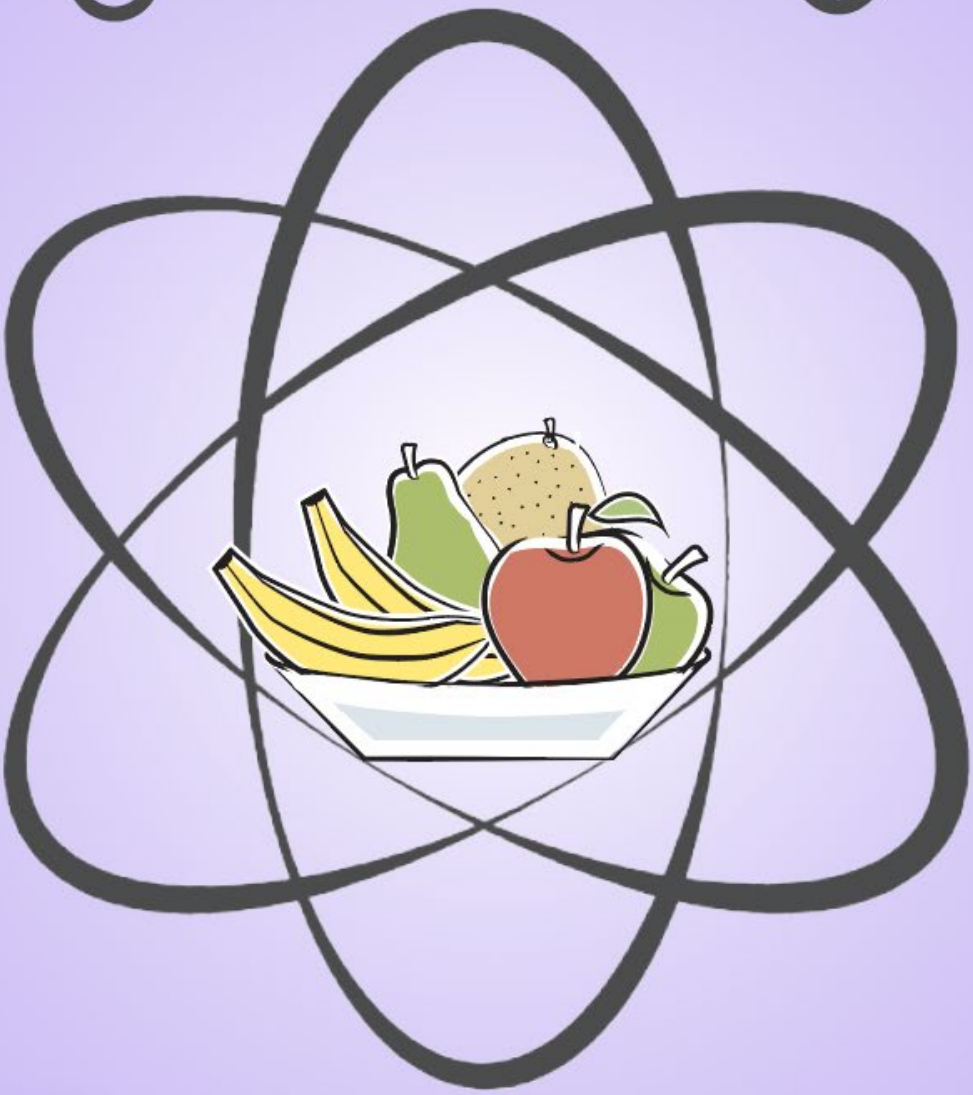
Nutrivore

GUIDE TO



Fruits

BY THE TEAM AT NUTRIVORE

Table of Contents

Introduction to Fruits

Along with vegetables, fruit is one of the few food categories with near-universal acclaim: from fiber to phytonutrients to micronutrients (especially vitamin C), these foods deliver a health-promoting bounty in a tasty package!

Importantly, fruit delivers health benefits independent of vegetables, so it's best to incorporate both into our regular diets. And far from being "nature's candy", eating two to three servings of fruit daily is optimal for reducing risk of cardiovascular disease, type 2 diabetes, obesity, chronic obstructive pulmonary disease, chronic constipation, and inflammatory bowel disease. So, embrace fruit as a convenient snack, a healthy dessert, a whimsical addition to salads, and a sophisticated flavoring agent in the form of salsas, jams, and chutneys.

What Counts as a Fruit?

Botanically speaking, fruits are seed-bearing structures that develop from the ovary of a flowering plant. However, some foods fitting this criteria—like tomatoes, eggplant, zucchini, and olives—are more commonly used as vegetables in the kitchen. So, for the sake of defining a food group, we'll stick with the culinary definition of fruit: fruits are what we use in sweet applications, while vegetables (even if they're botanically considered fruit!) are what we use in savory applications.

Two sub-categories of fruit even serve as their foundational foods! These are:

- BERRIES, which consist of any small, pulpy fruit with lots of little seeds, and include fruits such as açai berries, bilberries, blackberries, blueberries, boysenberries, cloudberries, cranberries, currants, elderberries, goji berries, gooseberries, huckleberries, lingonberries, loganberries, marionberries, mulberries, raspberries, salal berries, salmonberries, strawberries, tayberries, and thimbleberries.
- CITRUS FRUITS, which come from plants of the citrus genus and includes fruits such as bergamot, blood orange, Buddha's hand, citron, clementine, finger lime, grapefruit, kaffir lime, key lime, kumquat, lemon, lime, mandarin, meyer lemon, orange, pomelo, Satsuma, tangelo, tangerine, and yuzu.

As fruit sub-groups, the above categories tend to have some shared nutritional features (and subsequently, generalizable health benefits). Due to their edible skins and seeds, **berries** boast a higher concentration of fiber, fat, and phytonutrients than most fruits deliver—providing phytosterols like sitosterol and stigmasterol (which help block absorption of cholesterol in the small intestine), tannins (which have antioxidant, lipid-lowering, blood pressure lowering, antimicrobial, and oral-health boosting properties), and a surprising amount of alpha-linolenic acid (the only truly essential omega-3 fat)! Meanwhile, **citrus fruits** are famously high in vitamin C, while also being rich in some unique flavanones such as hesperidin and naringin—which have potent antioxidant, anti-inflammatory, anti-diabetic, anti-cancer, lipid-lowering, neuroprotective, and cardioprotective properties, as well as an ability to enhance the growth of beneficial microbes in the gut. (Combined with the highly fermentable pectin in these fruits, this makes citrus a fantastic choice for gut health!)

Beyond citrus and berries, a diverse (and delicious) world of additional fruits exist, including:

- APPLE FAMILY FRUITS, which belong to the sub-family pomoideae (also called pome fruit) within the plant family Rosaceae, a.k.a. the rose family. That's right, apples are related to roses!

These fruits include apple, Asian pear, crabapple, medlar, pear, quince, rose hip, and rowan.

- MELONS, which are the sweet, juicy fruits produced by members of the plant family *Cucurbitaceae*, and are related to squash and cucumbers. These include canary melon, cantaloupe, casaba, Christmas melon, Crenshaw melon, derishi, Galia, honeydew, horned melon, melon pear, muskmelon, Persian melon, Russian melon, and watermelon... among many other lesser-known melons!
- STONE FRUITS (also known as drupes), which are fruits containing a single pit (or stone) surrounded by edible flesh. These include apricot, apriums, cherry, chokecherry, greengage, hawthorn, loquat, nectarine, peach, plum, and pluots.
- TROPICAL AND SUBTROPICAL FRUITS, which grow in the in the hot, humid regions near the earth's equator (tropical fruits) or in the subtropical regions adjacent to them (subtropical fruits). These include acerola, banana, camucamu canistel, cherimoya, coconut, custard apple, date, dragonfruit, durian, fig, grapes, guava, jackfruit, jujube, kiwi, longan, loquat, lychee, mamey sapote, mango, mangosteen, papaya, passion fruit, pawpaw, persimmon, pineapple, plantain, pomegranate, rambutan, soursop, star fruit (carambola), sugar apple, and tamarind, among many other exotic members!

What Makes Fruit So Great?

Like other plant foods, fruits offer a trio of health-promoting compounds: *phytonutrients*, *fiber,* and *micronutrients*. However, fruit really shines in a few specific departments here!

Phenomenal Phytonutrients

Phytonutrients are biologically active compounds produced by plants for their growth, reproduction, and defense (including against pathogens, predators, and other plants). But, they also impart a number of health benefits for humans! When it comes to fruit, some of the most common phytonutrients are:

- ANTHOCYANIDINS, which possess anti-inflammatory, anti-pain, and neuroprotective effects. They're also what give some fruits a blue, purple, or deep red color! Anthocyanidins are found in blueberries, cranberries, blackberries, plums, red and black grapes, cherries, and raspberries.
- FLAVANONES, which have the ability to reduce inflammation, reduce blood lipids, reduce hypertension, exert antioxidant activity, improve insulin sensitivity, and potentially protect against heart disease. They're found abundantly in citrus fruit like oranges, grapefruit, tangerines, and lemons!
- FLAVANOLS (including kaempferol, myricetin, and quercetin), which are known to increase plasma antioxidant capacity, decrease DNA damage in lymphocytes (a type of white blood cell), interrupt the growth of certain cancers, reduce diabetes risk, protect neurons from oxidative damage, and suppress inflammation in the brain. They're abundant in apples, cherries, and pears.
- FLAVAN-3-OLS, which help maintain the elasticity of blood vessels (improving blood flow) and potentially reduce our risk of certain cancers and heart disease. They're found in dark-skinned fruits like elderberries, cranberries, cherries, black currants, and grapes, as well as apples, bananas, peaches, pears, and strawberries.
- TANNINS, which act as antioxidants and can reduce blood pressure, protect against harmful microbes, and improve blood lipids. Some tannins can benefit dental health by combating harmful oral bacteria and inhibiting plaque formation! They're found in pomegranates, persimmons, and berries.

- LYCOPENE, which is famous for supporting prostate health and potentially reducing the risk of certain cancers, heart disease, osteoporosis, and diabetes. It's found in reddish or pinkish fruits like apricots, papaya, watermelon, guava, mango, pink grapefruit, and peaches.
- LUTEIN AND ZEAXANTHIN, which support eye health (they're highly concentrated in the retina, and help filter out damaging blue light rays) and can help prevent cataracts and age-related macular degeneration. They're found in kiwi fruit, oranges, grapes, honeydew melons, mangoes, peaches, nectarines, and apples.
- STILBENES (including resveratrol, rhapontigenin, pterostilbene, and pinosylvin), which are powerful antioxidants that can interfere with all stages of cancer development, as well as potentially protect against neurological diseases (including Alzheimer's), cardiovascular disease, and diabetes. Stilbenes are highly concentrated in grape skins, cranberries, and blueberries.

Fabulous Fiber

The types of fiber found in fruit can not only promote regularity, but also reduce inflammation, reduce risk of heart disease, improve blood sugar control, slow down the absorption of simple sugars (hence why fruit tends to have a low glycemic load, despite having a relatively high sugar content), bind to substances in the digestive tract (such as bile salts and toxins), protect against colorectal cancer, and help our gut critters flourish and produce beneficial short-chain fatty acids.

Compared to other plant foods, fruit is particularly high in the soluble fiber pectin; in fact, it makes up an average of 35% of the cell wall content of fruit fiber! Pectin is a potent prebiotic, encouraging the growth of butyrate-producing bacteria belonging to Clostridium cluster XIV and Sutterella. Likewise, pectin appears to enhance the survival of Lactobacillus (including Lactobacillus fermentum and Lactobacillus reuteri) in the stomach and small intestine, boosting its ability to reach the colon.

Magnificent Micronutrients

Although fruit isn't quite as nutrient dense as vegetables, these foods tend to provide high levels of certain micronutrients! In particular, many fruits are great sources of vitamin C—a water-soluble vitamin with powerful antioxidant properties, with important roles in the immune system and collagen production. Many fruits are also good sources of potassium—an electrolyte mineral with roles in a wide variety of life-sustaining processes such as heart function, muscle contraction, nerve impulse transmission, blood pressure control, blood pH, and fluid balance. However, individual fruits all have their own unique micronutrient composition, providing a range of additional vitamins and minerals. Once again, variety is key!

A Spotlight on Unique Fruits and Their Benefits

Because fruits hail from so many different taxonomic families, individual fruits are all unique in what they provide! Let's take a look at some of the top beneficial nutrients unique to only certain fruits.

Plantains and under-ripe bananas deserve a special shout-out for their high content of **resistant starch**—a type of highly fermentable carbohydrate that bypasses digestion in the small intestine, instead feeding the microbes in our colons. Resistant starch is particularly famous for feeding short-chain fatty acid-producing bacteria and enhancing levels of butyric acid. In particular, bananas and plantains provide resistant starch in the form of **RS2**, which is protected from digestion because of its molecular structure (and only becomes accessible to human digestive enzymes after being cooked).

Meanwhile, melons are some of our very best sources of **l-citrulline**—an amino acid that serves as precursor for l-arginine, subsequently boosting nitric oxide production in the body. Citrulline and its metabolites are extremely beneficial for cardiovascular health due to helping improve blood flow, reducing blood pressure, and enhancing vasodilation. And, citrulline may even play a role in immunity! Watermelon is exceptionally high in citrulline (containing up to 3.5 mg of citrulline per gram!); in fact, the word "citrulline" comes from *Citrullus lanatus*, the Latin term for watermelon. But, other melons like casaba melon, cantaloupe, and horned melon are also good sources of this amino acid.

Mango is a uniquely high source of a polyphenol called **mangiferin**, which serves as an incredibly powerful antioxidant (even more potent than vitamin C or vitamin E). It's also been shown to have anti-inflammatory, anti-cancer, antimicrobial, anti-atherosclerotic, pain-relieving, blood lipid lowering, immunomodulatory, anti-diabetic (by inhibiting glucose absorption in the intestine), and antiallergenic properties. Mangiferin also chelates iron, and may have benefits for reducing oxidative damage from iron overload disorders (such as hereditary hemochromatosis)!

Another famous tropical fruit, pineapple, contains a special group of protein-digesting enzymes called **bromelain** (named from Bromeliaceae—the plant family pineapple belongs to!). Bromelain has been shown to act directly upon cancer cells, as well as modulate the immune, hemostatic, and inflammatory systems in the body. It's even demonstrated an ability to inhibit blood clotting, and some evidence suggests it helps with joint pain and stiffness!

One of the major bioactive compounds in mangosteen is **alpha-mangostin**—a type of xanthone that's been shown to exert anti-obesity, anti-cancer, anti-hyperglycemic, anti-dyslipidemia, anti-inflammatory, and anti-diabetic effects in experimental studies. Several human trials have likewise shown benefit of mangosteen fruit and juice on weight loss.

As a rare "fatty fruit", coconut has some unique features! In particular, it's a great source of **medium-chain triglycerides** (MCTs)—a type of saturated fat composed of at least two medium-chain fatty acids. MCTs have exceptionally rapid and direct absorption (straight from the intestine to the liver), allowing them to be quickly burned for fuel. Research shows they have benefits for weight loss and body composition—including by spontaneously reducing appetite and food intake, and by increasing resting energy expenditure via thermogenesis (heat production). MCTs may also help increase insulin sensitivity among diabetics, improve memory and cognition in Alzheimer's patients, improve exercise performance, and boost gut health.

Some fruits such as grapes, cherries, bananas, pears, and apples are natural sources of **melatonin**—a natural compound (specifically, an indoleamine) that has excellent antioxidant properties and high free radical-scavenging capacity, along with playing important roles in the regulation of circadian rhythms, metabolism, and the immune system! In studies, consumption of melatonin-containing fruit (like cherries) has been shown to significantly increase melatonin levels in the body, increase sleep time, and enhance sleep efficiency in humans.

Many fruits such as bananas, dates, nectarines, persimmons, plums, watermelon, and pomegranate are also high in a type of soluble fiber called **fructans**, which have important prebiotic properties! In studies, fructan consumption is associated with significantly greater abundance of the very important bacteria *Bifidobacterium* and *Lactobacillus* compared to other fiber types, enhancing the production of short chain fatty acids. In addition, fructans can interact with immune cells in the intestinal lumen, in turn helping modulate immune responses in the body! These fibers are even being investigated for their free radical scavenging abilities, potentially improving the redox environment of intestinal cells.

And of course, no fruit discussion would be complete without mentioning grapes! In particular, grapes (and the red wine made from them) are our main dietary sources of **resveratrol**—a stilbene with powerful anti-inflammatory and antioxidant properties. Studies show resveratrol can thwart all three stages of cancer development (initiation, promotion, and progression) by modulating the pathways involved in cell division, cell growth, cell death, inflammation, angiogenesis (the development of new blood vessels), and metastasis (the spread of tumors). Across epidemiological studies, clinical trials, and mechanistic experiments, resveratrol has also been shown to exhibit immunomodulatory, neuroprotective, cardio-protective, glucose-lowering, and lipid regulatory effects—giving it wide-ranging benefits for chronic diseases such as cardiovascular disease, diabetes, liver diseases, obesity, Alzheimer's disease, and Parkinson's disease.

Lastly, a variety of fruits (including apples, pears, and grapes) provide us with **proanthocyanidins**, also known as condensed tannins. These phytonutrients have demonstrated anti-cancer, antioxidant, anti-diabetic, anti-inflammatory, anti-arthritis, neuroprotective, and antimicrobial properties. They also appear to protect against some eye diseases!

The Benefits of Fruit

Although "fruit and vegetables" are often lumped together when talking about the health benefits of plant foods, fruit is independently beneficial! That means that we benefit from adding fruit to our diet even if we're eating plenty of veggies.

Health benefits attributed to specifically fruit include improved gastrointestinal health (including protection from irritable bowel syndrome IBS, irritable bowel disease IBD, diverticular disease, constipation, and colorectal cancer), reduced risk of cardiovascular disease, reduced risk of type 2 diabetes, reduced risk of metabolic syndrome, long-term weight management, protection against lung cancer, improved bone mineral density, reduced asthma severity, reduced risk of depression and other psychological conditions, reduced severity of autism spectrum disorders, reduced risk of seborrheic dermatitis, and reduced severity of chronic obstructive pulmonary disease. Whew!

For example, a 2006 meta-analysis of cohort studies, encompassing a total of 221,080 participants, found that for every portion of fruit consumed daily, risk of coronary heart disease dropped by 7%; some studies included in this analysis saw risk reductions of up to 19% per fruit serving!

A 2018 meta-analysis of 27 studies found that people with the highest versus lowest fruit intake had between a 17 - 24% lower risk of depression. A meta-regression of the data also found that in cohort studies, every 100-g increase in fruit intake was associated with a 3% lower risk of depression.

Similarly, a 2023 analysis of cross-sectional data found that compared to the lowest quartile of fruit intake (less than 0.12 cup daily), the highest quartile (over 1.49 cups daily) was associated with a 31% lower risk of depression. A Mendelian randomization analysis (which uses genetic variation to help determine causation) confirmed the relationship was causal!

Meanwhile, a 2018 meta-analysis of 26 observational studies found that higher fruit consumption was associated with a 19% lower risk of metabolic syndrome.

Of course, individual fruits can vary in their associations with disease risk. A 2013 analysis of three prospective longitudinal cohort studies, encompassing a total of 187,382 participants, found that for every three servings per week, blueberries were associated with a 26% lower risk of type 2 diabetes; for grapes and raisins, the risk reduction was 12%; for prunes, it was 11%; for grapefruit, it was 7%; and for apples, pears, and bananas, it was 5%.

How Much Fruit Do We Need to Eat to Get Their Health Benefits?

In general, science points to a "sweet spot" for fruit intake at around two or three servings per day (with a serving being 1 cup, or a fist-sized amount, of raw fruit). Both less and more than this amount isn't as beneficial, although even up to four or five servings per day is still better than eating no fruit!

Why isn't this a case of "the more, the better?" In short, most studies show that this amount provides the majority of the benefits we can glean from high fruit intake. The dose response relationship between fruit consumption and our overall health isn't linear, meaning that each serving we add to our diets doesn't impact our health equally. The benefits of fruit intake increase until we hit that two-serving mark, with additional fruit intake not offering additional benefits. Of course, variety matters here, too: eating a serving of two different fruits per day delivers more benefits than eating two or three servings of the same type of fruit.

A 2019 analysis by the CDC found that only 12.5% of adults eat the current recommended intake of fruit. So, if you're able to hit that two-serving sweet spot (or close to it), you're doing great!

Fruit Nutrivore Scores

As far as their Nutrivore Scores go, "other Fruits" rank as follows:

Apple	213
Apricot	260
Asian pear	621
Banana	185
Cantaloupe	457
Cherimoya	273
Cherry	171
Coconut meat	179
Dates, medjool	81
Dragon fruit, red flesh	800
Dragon fruit, white flesh	357
Figs, raw	158
Golden kiwi	500
Grapes, muscadine	644
Grapes, red or green	271
Green kiwi	453
Honeydew melon	228
Japanese persimmon	537
Jujube, raw	1239
Longan	264
Loquat	170
Lychee	319
Mango	342
Mangosteen	72
Nectarine	222
Papaya	636
Passion fruit	261
Peach	295
Pear	145
Pineapple	358
Plantain, green	173
Plantain, yellow	186
Plum	521
Pomegranate	256
Watermelon	405

What About Fructose?

Although fruit has a long-standing reputation as a health food, you may have also heard arguments against its consumption owing to its fructose content. Luckily, these arguments are generally unfounded!

First, contrary to popular belief, fructose isn't the only type of sugar in fruit—and in some cases, it's not even the main sugar in fruit! All fruit contains a mixture of fructose, glucose, and sucrose (which metabolizes into equal parts fructose and glucose in our bodies). And, each type of fruit has a slightly (or significantly) different proportion of these sugars.

For example, papayas, grapes, and most berries are about half fructose and half glucose. Grapefruit is about a quarter fructose and a quarter glucose, with the rest coming from sucrose. And, when we calculate total metabolic fructose (the fructose in the fruit when we eat it, plus the fructose that gets cleaved from sucrose molecules during digestion), we see that most fruit yields roughly equal parts fructose and glucose. Which is great news! While fructose has to get processed in the liver, glucose is used directly by our cells for energy, and doesn't pose the same metabolic consequences as extremely high fructose intakes (nonalcoholic fatty liver, lipogenesis, and inflammation).

Second of all, while it's true that high fructose consumption (in the 75 to 100 grams per day range) is associated obesity, diabetes, non-alcoholic fatty liver disease, and cardiovascular disease, these effects are all exacerbated by co-occurrence of vitamin D deficiency, inactivity, and high fat intake. Population studies show that fructose consumption (from all sources, including soda) is not associated with obesity below 40 grams daily.

It's unknown how high fructose consumption can be tolerated if we're only getting it from whole fruit, but there are examples of hunter-gatherers who eat tons of fruit and who are extremely healthy. And, studies show that fruit is definitely not the same as refined sources like high-fructose corn syrup. A 2018 study that compared the impact on metabolic markers of a high-fructose diet (100 grams daily!), achieved either by eating fruit or high-fructose corn syrup showed that, while both high-fructose diets caused detriments to metabolism compared to the low-fructose diet (<10 grams daily), the high-fructose corn syrup diet was worse than the fruit diet, and the effect was magnified in obese people compared to people who were a healthy weight.

All in all, the scientific evidence supports staying below about 40 grams per day of fructose from all sources. For reference, that translates to 4 to 8 servings of fruit per day, depending on the fruit!

There's no reason to avoid fruit on account of it being unhealthy, nutrient-poor, "nature's candy", or worthless on the disease protection front. And while we probably don't want to be eating more than 7 or 8 servings of fruit per day, it's a fantastic carbohydrate source that deserves more love than it sometimes gets!

Does an Apple a Day Keep the Doctor Away?

The aphorism "an apple a day keeps the doctor away" was coined in 1913, but was based on a much older rhyme, "eat an apple on going to bed and you'll keep the doctor from earning his bread," which originated in Wales in 1866! What's even cooler than the etymology is how intuitive these phrases were because there is considerable scientific evidence showing that consuming this favorite fruit significantly lowers the risk of certain cancers, cardiovascular disease, type 2 diabetes, and all-cause mortality plus more!

One key nutrient that apples contain, and which contributes to the many benefits of eating apples, is dihydrochalcones, including phloretin and phloridzin. Dihydrochalcones are a class of secondary metabolites of flavonoids that are widespread in very low levels in plants, and only found in higher levels in about 30 plant families—the only abundant source in the human diet is apples. The health beneficial properties of dihydrochalcones include potent antioxidant activity, antidiabetic, antitumor, antithrombotic, neuroprotective, estrogenic, anti-inflammatory, antibacterial, antiviral, and immunomodulatory properties.

A 2017 systematic review and meta-analysis, encompassing 95 studies evaluating fruit and vegetable intake, showed eating 100 grams of apples and pears, about once serving, per day led to a 20% decrease in all-cause mortality! That's impressive!

Recipes

APPETIZERS

Nutrivore Score

179

Prosciutto-Wrapped Melon

PREP TIME	COOK TIME	YIELD
20-30 minutes	none	8-10 servings

½ pound very thinly sliced prosciutto

½ small cantaloupe, cut into 1-inch cubes

½ small honeydew melon, cut into 1-inch cubes

2-3 dozen seedless grapes

Balsamic vinegar glaze (optional)

1. Cut each slice of prosciutto in half lengthwise.
2. Wrap a piece of prosciutto tightly around each chunk of melon and top with a grape. Skewer with a toothpick to hold it together, and arrange on a serving platter.
3. If desired, drizzle balsamic vinegar glaze over the top just before serving.

SOUPS AND SALAD

Nutrivore Score

379

Grilled Peach and Steak Salad

PREP TIME	COOK TIME	YIELD
15 minutes	15 minutes	4 servings

1 to 1 ½ pounds steak (flat iron, flank or skirt steak work well)

1 teaspoon sea salt

½ teaspoon black pepper

¼ teaspoon cayenne pepper

6 firm-ripe peaches, halved and pitted

⅓ cup olive oil, divided, or oil of choice

2 tablespoons balsamic vinegar

1 teaspoon mustard

2 cups basil leaves

8 cups mixed greens

1. Preheat gas or charcoal grill to medium-high heat.
2. Season steak with salt, pepper and cayenne. Grill the steak for 4 to 5 minutes per side for medium doneness. Remove from the grill and let rest for at least 15 minutes.
3. Reduce grill temperature to medium. Dip the cut side of the peaches in 2 tablespoons olive oil. Grill peaches cut-side-down for 3 to 4 minutes, until grill-marks form and they start to caramelize. Flip and grill for 1 additional minute on the other side.
4. Remove from the grill and set aside.
5. MAKE DRESSING: In a small bowl, whisk together the remaining 3 tablespoons of olive oil, balsamic vinegar, and mustard.
6. Slice steak against the grain into thin slices.
7. Toss basil leaves and mixed greens with dressing. Top with grilled peach halves and sliced steak. Serve!

COOKING TIP

TIP: You can also use plums or nectarines in this recipe.

Nutrivore Score

321

Nectarine and Cantaloupe Chilled Soup

PREP TIME	COOK TIME	YIELD
15 minutes	none	5 servings

1 small cantaloupe (about 2½ pounds), chilled

2 nectarines, chilled

1 tablespoon honey or sugar of choice

2 tablespoons fresh lime juice

Pinch salt

Lime slices for garnish

1. Cut cantaloupe in half, remove seeds and cut away rind. Cut into large chunks. Peel nectarines and slice, discarding pits.
2. Combine cantaloupe, nectarine and remaining ingredients in a high-speed blender. Blend at high speed until smooth, about 1 minute.

Nutrivore Score

306

Watermelon Gazpacho

PREP TIME	COOK TIME	YIELD
20 minutes plus chilling time	none	4-6 servings

5 cups cubed seedless watermelon (or remove seeds if using a seeded watermelon)

2 teaspoons red or white wine vinegar

1 tablespoon olive oil or oil of choice

¼ teaspoon sea salt

¼ red onion, finely diced (about ½ cup)

½ cucumber, finely diced (about ¾ cup)

½ jicama, finely diced (about 1½ cups), or granny smith apple if you can't find jicama

2 tablespoons chopped fresh cilantro

1 tablespoon chopped fresh mint

1. Combine the watermelon, vinegar, olive oil, and salt in a blender and pulse until smooth. (It's okay if it remains a little pulpy.)
2. Stir the onion, cucumber, jicama, cilantro, and mint into the watermelon mixture.
3. Pour into a container, cover, and place in the fridge to chill for 2 hours (or up to overnight) before serving.

Nutrivore Score

589

Carrot and Asian Pear Slaw with Dates

PREP TIME	COOK TIME	YIELD
20 minutes	none	4-6 servings

1 pound carrots

2 Asian pears

1 tablespoon fresh lemon juice

½ teaspoon honey or sugar of choice

1 teaspoon fresh mint chiffonade

¼ teaspoon sea salt

⅓ cup chopped pitted dates

2 tablespoons chopped fresh parsley

1. Grate Asian pears on the coarse side of a box grater, discarding the core. Grate carrots on the same coarse side of the box grater. Place in a large bowl.
2. MAKE DRESSING: In a small bowl, whisk together lemon juice, honey, mint and salt.
3. Pour dressing over grated carrot and Asian pear and toss to coat. Add pitted dates and parsley and toss to combine. Serve!

COOKING TIP TIP: You can substitute Granny Smith apples for the Asian pear in this recipe.

ENTRÉES

Nutrivore Score

269

Island Chicken with Melon Salad

PREP TIME	COOK TIME	YIELD
25 minutes plus marinating	15 minutes	4 servings

1 small onion, grated

1 cup yogurt or coconut milk yogurt

2 tablespoons olive oil or oil of choice

2 teaspoons grated, peeled fresh ginger

1 teaspoon sea salt

½ teaspoon ground cumin

¼ teaspoon ground turmeric

¼ teaspoon ground cinnamon

¼ teaspoon chili powder

4 skinless, boneless chicken breast halves (1½ to 2 pounds)

½ small honeydew melon

2 large mangoes

2 tablespoons peach jam

Juice of 1 lime

¼ teaspoon coarsely ground black pepper

1. Mix onion, yogurt, olive oil, ginger, salt, cumin, turmeric, cinnamon and chili. Coat chicken thoroughly and place in a dish. Refrigerate at least 3 hours and up to overnight.
2. Preheat broiler on high and arrange oven rack so that chicken will be approximately 5 inches from the heating element.
3. Arrange chicken on the rack of a boiling or shallow roasting pan. Spread any leftover marinade over the top of the chicken. Broil for 15 minutes, turn-ing half way, until chicken is cooked through and reaches an internal temperature of 160°F.
4. Remove rind and seeds from melon and cut into 1-inch chunks. Remove peel and pit from mango and cut into 1-inch chunks. Gently toss melon and mango with peach jam, lime juice and black pepper.
5. Let chicken rest 5 minutes before serving. Serve with melon salad.

Nutrivore Score

183

Gluten Free Pineapple Pizza

PREP TIME	COOK TIME	YIELD
crust 10 minutes, sauce 5 minutes	sauce 5 minutes	2 10-inch round pizzas

2 tablespoons olive oil or oil of choice

1 batch pizza crust (see below), or store bought crust of choice

1 batch pizza sauce (see below), or store bought sauce of choice

½ red onion, thinly sliced

1 cup pineapple chunks, fresh, canned or thawed from frozen

½ cup sliced mushrooms

¼ cup olives (optional)

Shredded mozzarella cheese (optional)

CRUST:

2 cups tapioca starch

½ cup sifted coconut flour (measure after sifting)

2 teaspoons dried oregano leaves

1 teaspoon granulated garlic

1 teaspoon sea salt

1 cup milk or non-dairy milk of choice, warmed

1 cup olive oil or oil of choice

2 large eggs, beaten

SAUCE:

1 teaspoons olive oil or oil of choice

1 clove garlic, minced

1 14-ounce can crushed tomatoes

¼ cup tomato paste

1 teaspoon honey or sugar of choice

1 teaspoon red wine vinegar

½ teaspoon dried basil

½ teaspoon dried oregano

½ teaspoon dried thyme leaves

Sea salt and ground black pepper

1. **MAKE CRUST:** In a large mixing bowl, whisk the tapioca starch, coconut flour, oregano (if using), granulated garlic (if using), and salt until well combined. In a separate bowl, whisk together the milk, oil, and egg. Pour over the tapioca starch mixture and stir to combine. Let sit for 3 to 5 minutes to thicken before using.
2. **MAKE SAUCE:** Heat a medium saucepan over medium-high heat. Add the olive oil and garlic and cook for 30 seconds, until fragrant and starting to brown.

Add the remaining ingredients and bring just to a simmer. Remove from the heat and season to taste with salt and pepper.

3. PREPARE PIZZA: Rub a pizza stone or large well-seasoned cast-iron skillet with the olive oil and place in the oven to heat. Preheat the oven to 450°F. Remove the hot pizza stone or skillet from the oven. Pour the pizza crust dough into the heated pan and spread it with a spatula to a 9- to 10-inch circle of even thickness (it should be about ¼ inch thick). Bake for about 9 minutes, depending on how crispy you like the crust, then remove from the oven and lower the oven temperature to 400°F. Spread whole batch of sauce over the crust, or to your liking. Add toppings and sprinkle shredded cheese over top, if using.
4. Return the pizza to the oven and bake for another 8 to 10 minutes and serve.

DESSERT

Nutrivore Score

200

Apricot-Ginger Fro-Yo

PREP TIME	COOK TIME	YIELD
20 minutes plus chilling time	none	1 quart

3 cups sliced fresh apricots

1½ cups full-fat yogurt or coconut milk yogurt

¼ cup honey or maple syrup

3 tablespoons chopped candied ginger

1. Combine the apricots, coconut milk yogurt and honey in a blender. Blend until completely smooth. Chill in the fridge, at least 1 hour.
2. Stir in chopped candied ginger and place the chilled yogurt in an ice cream maker and churn following the manufacturer's directions.
3. Store any leftovers in the soft zone of your freezer.

Nutrivore Score

124

Honey-Poached Stuffed Apricots

PREP TIME	COOK TIME	YIELD
20 minutes plus chilling	40 minutes	6 - 8 servings

1 cup dried apricots (about 2 dozen)

3 to 4 tablespoons whole almonds (1 per apricot)

1 cup honey or maple syrup

1 cup water

½ cup dry white wine

¼ teaspoon dried lavender

1 tablespoon orange zest, thick

½ vanilla pod, sliced lengthwise

Whipped cream or coconut cream and bee pollen for serving (optional)

1. Stuff each dried apricot with one almond. To do this, find the cut where the pit was removed and gently pull open. Slide in the almond and then pinch closed to seal around it.
2. Place the stuffed apricots in a pot with the remaining ingredients. Bring to a boil, then reduce heat to a simmer. Simmer for 30 minutes to 35 minutes, until apricots are soft enough to cut with the side of a spoon.
3. Carefully remove the apricots with a slotted spoon and transfer to a serving dish. If any fall apart, gently reinsert their almonds.
4. Remove the vanilla pod, scraping the seeds and adding the seeds back to the liquid in the pot.
5. Increase the heat to medium and sim-mer the remaining liquid until it has reduced to 1 cup, about 5 to 6 minutes.
6. Pour the syrup over apricots and refrigerate at least 4 hours, up to overnight.
7. Serve with cream and garnish with bee pollen, if desired.

Nutrivore Score

188

Banana Custard with Ginger-Spice Molasses Cookie Crumbles

PREP TIME	COOK TIME	YIELD
25 minutes	20 minutes + chilling tie	6 servings, plus 2 dozen extra cookies

1⅔ cups heavy cream or 1 13½-ounce can coconut milk

⅓ cup cane sugar or granulated sugar of choice

1 teaspoon vanilla

Pinch sea salt

2 large eggs

1 bay leaf

6 bananas

FOR THE COOKIES:

1¼ cup cane sugar or granulated sugar of choice, divided

½ cup blackstrap molasses

⅔ cup butter, ghee or fat of choice

1 large egg

1 teaspoon baking soda

½ teaspoon sea salt

1½ teaspoons ground ginger

2 teaspoons ground cinnamon, divided

1 teaspoon ground allspice

1 teaspoon ground cardamom

1 teaspoon ground cumin

1 teaspoon ground turmeric

½ teaspoon ground cloves

⅛ teaspoon ground pepper

2 cups all-purpose flour, or gluten-free flour blend or grain-free flour of choice

1. Combine heavy cream, sugar, vanilla, salt and eggs in a blender jar and blend on high for 20 seconds.
2. Pour into a saucepan, add the bay leaf, and heat on medium heat, stirring constantly with a wooden spoon, taking care that the custard doesn't stick or burn, until it thickens. The custard is done when it coats the back of the wooden spoon but still pours easily. (If the custard curdles, pour it back into the blender and blend for 30 seconds on high.)
3. Pour into a dish, removing and discarding the bay leaf, and chill in the fridge until set, at least four hours.

4. While the custard cools, make the cookies.
5. Preheat oven to 350°F.
6. In a large bowl, mix 1 cup sugar, molasses, ghee and coconut oil until completely combined. Add egg and mix to fully incorporate.
7. In a separate bowl, combine baking soda, salt, ground ginger, 1 teaspoon ground cinnamon, all-spice, cardamom, cumin, turmeric, cloves, ground pepper and flour.
8. Add dry ingredients to wet ingredients and stir to form a dough.
9. On a plate, mix remaining ¼ cup sugar and 1 teaspoon cinnamon.
10. Make balls of dough 1-inch in diameter. Roll in sugar and cinnamon and place on baking sheet.
11. Using a fork, flatten cookie, making a crisscross pattern.
12. Bake for 10 to 11 minutes. Transfer to a wire rack and cool completely.
13. Take about a dozen cookies and break into crumbs.
14. TO SERVE: peel and slice bananas, pour custard over the top, and top with cookie crumbs from about a dozen cookies.

Nutrivore Score

333

Pineapple and Lychee Granita

PREP TIME	COOK TIME	YIELD
3 hours	none	8 servings

2 pounds fresh lychee, rambutan, or longan

2 limes

4 cups (about 1½ pounds) fresh pineapple chunks

¼ teaspoon sea salt

1. Peel and pit the lychee.
2. Zest the limes and reserve the zest for garnish, then cut the remaining peel off the limes.
3. Place the peeled limes, lychee, pineapple, and salt in a blender and blend until completely smooth.
4. Pour the puree onto a rimmed baking sheet or into a sheet pan or lasagna pan and place in the freezer.
5. After 1 hour, remove the baking sheet from the freezer and scrape and mash the fruit with a fork to make little ice crystals. Return the baking sheet to the freezer.
6. After another hour, remove the baking sheet from freezer and mash the fruit a second time. Return the baking sheet to the freezer.
7. After a third hour, remove the baking sheet from the freezer and mash the fruit a final time. Transfer the granita to a freezer-safe container and store in the freezer until ready to serve.

Nutrivore Score

175

Apple Crisp

PREP TIME	COOK TIME	YIELD
15 minutes	40-50 minutes	6-8 servings

½ cup chopped raw pecans

½ cup chopped raw walnuts

½ cup rolled oats

½ cup all purpose flour, gluten free flour blend or grain free flour of choice

⅓ cup cane sugar or granulated sugar of choice

½ teaspoon ground allspice

½ teaspoon ground nutmeg

Pinch of sea salt

½ cup butter, melted, or oil of choice

6 medium to large apples (about 2 ½ pounds)

1 teaspoon finely grated lemon zest

2 tablespoons lemon juice

½ teaspoon ground cinnamon

¼ teaspoon ground cardamom

1. Pour the pecans, walnuts, and oats into a bowl. Add the flour, sugar, allspice, nutmeg, and salt and mix to combine.
2. Pour the melted butter over the oat mixture and stir to fully combine. Preheat the oven to 375°F.
3. Peel and core the apples, then cut into large bite-sized pieces.
4. Toss the apple pieces with the lemon zest, lemon juice, cinnamon, and cardamom.
5. Place the apple mixture in a casserole dish, 8- or 9-inch square baking dish, or 9-inch deep-dish pie plate.
6. Use a knife or your fingers to crumble the oat topping, making sure there are some big pieces and some small ones. Cover the surface of the apples with the crisp topping crumbs.
7. Bake for 40-50 minutes, until the apples are fully cooked and the topping is browned.

About the Creators of this Book

Dr. Sarah Ballantyne, PhD

FOUNDER OF NUTRIVORE

Award-winning public speaker, New York Times bestselling author and world-renowned health expert, Dr. Sarah Ballantyne, PhD believes the key to improving public health is scientific literacy. She creates educational resources to help people improve their day-to-day diet and lifestyle choices, empowered and informed by the most current evidenced-based scientific research.

Charissa Joy, AOS

CHIEF OPERATIONS OFFICER

Charissa Joy has over 15 years of experience working in the wellness space. Charissa has many roles on the team. She is Dr. Sarah's right hand womanand touches every part of Dr. Sarah's businesses. She manages all communications for Nutrivore, both external and internal. She is the project and team manager. She handles all marketing internal and external marketing, as well as all brand/affiliate partnerships.

Nicole Anouar, BA

GRAPHIC DESIGNER

Nicole Anouar has a B.A in graphic design from the University of San Francisco and specializes in branding and educational design for healers and health professionals in the online space. With 8+ years of education and practice in graphic design, content marketing and ancestral lifestyle tradition, Nicole expresses her passion for truth and her love for alternative living into the work she does every day.

Kiersten Peterson, BA, NTP

CONTENT CREATOR AND PHOTOGRAPHER

Kiersten is a Content Creator for Nutrivore with a focus on recipe creation, practical resources and food photography, with a little writing on the side. After experiencing full body healing with the help of Dr. Sarah's and others' work, she now enjoys finding and creating beauty both in her work for Nutrivore and in her home as she raises two daughters alongside her military husband.

Denise Minger

CONTENT CREATOR AND RESEARCHER

Denise is a health researcher and author of the best-selling book, "Death By Food Pyramid"—an award-winning exposé of the forces that shaped our dietary guidelines and beliefs, and that's been featured in documentaries, UPenn medical writing curricula, the Nutritional Therapy Association certification program, and numerous other health education courses around the world.

Jacqueline Leeflang, PEng

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Jacqueline has a degree in Chemical Engineering (Bachelor of Applied Science) from the University of British Columbia in Canada, along with a master's degree in renewable energy technology from the United Kingdom. She has also achieved her Professional Engineering designation in her home province of Alberta, Canada.

Jacqueline does a wide variety of tasks for Nutrivore including, article writing, data design, data visualization, all things excel, research, and content creation. When she's not googling her way out of the excel jungle, she is parenting her two young boys and spending time outdoors.

Lisa Hunter, MSc

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Lisa has a Bachelor of Science degree in Chemistry and Biochemistry, a Master of Science degree in Biochemistry, and worked in the pharmaceutical industry developing bio-products for 7 years, prior to taking time off to raise her two children.

On Nutrivore.com she is a researcher, writer, and content creator and is responsible for developing and maintaining the expanded Nutrivore Score database of over 7,500 foods (plus many of the nerdy puns sprinkled throughout the website!).

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