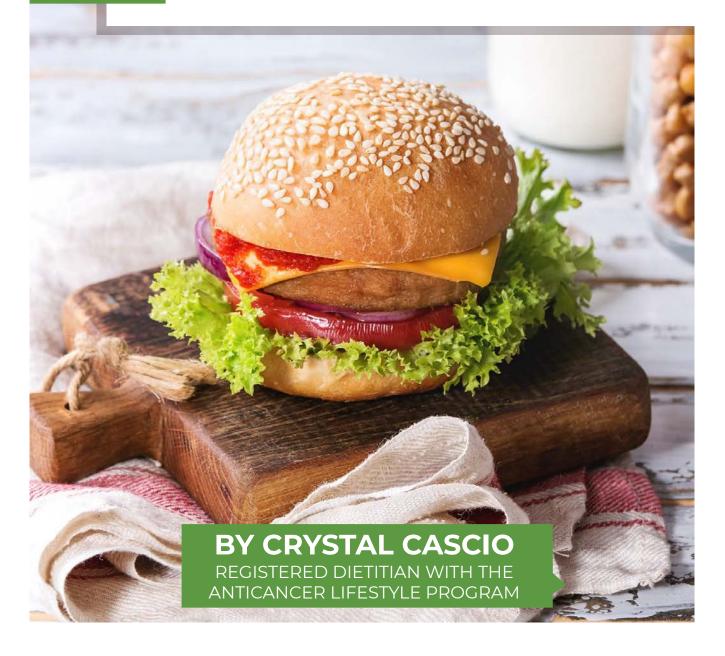


PLANT-BASED MEAT AND MILK ALTERNATIVES: Just How Healthy Are They?

Anticancer



ABOUT CRYSTAL

Crystal is a Registered Dietitian (RD) with the Anticancer Lifestyle Program.

She is also a yoga teacher and health coach who is passionate about Anticancer living. After graduating with her B.S. degree in nutrition from the University of New Hampshire, Crystal went on to pursue her M.S. degree in nutrition from New York University.

Crystal believes in the importance of looking at all aspects of lifestyle, and taking a personalized, holistic approach toward optimal health and well-being. She coaches in the ACLP module areas of Diet, Fitness, and Mindset.

In her free time, Crystal enjoys trying new recipes, visiting farms, shopping at farmers markets, doing yoga, being outdoors, traveling, reading and most importantly: living an Anticancer lifestyle!





In recent years, there has been an explosion of processed plant-based products on the market as consumers desire healthier and more eco-friendly options to support human and planetary health. Popping up all over our grocery stores are plant-based meats—burgers, chicken, hot dogs, bacon, sausage, and steaks—and dairy—milks, butter, cheese, yogurt, creamer, and even ice cream.

Many consumers falsely assume that plant-based products are by definition healthier than animal-based alternatives. This assumption is particularly widely-held with meat substitutes.

In this e-book, we will review:

- What to look out for when it comes to reading Nutrition Facts labels
- Ingredient lists of plant-based meat and milk substitutes
- Some popular brands and products, along with our recommendations









CONTROVERSY IN THE NUTRITION FIELD

It may come as no surprise that there is still much controversy in the nutrition field about most aspects of human nutrition—and that there is so much more to learn.

We all remember the time when fat was "bad" or demonized. Then, a decade later, carbohydrates became the new bad guy and everyone jumped on the bandwagon of limiting carbs. One day eggs are "good", and then the next day a study comes out suggesting they may not be so great for our health after all.

Clouding the picture is the fact that the food industry is often involved in funding this very research. For example, most of the research studies showing the nutritional benefits of eggs have been funded by the American Egg Board. (Research has demonstrated that studies funded by the food industry almost always favor the interests of the sponsor.)



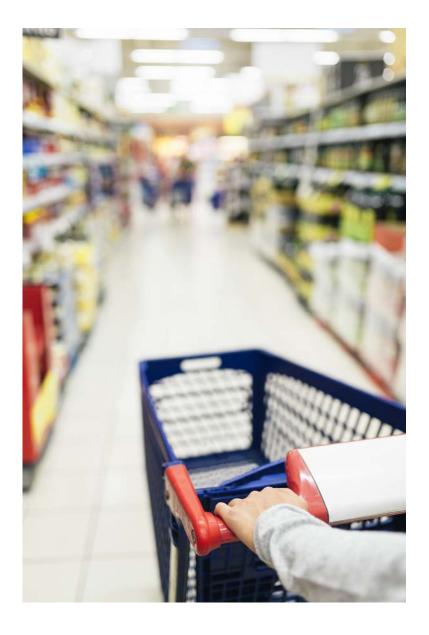
Despite the controversy that exists around nutrition-related research, there are common findings among most reputable studies.

Consistently, studies support the conclusion that eating more whole, plant-based foods and fewer animal products is beneficial to human health and can reduce the risk of chronic diseases such as cancer. Note the inclusion of the word "whole", meaning unprocessed. Some of the plant-based alternatives we examine below are highly processed.

Let's look at how you can distinguish processed plant-based products from healthier, more whole foods-based alternatives. Then after that, we'll zero in on processed plant-based meats and milks and make recommendations according to the standards described below.

READING NUTRITION FACTS LABELS FOR PLANT-BASED PRODUCTS: THE BASICS

When you are looking at a Nutrition Facts label for a processed plant-based product, such as a plant-based burger patty, here is what to consider:





The serving size is the amount of the product that determines the percentages you see on the Nutrition Facts label.

Also, be sure to check the number of servings per container or package.

Compare your portion size (the amount you will typically eat) to the listed serving size.



PERCENT DAILY VALUES OR %DV



Percent Daily Values (or %DV) are reference amounts (expressed in grams, milligrams, or micrograms) of nutrients to consume each day. The %DV shows how much of a nutrient in one serving of a food contributes to a total daily diet, based on an average of 2,000 calories consumed per day (used as a comparative standard). The %DV helps you determine if a serving of food is high or low in a particular nutrient. Note that you personally may need more or less of these nutrients per day. Five percent or less of the %DV is considered low. You want to aim higher in vitamins and minerals (such as potassium, calcium, iron, vitamin A, vitamin D, etc.) and fiber. A good source of beneficial nutrients such as calcium or iron provides at least 10-19% of the %DV per serving. High or excellent source of a nutrient is considered 20% or more.

Of course, there are some daily values—such as saturated fat, sodium, and added sugars—that will ideally be low. Increased intake of saturated fat has been associated with an increased risk of cardiovascular disease. Saturated fat has been shown to raise LDL or the "bad" cholesterol.









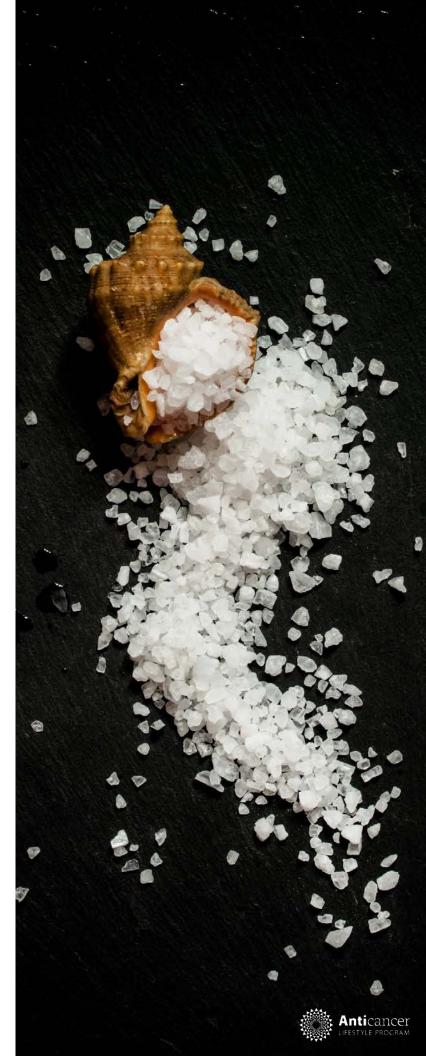


Many plant-based imitation meat products on the market have extremely high amounts of

sodium. Sodium is added to enhance the flavor and texture of the product and serves as a preservative. The <u>non-profit National Academy of</u> <u>Medicine (NAM)</u> recommends a much lower daily intake of sodium compared to the FDA: 1,500 mg/day versus the FDA's 2,400 mg/day. According to NAM, the percent of daily sodium intake you see on a Nutrition Facts label actually underestimates the amount you are taking in from that food, as a percentage of recommended daily intake.

In plain English, if a serving size of a product contains 850 mg of sodium, according to the FDA, that is 35% of recommended daily intake, but according to the NAM, that same serving will give you about 57% of your recommended daily intake. So it's best to be conservative if you are seeking to lower sodium intake. A useful tip when reading Nutrition Facts labels is that low-sodium is considered 140 milligrams or less per serving.

Excess sodium intake has been linked to high blood pressure, heart disease, stroke, and kidney disease (IOM 2010). Typically, most of the sodium in our diets comes from processed foods, and not from the salt added when cooking.





One of the most important items to consider when purchasing a processed plant-based product is its ingredient list (which is usually below the Nutrition Facts label, but will vary by package). Ingredients are listed in descending order by weight, and are required for food products that have more than one ingredient. The ingredients present in the product in the largest amounts will be listed first.

When reading ingredient lists for plant-based products these are items to consider:





Added sugars

...such as cane sugar, syrups, dextrose, and other forms of added sugars. Ideally, a plant-based product will not contain added sugars. Read ingredient lists for added sugars. The higher up added sugar is on the ingredient list, the more added sugar is found in the product. According to the <u>American Heart Association</u> it is best to limit added sugar intake to no more than 6 teaspoons (24 grams) per day for most women and no more than 9 teaspoons (36 grams) per day for most men. Remember: added sugars "add" up!





Artificial and "Natural" flavors

... are commonly listed on ingredient lists of many plant-based products. When you see "natural flavors" listed, a little warning bell should go off in your mind, because this category of additives is very opaque. The FDA has not fully defined what this term means, and which additives can and cannot be included as "natural". So-called "natural flavors" may contain synthetic chemicals, such as the preservative BHA or the solvent propylene glycol, according to the **Environmental Working Group (EWG).** Flavor extracts may also be derived from genetically engineered (GMO) crops and labeled "natural". It is best to avoid questionable flavor ingredients.

Rice-based ingredients

...have been found to be potentially contaminated with arsenic. According to

Consumer Reports, regular exposure to small amounts of arsenic can increase risk for certain types of cancers including bladder, lung, and skin cancer. Exposure can also increase risk for heart disease and type 2 diabetes. Rice-based ingredients are found in many plant-based products on the market. The <u>EWG recommends</u> avoiding buying processed foods that contain rice. Try products that contain alternative grains such as quinoa, barley, bulgur wheat, etc.





Soy protein isolate

... is found in many plant-based products on the market. It is especially prevalent in imitation meat products and nutrition bars. There are concerns surrounding the processing of soy to create soy protein isolate and other processed soy products including soy protein concentrate and textured vegetable protein. <u>Hexane</u> is a solvent commonly used in this process. The Centers for Disease Control and Prevention (CDC) classifies hexane as a neurotoxin. At this time it remains unclear if consuming trace amounts of hexane found in food has adverse effects on human health. **To avoid** hexane ingestion, be sure to choose products that are 100% organic (look for products with the USDA organic seal) as organic food production bans the use of hexane.

Keep in mind that soy protein isolate is a processed food ingredient. It is best to obtain soy from whole soy foods (such as whole soybeans) versus processed soy ingredients such as soy protein isolate, soy protein concentrate, and textured vegetable protein. Preferable soy-based foods include tofu, tempeh, edamame, soy milk, and soy yogurt. Look for imitation meat products made with whole soybeans.



Type of oils added

...is an important item to consider when reading an ingredient list for a plant-based product. Many vegetable oils such as corn oil, sunflower oil, and soybean oil contain high levels of omega-6 fatty acids which may increase inflammation. Also, vegetable oils (especially corn and soybean oil) may be genetically modified (GMO), which increases the risk of consuming harmful chemicals such as the herbicide glyphosate, which is routinely sprayed on GMO crops. (The World Health Organization, or WHO, has determined glyphosate to be a probable carcinogen.) Certain plant-based milks may contain rapeseed oil, which is a highly processed oil that may contain unhealthy trans fats, according to the EWG.





Does the product contain items in the ingredient list that you don't recognize? This is something important to consider. Be sure to look for products made from whole food ingredients without additives. Products that contain synthetic or industrial chemicals (such as nitrates, nitrites, potassium bromate, artificial colors, etc.) give you a clue that the food product is highly processed. If you see the word "enriched" in a product - such as enriched wheat flour this is also a code word for highly processed. Remember: ingredients such as soy protein isolate, soy protein concentrate, and textured vegetable protein, as mentioned above, are processed ingredients. Products that contain artificial or "natural flavors" are also clues that you may be consuming a highly processed food. Products that contain few artificial ingredients, more ingredients from whole foods, and fewer ingredients overall are considered less processed foods. In summary, a food is more processed if it contains artificial ingredients, more ingredients that have been significantly modified from whole foods, and a longer ingredient list.



Check for animal-derived ingredients



There is no legal definition of a "plant-based" food. Usually, "plant-based" refers to products made without use of animal meats, **but some may contain dairy**. (A vegan product contains no dairy or any other product derived from animals.) If you purchase a plant-based food that contains cheese or other animal product, try to purchase certified organic, since conventionally raised animals are often treated with growth hormones and antibiotics.

Organic ingredients

...are an important consideration. Is the product certified organic or does it contain organic ingredients? Non-organic products may contain GMO ingredients and harmful chemicals such as pesticides and herbicides (including glyphosate).

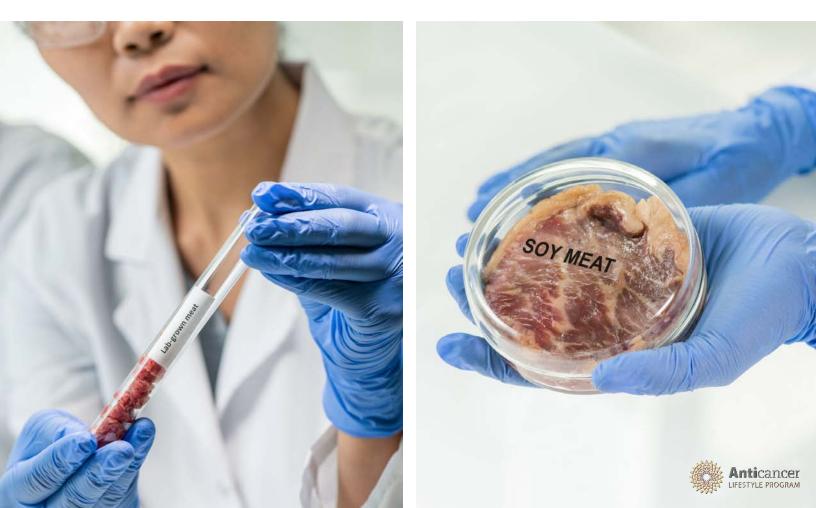


PRODUCT REVIEWS FOR PROCESSED PLANT-BASED MEATS: PUTTING IT INTO PRACTICE

Let us review some common processed plant-based meats on the market to put what we have learned above into practice.

Note that we only address these products from a human health perspective. There are other valid considerations people have—such as the potential for animal cruelty, and the impact of meat production on climate change and the ecosystem—that may cause them to choose plant-based alternative meats over animal meat.

However, based on the often questionable nutritional profile of these products, people may choose to avoid them as well.





Beyond Meat Meatballs (serving size = 5 meatballs)



Would not recommend

Items to consider:

- High in saturated fat from coconut oil (7 g or 35% DV per serving).
- High in sodium (500 mg of sodium per 5 meatballs. That is more than 1/4 of the sodium recommended in an entire day from just 5 meatballs!)
- Contains "natural flavors" in the ingredient list which is concerning. We cannot be certain what was added to this product.
- Has rice-based ingredients which may be contaminated with arsenic.

Beyond Burger (serving size = 1 patty)



- Rice-based ingredients may contain arsenic.
- "Natural flavors" in ingredient list
- High in saturated fat (from coconut oil): 5 g or 25% DV
- High in sodium (350 mg or 15% DV)



Impossible Burger (serving size = 1 patty)

Would not recommend

- Contains non-organic soy protein concentrate and soy protein isolate. As noted above, these have processing concerns and questionable impacts on human health.
- High in sodium (370 mg or 15% DV)
- High in saturated fat (total of 8 g or 40% DV for saturated fat). In comparison to a grass-fed ground beef patty (65% lean, 15% fat), this product was found to have 1g MORE of saturated fat. Also, the only ingredient in the grass-fed beef patty is grass-fed beef vs. numerous ingredients of concern in this product.



MorningStar Farms

Garden Veggie Burger (serving size = 1 burger)



Would recommend this product, with reservations

Appears to be a better product when compared to some of this brand's other products, and compared to other companies such as Beyond Meat and Impossible Burger.

Items to consider:

- Does contain pro-inflammatory vegetable oils including corn and sunflower oil.
- Has more whole food-based ingredients than other products such as Beyond Meat and Impossible Burger.
- Does not contain artificial or industrial ingredients.
- High in sodium (390 mg of sodium or 17% DV)
- Does have a very small amount of added sugars. Sugar is lower on the ingredient list when compared to other products with more concerning levels of added sugar. Generally speaking, it is best to find products with no added sugar.
- Rice-based ingredients may contain arsenic.



Items to consider:

- Contains concerning "Natural flavors"
- High in sodium (320 mg or 14% DV)
- Contains non-organic soy protein isolate and soy protein concentrate
- Pro-inflammatory vegetable oils (such as corn and sunflower)
- Added sugars (dextrose, sugar)

Original Chik Veggie Patties (serving size = 1 patty)





MorningStar Farms

Chipotle Black Bean Crumbles (serving size = ½ cup)

Would not recommend

Appears to be better than some comparable products, however, with all items considered, I would not recommend this product.

- Contains the nonspecific ingredient "flavor"
- May contain GMO ingredients
- Contains corn oil (more pro-inflammatory than other oils)
- Contains non-organic soy protein concentrate
- Has a long ingredient list
- Lower in sodium than many other plant-based products reviewed (200 mg or 9% DV).
- High in fiber



Boca Burger

Some Boca Burger products use non-GMO ingredients such as non-GMO soy.

Vegan Veggie Burger (serving size = 1 burger)



All American Veggie Burger





Would not recommend

This appears to be one of the better products/burgers available, however, with all items considered, I still would not recommend it.

Items to consider:

- Lower in sodium than many other plant-based burgers reviewed (280 mg, or 12% DV)
- Contains pro-inflammatory corn oil
- Contains non-organic soy protein concentrate
- Has 0g of saturated fat which is better than many products reviewed here
- Contains "natural flavor", which is a concern
- Overall, has lower processing concerns (fewer artificial or industrial ingredients) compared to other products on the market.

Higher processing compared to their Vegan Veggie Burger.

- 1 burger has 460 mg of sodium (19% DV)
- Contains non-organic soy protein concentrate
- Pro-inflammatory corn oil used
- Uses non-organic cheddar cheese (animals may have been treated with hormones and/or growth promoters).
- According to the <u>Environmental Working Group</u> <u>Food Scores database</u> this product has moderate processing concerns.



Quorn

Quorn's products contain mycoprotein, which is made from fungi. Mycoprotein is high in fiber and protein. <u>The Center</u> <u>for Science in the Public Interest (CSPI)</u> has raised concerns for years about the safety of mycoprotein consumption. According to CSPI, mycoprotein may cause digestive issues for individuals, including vomiting and diarrhea. Other concerning symptoms have also been reported. There have been reports of anaphylactic reactions (a severe, life-threatening allergic response) to mycoprotein. Also, according to research, greenhouse gas emissions from mycoprotein production are comparable to pork and chicken. A brief review of two of Quorn's popular products:

Deliciously Nutritious Meatless Strips



Would recommend this product, with reservations

This appears to be one of the better plant-based products available, which resulted in it receiving a more favorable rating on <u>EWG food scores database</u>.

Items to consider:

- High in sodium (460 mg per serving or 19% DV)
- Contains a small amount of added sugar

Meatless Cheesy Nuggets



- High in sodium
- Contains "enriched" wheat flour
- Dairy-based ingredients that may have been treated with antibiotics or growth hormones
- Contains the non-specific ingredient "flavor"
- Has added sugars
- Moderate processing concerns according to the EWG.



Sweet Earth

Would recommend this brand overall

This popular plant-based brand has many products that contain organic and non-GMO ingredients. Also, many of its products do contain ingredients sourced from real, whole foods.

Sweet Earth Mediterranean burger (serving size = 1 burger) Items to consider:

- Has 210 mg of sodium (9% DV which is lower than many other products on the market).
- High in fiber and iron
- Made with organic ingredients and there are no major ingredient concerns.



Would recommend



Light Life

...is a popular brand that uses plant-based ingredients. Similar to many other brands on the market, some of their products have a healthier profile (such as their tempeh, which is recommended) while others have more ingredient concerns (such as the Light Life plant-based burger, see below).

Light Life plant-based burgers (serving size= 1 burger)



- High in sodium with 390 mg or 17% DV
- High in saturated fat from coconut oil (5 g or 25% DV)
- "Natural flavors" as an ingredient is cause for concern.
- Has added sugars (cane sugar)
- Moderate processing concerns



PLANT-BASED MILKS: IMPORTANT CONSIDERATIONS

Generally speaking, plant-based milks can be a healthy alternative to regular milk. They contain less saturated fat (except for coconut milk which is high in saturated fat) than regular milk. Unsweetened varieties also contain less sugar when compared to regular milk. (Dairy milk contains lactose, the natural sugar found in dairy products).

Keep in mind that it is important to purchase "unsweetened" plant-based milks versus the "original" version or flavored versions, which usually have a lot of added sugars. When you're buying plant-based milks, it's preferable to look for brands that offer just as much protein as regular milk per serving (1 cup of regular milk provides about 8 grams of protein). Adequate protein is important for helping us feel full and satisfied, and for supporting a variety of vital functions (including immune health, bone health, and maintaining our muscle strength as we age).



Many plant-based milks (such as soymilk and pea protein-based milks) provide just as much protein as regular milk, and have just as much calcium, vitamin D, and vitamin B12 as regular milk. If you choose a plant-based milk without added vitamin D or calcium, be sure you're getting these nutrients elsewhere in your diet (or from the sun for vitamin D!) to support optimal bone health. For those who eat exclusively plant-based (avoiding all animal products), it is especially important to look for products that have vitamin B12 added.



GUMS IN PLANT-BASED MILKS

Gums are commonly added to plant-based milks to improve creaminess. There has been some concern that gums such as guar gum, gellan gum, locust bean gum, and xanthan gum may contribute to gastrointestinal issues such as gas and bloating. The <u>Environmental Working</u> <u>Group</u> has not identified any concerns related to adding gellan gum to foods.





According to Natural Medicines

Database, high doses of guar gum may cause adverse gastrointestinal effects such as abdominal cramps, abdominal pain, bloating, diarrhea, gas, heartburn, and loose stools. Keep in mind that these side effects can be minimized by consuming small doses. If a gum is listed low on the ingredient list in a product it is present in smaller amounts. There is evidence to suggest xanthan gum may cause gas and abdominal distension for some individuals, according to the Natural Medicines Database. Locust bean gum appears to be generally well-tolerated when consumed in amounts commonly found in food.

If you struggle with digestive issues, it's important to be mindful of foods consumed and symptoms experienced, and work individually with a qualified healthcare provider.



THE CARRAGEENAN CONTROVERSY

Carrageenan is a food additive extracted from seaweed. It is commonly used as a thickener and emulsifier to improve the texture of a variety of food products including some milks (such as soy milk), ice cream, yogurts, and other foods. **There is currently significant controversy**

surrounding carrageenan's safety.

Researchers have suggested that the Food and Drug Administration (FDA) ban carrageenan due to <u>studies</u> that have linked this food additive to digestive diseases (inflammatory bowel disease, stomach problems, intestinal lesions, etc.), <u>inflammation</u>, and even cancer (such as colon cancer). Joanne K. Tobacman, MD, has <u>published multiple peer-reviewed</u> studies finding that all forms of carrageenan are harmful. Dr. Tobacman has found through her research that exposure to carrageenan in amounts commonly found in processed foods may cause inflammation in the body.

A report by the Cornucopia Institute, a food and farm policy watchdog group, made a <u>strong case for banning</u> <u>carrageenan</u>. The FDA has rejected requests to ban this additive, citing studies that have not found carrageenan to have harmful health effects. The FDA also pointed out that many of the studies suggesting harm have been done in animal models, not humans.





The Environmental Working Group <u>has not identified concerns</u> for carrageenan in food. <u>Natural</u> <u>Medicines Database</u> has identified carrageenan to be safe when used orally in the amounts commonly found in foods. Officially, carrageenan is in the category known as "Generally Recognized as Safe" (GRAS) in the US.

The <u>debate</u> regarding carrageenan's safety continues. Given that this food additive does not contribute to the nutritional value of a product or improve taste, safety, or shelf life, this begs the question: Is it worth any potential risk to add this guestionable additive to our food? Many food companies have removed carrageenan in response to consumer concern about its potential harmful effects. If you're concerned about carrageenan in your food, be sure to eat less processed foods and more real, whole foods (which naturally do not contain this food additive) and read food ingredient labels to flag the presence of carrageenan. Those with digestive issues—especially inflammatory bowel disease-may want to steer clear of this food additive.

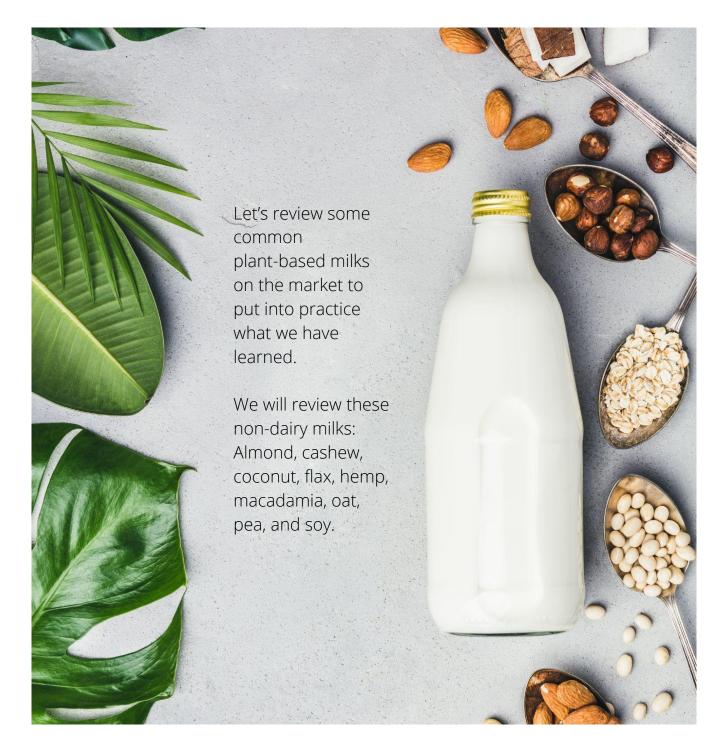


UNIQUE CONSIDERATIONS FOR PLANT-BASED MILKS

Our evaluations of plant-based milks were informed by the <u>ConsumerLabs</u> report on plant-based milks.

ConsumerLabs.com tests products on the market, including food products and supplements, and provides information to help consumers and healthcare professionals identify the highest quality products. Specifically, they are known for testing for heavy metals (such as cadmium, mercury, and lead) and making sure the Nutrition Facts label and ingredient lists accurately reflect what's in the product. Their comprehensive review of plant-based milks was considered in the product recommendations below.

PRODUCT REVIEWS FOR PLANT-BASED MILKS: PUTTING IT INTO PRACTICE





PLANT-BASED MILK REVIEWS

Ripple

...is a popular brand that sells milk (and other nondairy products such as yogurt) made from pea protein. Below is a brief review of two of their pea protein milk products.



Ripple, Original Unsweetened milk (serving size = 1 cup)

Would recommend

Items to consider:

- Has the same amount of protein you'd consume in 1 cup of regular milk.
- Approved by ConsumerLabs: Passed heavy metals test
- Excellent source of calcium, vitamin B12, and vitamin D
- Has no added sugars
- Does contain sunflower oil which is a pro-inflammatory oil.
- Contains guar gum in small amounts (low on ingredient list).



Ripple Chocolate Milk (serving size = 1 cup)

- High in added sugars. Added sugar (cane sugar) is the third ingredient in this product. There are a total of 4 teaspoons of added sugar in 1 cup.
- Contains the non-specific ingredient "natural flavor"
- Contains sunflower oil (a pro-inflammatory oil high in omega-6)
- Contains guar gum in small amounts (low on ingredient list)

Silk

...sells a variety of plant-based products including beverages, creamers, and yogurts. Below is a review of two of their popular soy milk products.



Silk Organic Soymilk, Unsweetened (serving size = 1 cup)

Items to consider:

- Has the same amount of protein found in 1 cup of regular milk
- Approved by ConsumerLabs: passed heavy metals test
- It is USDA organic
- High in calcium, vitamin B12, and vitamin D
- Has a small amount of fiber (compared to regular cow's milk, which has no fiber at all)
- Does contain non-specific ingredient "natural flavor"
- Low processing concerns according to the EWG. It has a shorter ingredient list compared to some other non-dairy milks.



Silk Vanilla Soymilk (non-organic) (serving size = 1 cup)





- Non-organic product (their organic products would be preferable to limit exposure to synthetic pesticides and fertilizers).
- Contains 2 teaspoons of added sugars (better to go with unsweetened varieties). Sugar is the second ingredient.
- Contains non-specific ingredient "natural flavor".



Oatly

...sells a variety of plant-based milk products made from oats. A review of two of their oat-based milks is below.

Oatly Oat Milk: The Original (serving size = 1 cup)



Would recommend with significant reservations

Would highly encourage considering other recommended brands.

- Approved by ConsumerLabs: passed heavy metals test
- Contains rapeseed oil which is a processed, refined oil and may contribute to trans fats in the diet according to the EWG.
- Not certified organic
- Contains more sugars than other unsweetened non-dairy milks (The sugar in this product is not added sugar. It's created as part of the production process when the starch in oats is converted into sugar.)
- Has less than half the protein of milk (3 grams of protein per serving)
- This product has moderate processing concerns according to the EWG, though it did not get a bad score.
- Excellent source of calcium, vitamin B 12, and vitamin D
- Contains 2 grams of fiber



Oatly Chocolate Milk (serving size = 1 cup)



- High in added sugar. Cane sugar is the second ingredient and this product has a total of 4 teaspoons of added sugar per serving.
- Other ingredient concerns similar to Oatly Oat Milk original above: rapeseed oil as an ingredient, not organic, not a good source of protein, etc.



Blue Diamond

...is a popular brand that sells plant-based products made from almonds, including a variety of snacks, milks, and other products.

Would recommend with some reservations

Blue Diamond Almond Breeze, Unsweetened Vanilla (serving size = 1 cup)

Items to consider:

- Approved by ConsumerLabs: passed heavy metals test
- Not certified organic
- Excellent source of vitamin D and calcium
- Low in protein with only 1 gram of protein per serving.
- Contains non-specific ingredient "Natural Flavors"
- No added sugars
- Contains 170 mg of sodium per serving



Almond Breeze, Hint of Honey Vanilla (serving size = 1 cup)

Would not recommend

- Not certified organic
- Contains added sugars. Honey and cane sugar are high on the ingredient list (within the top three ingredients). Best to go with unsweetened varieties.
- Excellent source of calcium and vitamin D
- Low in protein with only 1 gram of protein per serving
- Contains non-specific ingredient "natural flavors"
- Contains added sodium (150 mg or 7% DV per serving)



Forager

... is a popular brand that sells a variety of plant-based products made from cashews.

Forager Project Unsweetened Cashew Milk (serving size = 1 cup)





Items to consider:

- Certified organic
- Keep in mind this product contains no vitamin D and little calcium. Also very little protein--only 1 gram per serving.
- Product has a short ingredient list with no ingredient concerns. Does not contain artificial or industrial ingredients.

Forager Project Unsweetened Coconut, Cashew, & Oat Organic Dairy-Free Blend (serving size = 1 cup)



This product is high in saturated fat from coconut (30% of the daily value or 6 grams)



Real Coco

...makes milks, coffee creamers, waters, and snacks made from coconuts. *Keep in mind coconut milks contain a high amount of saturated fat.

Real Coco Original Coconut Milk (serving size = 1 cup)

To limit saturated fat consumption it would be best to go with other non-dairy milks that do not have saturated fats, such as soymilk, almond milk, or macadamia milk.

Items to consider:

- ConsumerLabs approved: Passed heavy metals test
- Keep in mind this product does not have protein, vitamin D, or calcium added.
- Certified organic product
- Contains a high amount of saturated fats from coconut cream:
 4.5 grams or
 23% DV. Would recommend using in moderation, if purchased.

Would recommend with reservations



Good Karma

...is most notable for their flax milks. Below is a review of two of their flax milk products.

Would recommend with reservations

Good Karma Unsweetened Flax Milk (serving size = 1 cup)

Items to consider:

- This product contains no protein
- Excellent source of calcium and vitamin B12
- Good source of vitamin D
- Not certified organic
- Contains nonspecific ingredient "Natural Flavors"
- Contains xanthan gum which may cause digestive issues for some individuals.
- Contains anti-inflammatory omega-3 fatty acids

ed Flax Milk = 1 cup)

Would not

recommend

Good Karma Vanilla Flax Milk (serving size = 1 cup)



Item to consider:

 This product contains 10 grams (2.5 teaspoons) of added sugar per cup. Cane sugar is the second ingredient.





...sells a variety of products made from hemp seeds.

Tempt Hempmilk: Unsweetened Vanilla (serving size = 1 cup)



Items to consider:

- This product was <u>not approved</u> by ConsumerLabs because it found only 61.7% of listed calcium in the product, and it had excessive amounts of vitamin B12 compared to the listed amount (239.2% of the listed amount). Vitamin B12 is safe in higher doses, however, the concern lies with being able to trust what is on the label of this product.
- Appears to be an excellent source of vitamin D and vitamin B12
- Contains anti-inflammatory omega-3 fats and other heart-healthy polyunsaturated fatty acids
- Contains a small amount of protein (2 grams per serving)

Tempt Chocolate Hemp Milk (serving size = 1 cup)



- Contains non-specific ingredient "natural flavors"
- Contains a significant amount of added sugar. Cane sugar is the second ingredient. This product contains a whopping 6 teaspoons of added sugars per serving!

Milkadamia

...sells a variety of products made from macadamia nuts.

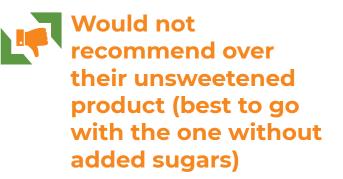
Milkadamia Milk, Unsweetened (serving size = 1 cup)



Items to consider:

- Contains non-specific ingredient "natural flavors"
- Excellent source of calcium and vitamin D
- Passed ConsumerLabs testing. Approved by ConsumerLabs (including passing heavy metals test)
- Only has 1 gram of protein per serving
- Contains a small amount of heart-healthy monounsaturated fatty acids

Milkadamia Milk, Lightly Sweetened (serving size = 1 cup)



Items to consider:

• Cane sugar is second ingredient with a total of 6 grams of added sugars (or about 1.5 teaspoons)



CONCLUSION

In summary, from a health perspective, it is important to be mindful of the ingredient lists and Nutrition Facts labels when purchasing convenient plant-based meat and dairy products. We recognize that other factors, such as greater eco-friendliness than animal-derived products, or a desire to avoid animal suffering, may influence your decision to purchase these products.

As you can see, many processed, plant-based products on the market appear to be "healthy", yet have concerningly high levels of sodium, saturated fats, added sugars, and other ingredient concerns. A great resource to utilize when grocery shopping is the <u>EWG's Healthy Living App</u>, where you can scan and search plant-based products on the market and see if they have been reviewed by EWG.

When in doubt, it's best to stick with plant-based food products that are minimally processed or unprocessed.