reduced sugar means a food contains at least 25% less sugar compared to the regular product.^[140]

No Added Sugar

Many foods, such as fruits, vegetables, and milk products, contain naturally occurring sugars.^[141] A claim of “no added sugar” means no sugar or sugar-containing ingredient was added during processing or packaging.^[142]

This label is often found on fruit juices and preserves, and has been the subject of much controversy and many lawsuits.^[143]



Part 3:

How to Read Nutrition Labels

In the 1990s, the first Bush administration made nutrition fact labels mandatory on all packaged foods.^[144] And until 2016, the labels have remained the same.

Another thing that's remained the same: the public's still very confused on how to read them.

No matter where you are in your health journey, the information below will help you decipher nutrition facts and could help you make more informed choices about the food you bring into your kitchen.

Nutrition Facts		
Serving Size 2/3 cup (55g)		
Servings Per Container About 8		
Amount Per Serving		
Calories 230		Calories from Fat 40
% Daily Value*		
Total Fat	8g	12%
Saturated Fat	1g	5%
Trans Fat	0g	
Cholesterol	0mg	0%
Sodium	160mg	7%
Total Carbohydrate	37g	12%
Dietary Fiber	4g	16%
Sugars	1g	
Protein	3g	
Vitamin A		10%
Vitamin C		8%
Calcium		20%
Iron		45%
* Percent Daily Values are based on a 2,000 calorie diet. Your daily value 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

Nutrition Facts		
8 servings per container		
Serving size 2/3 cup (55g)		
Amount per serving		
Calories		230
% Daily Value*		
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	
Includes 10g Added Sugars		20%
Protein	3g	
Vitamin D	2mcg	10%
Calcium	260mg	20%
Iron	8mg	45%
Potassium	235mg	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.		



Serving Size

Serving size is based on the amount of food that is meant to be eaten at one time. The nutrition information listed on the Nutrition Facts label is usually based on one serving of the food; however, some containers may also have information displayed per package.^[145]

Be sure to watch out for serving sizes that are actually much smaller than what “feels” like a normal serving size. Food manufacturers may use a smaller serving size to keep potentially negative-looking amounts smaller, too.

Calories

Calories refers to the total number of calories, or “energy,” supplied from all sources (fat, carbohydrate, protein, and alcohol) in one serving of the food.^[146]

In recent years, “counting calories” was considered a primary method for weight loss and maintenance. Many food products are touted as “zero calorie” foods in an effort to make their products seem healthier than they may truly be.^[147]

Total Fat

Total fat represents how many grams of fat are in one serving. Since the 1990s, food manufacturers have been using a marketing strategy of pushing selling “healthier” versions of their original products and labeling them low fat, fat free, and reduced

fat.^[148] Because fat provides flavor and texture, these products are often loaded with sugar, sodium, or other additives to create the illusion of fullness and give the product a “mouthfeel”.^{[149][150]} Studies have shown that foods labeled as low-fat tend to cause people to eat more.^[151]

Saturated Fat

A diet high in saturated fats can increase total cholesterol and introduce higher levels of low-density lipoprotein (LDL).^[152] LDL cholesterol is considered “bad” cholesterol as it contributes to fatty build ups in arteries (atherosclerosis).

Plaque build ups narrow arteries and raises the risk for heart attack and stroke.^[153] Research points to an association of increased saturated fat consumption with an increased risk for heart disease.^[154]

Saturated fat is naturally occurring in many products, especially those derived from animals.

Sources for saturated fat include red meat (beef, lamb, and pork), poultry with skin, cheese, butter, dairy products, prepared baked goods, and fried foods.

Coconut oil, chocolate, and palm oil are the main plant foods that contain significant amounts of saturated fats, although because they are sourced from plants, they do not contain cholesterol.^[155] (See the Cholesterol Section for more information.)



Trans Fat

Trans fat can be naturally found in animal products, but most of the trans fat in the foods we eat is formed through a manufacturing process that adds hydrogen to vegetable oil which converts the liquid into a solid fat at room temperature. This process is called hydrogenation.^{[156][157]}

Artificial trans fat can be found in baked goods, vegetable shortening, fried foods, and more.^[158] Trans fats, and especially artificial trans fats, raise your bad (LDL) cholesterol levels and lower your good (HDL) cholesterol levels.

Eating trans fats creates inflammation, which increases your risk of developing heart disease, stroke, and other chronic diseases.^[159]

Even small amounts of trans fats can harm health: for every 2% of calories from trans fat consumed daily, the risk of heart disease rises by 23%.^[160] They also contribute to insulin resistance, which increases the risk of developing type 2 diabetes.^[161]

In 2015, the FDA published a final determination that partially hydrogenated oils (PHOs), the source of artificial trans fat, are not generally recognized as safe, but this determination would not affect naturally occurring trans fat, which would still exist in the food supply.^[162]

By June 18, 2018,^[163] it was ruled that manufacturers must ensure that their products no longer contain partially hydrogenated oils for uses that have not

been otherwise authorized by FDA.^[163]

Unsaturated Fat

Unsaturated fats are found in vegetables, nuts, seeds, and fish. They are separated into two categories : monounsaturated fats and polyunsaturated fats.^[164]

Common sources of monounsaturated fats are avocados, peanut butter, most nuts, and plant-based liquid oils such as olive oil, canola oil, peanut oil, safflower oil and sesame oil. While it is a matter of

controversy, some nutrition advocates believe that certain monounsaturated fats may be able to help reduce “bad” LDL cholesterol and to lower your risk of heart disease and stroke. They also provide nutrients to help develop and maintain your body’s cells. Oils rich in monounsaturated fats also contribute vitamin E to the diet.^[165] Polyunsaturated

fats are essential fats and are required for normal bodily function, such as muscle movement, developing cell membranes, the covering of nerves, and blood clotting. These fats can’t be produced by the body - you must get them through food.^[166] There are two kinds of

polyunsaturated fats: omega-3 fatty acids and omega-6 fatty acids. Omega-3 fatty acids may help prevent and even treat heart disease and stroke. In addition to reducing blood pressure, raising HDL (“good”) cholesterol, lowering triglycerides, and reducing risk of



Alzheimer's.^[167] Foods including flax seeds, chia seeds, walnuts, hemp seeds, and algae-based supplements, as well as many fish (especially cold-water fish such as salmon, anchovies, herring, and sardines) can all be sources of omega-3 fatty acids.

Omega-6 fatty acids have also been linked to protection against heart disease, but most people get too much omega-6 fatty acids, creating imbalances in the body.^[168]

The omega-6 fatty acids are found in vegetable oils (corn, safflower, soybean, cottonseed, sesame, sunflower), in seeds and nuts, and in smaller quantities in leafy vegetables and grains.^[169]

Cholesterol

Cholesterol is only found in animal products. Plant foods do not contain cholesterol. If a food contains cholesterol, it can be assumed it contains some form of animal product.^[170]^[171]

At one time it was believed that eating cholesterol raised human blood cholesterol levels, but the data on this is no longer considered conclusive.^[172]

In human blood, we look are two types of cholesterol: high-density lipoprotein (HDL), and low-density lipoprotein (LDL). LDL cholesterol is considered “bad” cholesterol as it contributes to fatty build ups in arteries (atherosclerosis). Plaque build ups narrow arteries and raise the risk for heart attack, stroke and peripheral artery disease can

narrowed arteries in the legs.

Sodium

The words “salt” and “sodium” are often used interchangeably, but they do not mean the same thing. Sodium is a mineral and one of the chemical elements found in salt. Salt, also known as sodium chloride, is a crystal-like compound that is abundant in nature and is used to flavor and preserve food.

Almost all foods naturally contain small amounts of sodium, but processed and packaged foods usually have more.^[173]^[174] High salt intake increases blood pressure, which can lead to heart disease.^[175]

Worldwide, people consume an average of 3,950 milligrams of sodium a day, and about 1.65 million deaths from cardiovascular disease each year can be attributed to excess sodium consumption. For people with cardiovascular challenges, a low sodium diet is often highly recommended.^[176]

Total Carbohydrates

The total number of carbohydrates is a combination of dietary fibers, sugars, and other carbohydrates.^[177] Not all carbs are the same. Many whole, plant-based foods that are high in carbs can be healthy and nutritious.

On the other hand, refined or simple carbs have had most of the nutrients and fiber removed. Eating refined carbs and especially added sugars is linked to vastly increased risk of many diseases,



including obesity, heart disease and type 2 diabetes.[\[178\]](#)

Dietary Fiber

Dietary fiber is a type of carbohydrate found in plant foods like fruits, vegetables, legumes, and grains.[\[179\]](#) Meat and dairy contain no natural fiber. Natural fiber is only found in plant foods.[\[180\]](#) —

There are two types of dietary fiber: soluble and insoluble.

Soluble fiber, which can lower LDL or “bad” cholesterol levels, is found in oats, beans and other legumes, and some fruits and vegetables.[\[181\]](#)[\[182\]](#) It also slows digestion and the rate carbohydrates and other nutrients are absorbed into the bloodstream, which can help control blood sugar levels.[\[183\]](#)

Insoluble fiber acts as a broom and cleans the digestive tract. The skins of many fruits and vegetables, seeds, nuts, wheat, and whole grains can be sources of insoluble fiber.[\[184\]](#) Another benefit: both soluble and insoluble fiber make you feel full and keep you satisfied longer.[\[185\]](#) Less than

3% of Americans get the recommended amount of fiber, and many food manufacturers have found a way to profit from this enormous gap.[\[186\]](#) [\[187\]](#) To make packaged foods seem more healthful, some companies add extra fiber to products, such as candy and yogurt, during processing.

These fibers are either isolated from their food sources and added to other foods, or are synthetic.[\[188\]](#) Their efficacy hasn’t been —

proven, and it’s entirely possible that adding in fiber in this way does little or no good.

Sugars

Sugars are found in most foods. While fruits and vegetables have naturally occurring sugars, foods like soda, dairy products, baked goods, and candy can have large amounts of added sugars.[\[189\]](#) In fact, — manufacturers add sugar to 74% of packaged foods sold in supermarkets, many of which are widely considered “healthy” — like energy drinks, yogurt, bars, granola, or even soup.[\[190\]](#) —

Consuming excess added sugar can not only lead to weight gain, but new studies suggest it can also increase your risk for heart disease. For example, too much added sugar can raise blood pressure and increase chronic inflammation, both of which are pathways to heart disease. High

amounts of sugar can overload the liver and lead to a greater accumulation of fat, which may turn into fatty liver disease, a contributor to diabetes, which also raises your risk for heart disease.[\[191\]](#) —

Protein

Found in both plant foods and animal products, protein provides calories, or “energy,” for the body.[\[192\]](#) Protein is required for the building, maintenance, and repair of tissues.[\[193\]](#) Most Americans eat significantly more than the recommended amount of protein.[\[194\]](#) In fact, the average American eats double what their body needs.[\[195\]](#) —



Excess protein has been linked with osteoporosis, kidney disease, calcium stones in the urinary tract, and some cancers.[196] High protein diets that rely heavily on animal products can also lead to heart disease due to the increased amount of saturated fat that tends to go with them.[197]

In the United States, the official recommended daily allowance is 0.36 gram of protein for every pound of body weight (to meet this target, at 130 pounds, you'd need about 47 grams of protein per day). If you're an athlete trying to build muscle, or you're pregnant or lactating, or if you're under physical stress, the recommendation is to get at least 0.45 grams of protein daily per pound of body weight (which means, at 130 pounds, you'd need about 59 grams of protein daily).

New research is finding that protein needs for seniors are somewhat higher because they don't tend to absorb protein as efficiently. Based on new findings, in 2015 the Mayo Clinic recommended that seniors (over age 65) should ideally be getting between .44 and .52 grams of daily protein per pound of body weight.[198] This means that a senior who weighs 130 pounds should be getting 57-67 grams of protein per day.

Protein needs tend to increase with age. But most people who eat a varied diet rich in whole foods, and who eat enough calories overall, will get more than enough protein.

What we call protein is actually made up of 21 different amino acids. Your body can make twelve of them, but there are nine

which are called the "essential" amino acids because it's essential to get them directly from your food.

At one time, it was believed that you had to combine certain foods with each other to get the full complement of the amino acids. But we've learned that's not necessary. You do need an adequate total amount of protein, and you do need all 9 essential amino acids, in your diet. But combining different foods in any given meal is irrelevant. As long as you're eating a variety

of whole, natural foods, and getting enough total calories and enough overall protein, your need for all nine essential amino acids should be easily met.

Vitamin A & Vitamin C

Vitamin A & Vitamin C are two of the thirteen vitamins. Vitamins are organic substances produced by both plants and animals.[199]

Vitamin A

Vitamin A is the name of a group of fat-soluble retinoids, including retinol, retinal, and retinyl esters (also known as "preformed" Vitamin A).[200] Beta carotene can be converted to vitamin A by the body.[201]

Vitamin A is involved in immune function, vision, reproduction, and cellular communication and plays a critical role in the normal formation and maintenance of the heart, lungs, kidneys, and other



organs.[202]

Vitamin C

Vitamin C, also known as ascorbic acid, is a water-soluble vitamin that's found in both fruits and vegetables, with citrus being the most popular source.[203] The synthesized version of Vitamin C, often called ascorbic acid, is sometimes added to food as a preservative.[204]

Vitamin C acts as an antioxidant, neutralizing unstable molecules that can damage cells. It also helps make collagen, an essential component of connective tissue, and the neurotransmitters serotonin and norepinephrine.[205][206]

Calcium

Calcium and iron are considered “nutrients of public health concern” because low intakes of the two minerals is associated with potential health risks.[207]

When most people see the word calcium, they think of milk and how it's good for your bones. Although milk does contain a significant amount of calcium, clinical research has failed to show any net benefit to our bones from consuming dairy milk. — [208]

In milk, it is usually also accompanied by animal proteins, lactose sugar, animal growth factors, occasional drugs and contaminants, and a substantial amount of saturated fat.[209] Plant foods such as green

leafy vegetables and legumes are rich in calcium and not only help build strong bones, but also help

fight cancer, heart disease, and many other ailments.[210][211]

Iron

Iron is an essential dietary mineral that helps the hemoglobin in red blood cells deliver oxygen throughout the body. There are two kinds of iron: heme iron and non-heme iron. Heme iron is found in animal products, especially red meat. Non-heme iron is found in both plant foods and animal products.[212]

Iron can be dangerous in both high and low quantities: too much causes the formation of cancer-causing free radicals, not enough can cause anemia.

The body has no way to get rid of excess iron. If we don't have enough iron, our intestines begin boosting absorption; if we have too much iron, absorption is decreased. Once a sufficient amount of iron

is in our blood, our bodies are about five times more effective at blocking absorption of excess iron from plant foods than from animal foods. But this system only works effectively with the non-heme iron found predominantly in plant foods. Heme iron is

more rapidly absorbed, and it will be absorbed whether your body needs it or not. This may be why heme iron is associated with elevated cancer and heart disease risk, and higher risk of type 2 diabetes, but non-heme iron is not.[213]

If you're suffering from anemia, heme iron



may be helpful. But if you're not, it could actually be harmful.

Ingredients

The Ingredient List shows each ingredient in a food by its common or usual name in descending order by weight. The ingredient with the greatest contribution to the product weight is listed first, and the ingredient contributing the least by weight is listed last. [\[214\]](#)

Names for animal products

Food companies sometimes use ingredient names that don't make it immediately obvious that the ingredient comes from an animal product.

Here are several names used for ingredients that come from animal products: albumin, casein, caseinate, gelatin, ghee, l-cysteine, lactose, lactalbumin, lard, shellac, sodium caseinate, whey. [\[215\]](#) [\[216\]](#)

Names for sugar

There are at least 61 different names for added sugar listed on food labels. [\[217\]](#)

Here are the main ones in use: Anhydrous dextrose, brown sugar, cane juice, corn syrup, corn syrup solids, crystal dextrose, dextrose, evaporated cane juice, evaporated corn sweetener, fructose, fruit juice concentrate, fruit nectar, glucose, high-fructose corn syrup (HFCS), honey, invert sugar, lactose, liquid fructose, maple syrup, malt syrup, maltose, molasses, nectars (e.g., peach nectar, pear nectar), pancake syrup,

raw sugar, sucrose, sugar, sugar cane juice, white granulated sugar. [\[218\]](#) [\[219\]](#)

Food Allergens

In 2004, the U.S. Congress passed the Food Allergen Labeling and Consumer Protection Act (FALCPA) to make it easier for consumers to identify and avoid foods that contain food allergens.

The act requires food manufacturers to label products that contains one of the eight major food allergies: milk, eggs, fish (e.g., bass, flounder, cod), Crustacean shellfish (e.g., crab, lobster, shrimp), tree nuts (e.g., almonds, walnuts, pecans), peanuts, wheat, and soybeans. [\[220\]](#)



Changes to Nutrition Facts Labels

In 2016, the FDA announced changes to nutrition fact labels for packaged foods. This represented the first update since 1993.

The new labels are designed to reflect new scientific information, including the link between diet and chronic diseases such as obesity and heart disease.

They will also make it easier for consumers to make better informed food choices. They are slated to be phased in in stages between now and 2021.

Here are the changes that are being incorporated into the new labels:

Serving Sizes

Servings per container and serving size are now in larger and/or bolder type.[\[221\]](#)

By law, serving sizes must be based on amounts of foods and beverages that people are actually eating, not what they should be eating.[\[222\]](#)

For packages that are between one and two servings (e.g. a 15-ounce can of soup), the calories and other nutrients will be required to be labeled as one serving because people typically consume it in one sitting.[\[223\]](#)

For products that are larger than a single serving but that could be consumed in one sitting or multiple sittings, manufacturers will have to provide “dual column” labels to indicate the amount of calories and

nutrients on both a “per serving” and “per package”/“per unit” basis.[\[224\]](#)

Calories

Calories are now in larger and bolder type.[\[225\]](#)—

Calories from Fat has been removed because research shows the type of fat consumed is more important than the amount.[\[226\]](#)

Nutrients

“Added sugars” in grams and as percent of Daily Value, will be included on the label.

In addition to Calcium and iron, Vitamin D and potassium will also required on the label because many Americans do not get the recommended amounts.[\[227\]](#)

Because Vitamins A and C deficiencies in the general population are rare, they will no longer be required on labels. Manufacturers can include Vitamins A and C on a voluntary basis.[\[228\]](#)

Daily values for nutrients like sodium, dietary fiber and Vitamin D are being updated based on newer scientific evidence from the Institute of Medicine and other reports such as the 2015 Dietary Guidelines Advisory Committee Report, which was used in developing the 2015-2020 Dietary Guidelines for Americans.[\[229\]](#)

% Daily Values

The Daily Values footnote is changing to



better explain the percent Daily Value. It will now read: “*The % Daily Value 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.”^[230]

While some food manufacturers have already started to include the new label on their packages, the FDA has extended the original compliance date. Instead of July 2018, food manufacturers that make \$10 million or more in annual sales now have until January 1, 2020 to update their labels. Manufacturers who make less than \$10 million have until January 1, 2021.^[231]

Nutrition Facts

8 servings per container

Serving size 2/3 cup (55g)

Amount per serving

Calories 230

	% Daily Value*
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	
Includes 10g Added Sugars	20%
Protein 3g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 235mg	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.



Endnotes

- 1 <http://sugarscience.ucsf.edu/hidden-in-plain-sight/>
- 2 [https://www.theguardian.com/sustainable-business/2016/mar/24/gmo-](https://www.theguardian.com/sustainable-business/2016/mar/24/gmo-food-labels-general-mills-kellog-mars)
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