

## **Ground Leaf, Not Beef**

Discover the World-Changing Benefits of Eating a Plant-Based, Whole Foods Diet

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## Introduction

Welcome to “*Ground Leaf, Not Beef* – Discover the World-Changing Benefits of Eating a Plant-Based, Whole Foods Diet.”

This e-book was created to answer a question we get asked all the time while running Ground Leaf - a completely plant-based recipe website:

*Why should I stop eating animal products and switch to eating plant-based whole foods? It's a big undertaking that sounds like it's going to take a lot of time and energy, so...why should I bother?*

Knowing this was a burning question for so many people, and also having read so many books and watched so many documentaries on the subject, we decided to create this handy little compilation of info and resources for you. The intention is to summarize the main points of the plant-based argument so you can decide for yourself if it's time to start eating Ground Leaf instead of ground beef... a switch we make incredibly easy for you with all our amazing recipes and how-to videos.

Based on the questions we get from readers and friends all the time, we outlined the structure of your guide to start by covering the main food groups you'll be eliminating - meat, fish, and animal byproducts — and how they affect your health, the environment, and animals. Then we'll hit up some hot nutritional topics like sugar, salt, gluten and oils, and finish with the Ground Leaf Food Guide, what to eat for optimal health, and how to eat without stress...a growing concern for many of us these days.

When you've finished this short, to-the-point handbook, you'll have a clear understanding why eating a plant-based diet of whole foods could be the smartest decision you ever make...for so many reasons.

## **FYI – Challenging Info Ahead**

**“Americans love to hear good things about their bad habits”.**

**- T. Colin Campbell, Author of The China Study**

Before you read further, please know that the first part of this guide has some pretty dark information; there's really nothing pleasant about the slaughter and “production” of animals and their by-products. In short, you're not going to hear many good things about the habit of eating meat.

Once you pull back the curtain of the animal industry and see how meat and dairy products actually land in supermarkets and grocery stores, you can't *un-see* it. But you really can't make a decision this big (changing your diet and lifestyle) without all the facts...and let's just say that the facts aren't as pretty as the Ground Leaf food photos.

But. It is so essential to go into your plant-based journey with eyes wide open, and we can't stress this enough.

While we've done our absolute best to keep the tone of this book light, entertaining (wherever possible), and informative, we are not going to sugar-coat the findings. The truth of this matter is that the benefits of eating plant-based whole foods extends far beyond your health. You're making a decision that also affects the health of the environment and the animals we share the world with. It is a decision to make as a global citizen, and it also happens to be really delicious and satisfying when done correctly - and don't worry, that's what Ground Leaf is here to help you with.

Read on, brave one. Abundant health and a new relationship with your food awaits.

## **A Note On Resources and References: Acknowledging Contradiction**

This guide is about the benefits of eating a diet based on delicious plant-based whole foods.

It is, however, prudent to also note and address up front that there are conflicting bodies of research all over the place when it comes to what we should eat. You've likely noticed.

If you wanted to find research to support becoming a "breatharian" and subsisting on oxygen for the rest of your life, you very likely could. There is so much information out there on eating all sorts of different ways, and everyone seems to have different opinions.

Basically, the rule of thumb is this: You're going to find what you're looking for. And this booklet supports the decision to move to a plant-based diet. Period.

Legions of people, including doctors and PhDs across the world, promote a Paleo diet and say that eating mostly animals and vegetables has transformed their health and helped them overcome disease. Books and papers supporting the benefits of eating fish daily abound. Humans have been drinking milk for the past 7,500 years. Some very popular experts promote the ample use of butter to help keep the cardiovascular system in tip-top shape.

For every qualified, highly educated person telling you to eat meat and animal products, you can find an equally qualified doctor (or two), nutritionist, or dietician promoting the benefits of a plant-based diet.

Regardless of what is actually the "best" way for us to eat, the one fact that everyone seems to agree on is that the animal agriculture industry is a mess; eating meat and animal products is not what it

used to be. “Paleo” - which is supposed to suggest eating the way our ancestors used to eat - isn’t really a thing, because the food our ancestors used to eat is *not* what’s being sold at grocery stores across the country.

The oceans are filling up with pollution, which adds toxic elements to any seafood you can buy, wherever it comes from. Milk is now produced in an assembly line of poorly treated, infected female cows eating genetically modified feed sprinkled with a healthy (but so unhealthy) dose of antibiotics. Butter, as delicious as it may be, is having chemicals and dyes added to improve its texture and yellowness.

Even “organic” and “grass fed” doesn’t really mean much these days beyond being expensive labels farms have to purchase at a premium in order to feature on their products.

Believe it or not, this is not meant to scare you; it’s meant to inspire you.

If the rule of thumb is that you’re going to find what you’re looking for, then what we’re looking for is a way of eating that promotes health, longevity, and happiness, and *doesn’t* contribute to global warming, starvation, and disease.

Taking animals out of the equation means we’ve found it.

## A Word On Extremes

There are some people who would tell you that it's extreme to make big changes to your diet all at once, and that extreme changes tend to not last.

Once you know the whole story behind eating meat and animal products, you'll likely want to make the switch to WFPB and never go back. But, if you're wondering if *completely* avoiding meat is necessary to eat WFPB, the answer to that is totally up to you.

Ground Leaf is a completely plant-based website. There are no animal products in any of the recipes at all, because they're just not necessary. There are so many incredible substitutes for the animal-based foods we used to eat that it is literally no problem at all to eat 100% plant-based and not miss anything. In fact, at this point, it feels more strange to eat meat than not. But that's a feeling that took awhile to kick in.

Eating plant-based whole foods is not something you want to go on and off like a diet; it's way too hard on your body, and won't make you feel good. Plus, we don't want to give you yet another fad to follow for a couple weeks - no way! Our mission is to get you started - *and keep you going* - on your plant-based journey. To do that, we need to look at this shift like a lifestyle; a sustainable way of eating that we just happen to have made delicious and accessible for you through our many recipes and how-to videos.

As you go through this booklet, and as you venture into our awesome recipes and start to notice changes in how you see your food, we strongly encourage you to listen to your body at all times. There are many people who've seen what the animal agriculture business looks like, and never eaten meat again. There are others who have big hopes and make big promises, but just can't pass on the chicken wings.

Do what feels best for you, always stay in touch with your doctor about any large health decisions you're making, and remember that every one of us has different nutritional needs at different times in life. Take your changes as slow as you need to, and enjoy the food along the way. No extremes required.

## Section 1: Meat

To meat or not to meat, that is the question. And the answer to us is a clear *no*.

In this section, we'll go over the main points to consider when you're making this decision for yourself:

- a. Health
- b. The Environment
- c. Animal welfare
- d. Where you'll get your protein
- e. Where animals get their protein.

Remember the question we covered at the beginning of this booklet?

*Why* should I stop eating animal products and switch to eating plant-based whole foods? It's a big undertaking, so...why should I bother?

This section is going to make that crystal clear.

## a. Health Reasons to Stop Eating Meat

You'd have a hard time finding a health or nutrition expert who doesn't advocate eating more vegetables. They are loaded with nutrients, versatile and delicious, and they connect us with the earth. They are a natural disease-prevention strategy that also happens to improve the quality of so many different areas of your life.

Meat, on the other hand, has been shown repeatedly to *contribute* to disease, specifically four of the top health problems in America: Cardiovascular disease, cancer, obesity, diabetes.

### Cardiovascular disease

“Cholesterol is a natural substance produced by all animals, including humans, and it's an essential component of our cells' walls. But when we consume dietary cholesterol, which is only found in animal foods like meat, eggs, and dairy products, it tends to stay in the bloodstream. This so-called plaque is what collects on the inside of our blood vessels, and is the major cause of coronary artery disease.”

- Forks Over Knives

Cardiovascular disease - including heart attack and stroke - is America's #1 killer. If you stop eating meat, your risk of getting heart disease will be reduced significantly, and if you already have heart disease, then eating a plant based diet may actually help to *reverse* it.

By simply cutting back on the cholesterol, toxins, and even protein found in animal products and increasing the amount of nutrients you get from plants, your health - and your heart - can take a step in the right direction.

Recommended reading: How Not To Die by Michael Greger, M.D.

## **Cancer**

“Furthermore, a pattern was beginning to emerge: nutrients from animal-based foods increased tumor development while nutrients from plant-based foods decreased tumor development.”

— T. Colin Campbell, The China Study: The Most Comprehensive Study of Nutrition Ever Conducted and the Startling Implications for Diet, Weight Loss and Long-Term Health

<http://www.medicaldaily.com/who-confirms-eating-meat-causes-cancer-how-did-once-healthy-food-become-so-deadly-358944>

22 scientists from 10 countries met at the International Agency for Research on Cancer to review over 800 studies on the association between cancer and meat consumption. What they found was surprising to them: eating meat (especially red meat) can contribute to cancer.

Processed meats have the highest chance of contributing to cancer, namely colon and stomach cancers, while red meats are also shown to be high in carcinogens - cancer-causing substances - especially when they are prepared under high heat, smoked, or fried.

If meat “supports a carcinogenic effect” (their words not ours) then we support a diet free of meat. Sounds logical, right?

## **Diabetes**

“The poultry industry commonly injects chicken carcasses with salt water to artificially inflate their weight, yet they can still be labelled ‘100 percent natural.’ Consumer Reports found that some supermarket chickens were pumped so full of salt that they registered a whopping 840 mg of sodium per serving—that could mean more than a full day’s worth of sodium in just one chicken breast.”

— Michael Greger, *How Not to Die: Discover the Foods Scientifically Proven to Prevent and Reverse Disease*

In addition to the increased risk of cardiovascular disease from eating meat, researchers at Harvard (<http://harvardmagazine.com/2012/01/a-diabetes-link-to-meat>) have also found red meat consumption to be linked to a higher incidence of type 2 diabetes.

A study of male and female healthcare workers who were followed for 14 - 28 years showed that one daily serving of red meat (the size of a deck of cards) increased the risk of adult-onset diabetes by 19%, and a serving half that big of *processed* red meat (like a hotdog or two pieces of bacon) increased risk by 51%!

Beyond saturated fat, three properties in meat are thought to contribute to type 2 diabetes: sodium, nitrates, and iron. Sodium, in addition to increasing blood pressure, also causes insulin resistance, and is also found in high amounts in processed chicken. Nitrites and nitrates contribute to insulin resistance and have also been linked to impaired function of pancreatic beta cells. And although iron is an essential mineral, heme iron - the readily absorbed type found in meat - can lead to oxidative stress, cell damage, and chronic systemic inflammation, all issues which are connected to the onset of diabetes.

A plant-based, whole foods diet low in sugars is commonly prescribed for people with type 2 diabetes, but we say an ounce of prevention is better than a pound of cure. Why not just eat plant based now and cut your chances of developing adult-onset diabetes in half?

## Obesity

Nearly 70% of Americans are overweight or obese, 35% of Americans are obese, and nearly 7% of the American population is thought to be morbidly obese (<https://www.niddk.nih.gov/health-information/health-statistics/Pages/overweight-obesity-statistics.aspx>). Obesity is linked to all types of cardiovascular disease, depression, stroke, some cancers, and a generally lower quality of life (<https://www.cdc.gov/healthyweight/effects/>).

To draw the parallels between meat consumption and obesity is actually quite simple, because of the condensed energy of meat and animal by-products, as well as the high fat content. (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697260/>) And while eating a plant-based diet does not mean that you're guaranteed to be slim (this is often a matter of *quantity*, as well as quality of food) the simple act of removing animal products from your diet can cut your daily caloric intake substantially, which basically equates to a smaller waistline.

## The positives

Now that we're familiar with the diseases you're susceptible to as a meat-eater, let's switch up our perspective and look at what you will *gain* from switching to a WFPB diet. Cutting back on (or cutting out) meat and eating more plant-based whole foods can contribute to weight loss, reduced inflammation, improved digestion, and an increase in energy. All of these improvements in your health will help you to cut your chances of disease and even death. Smart move.

If you haven't seen it, the film *Forks Over Knives* is centered on the claim that most, if not all, of the degenerative diseases we are afflicted by can be controlled, or even reversed, by rejecting animal-based and processed foods. We would highly recommend that you check out this feature film for more information on the connection between eating animals and poor health.

## **b. Environmental Reasons to Stop Eating Meat**

“I found out that raising animals for food is responsible for 30% of the world’s water consumption, occupies up to 45% of the Earth’s land, is responsible for up to 91% of Brazilian Amazon destruction, is a leading cause of ocean dead zones, habitat destruction, and species extinction. Yet the largest environmental groups that are supposed to be saving our world don’t have this as their main focus?” - Kip Anderson, *Cowspiracy*

### **Greenhouse gases and global warming**

Once you’re eating for health and vitality, you’ll find that naturally your awareness will start going past just you and your world, and you’ll be more aware of your environment. We know lots of people who, once they started to eat whole plant foods, noticed that their senses of smell, sight, taste, sound and touch became more sensitive, and that they noticed a heightened connection with the world around them.

Once you start to connect more with nature, breath, and plants, it breaks your heart in a whole new way to tune in to the news and see the gore and destruction that’s happening to our environment on a global scale. Global warming is a real problem that will (and already does) affect every one of us...it’s not just a cool initiative headed by Leonardo DiCaprio.

*Cowspiracy* is an eye-opening documentary about the impact of animal agriculture on greenhouse gas emissions and global warming. The film brings to light the fact that animal agriculture is responsible for 18 percent of greenhouse gas emissions, which is more than the combined exhaust from all transportation worldwide.

The argument, of course, is that if humans didn't require such a high supply of meat, the animal populations would not be so high, and thus there would be that much less damage to the environment.

### **Water Consumption**

Another benefit of the world eating less meat is that our limited supply of drinkable water would go directly to humans as opposed to the animals being bred to feed humans. It's almost unfathomable to think that agriculture is responsible for 80-90% of U.S. water consumption (United States Department of Agriculture Economic Research Service. 2013). Here we are cutting our showers to the quick and washing dishes without the water running, and meanwhile one quarter pound hamburger requires over 660 gallons of water to produce – enough water to shower for two months.

Not to say that our attempts to be water-conserving eco citizens are futile...they're not. But in comparison to the water that's required to fuel animal agriculture we're talking about a drop in the ocean.

With less people eating meat, the demand goes down, and as the demand goes down, the production of animals requiring so much water goes down. And this is where we're at folks. It's going to be the small changes made at the level of the individual – the consumer – that are going to eventually make the difference.

### **Oceans and Runoff**

Speaking of oceans, a lot of people don't understand the scope of damage that the mass production of livestock can have on the entire ecosystem of our oceans.

“Livestock operations on land have caused, or created, more than 500 nitrogen-flooded dead zones around the world in our oceans, comprising more than 95,000 square miles of areas completely devoid of life. So, any meaningful discussion about the state of our oceans has to always begin by frank discussions about land-based animal agriculture, which is not what our conservation groups, Oceana being the largest one in the world right now, the most influential, as well as others...that's not what is at the apex of their discussions.”

- Dr. Richard Oppenlander, Author, “Comfortably Unaware”

To be blunt, tons of *animals* will naturally resort in tons of animal *excrement*, right? In the U.S. alone, factory farm animals create more than 1 million tons of manure per day — *three times* the amount created by the country's human population (<https://www.farmsanctuary.org/learn/factory-farming/factory-farming-and-the-environment/>). So what's a factory-farmer to do with all that crap?

The manure from factory farms is usually stored in massive, open-air pits on the sites of the factories. They look like Olympic-sized swimming pools filled with poo. Naturally, the ground leaks, so all the toxins from these animals' excrement seep into the ground killing the soil and running off into rivers, which run into other rivers, lakes, and of course, the ocean.

When it comes to eating meat, it's not just the devastating fishing industry that harms the ocean. Factory farming and all the waste and toxic by-products that go along with it end up in our oceans, and without our oceans, we will not be able to survive, simple as that.

How's that for incentive to cut meat from your diet?

### **Food consumption / World hunger**

When you think about it, it's actually quite a luxury to be sitting here, reading a book about choosing which kinds of food you want to put in your body. A lot of people in our world do not have these options available, not to mention the ability to be making such a conscious decision about what to eat. For most of the world, you're happy with what you get.

The production of animals in the factory-farm system requires so much food it's unbelievable.

- 70% of all grain produced in the United States goes to factory farms to feed animals, meanwhile close to 49 million Americans per year experience hunger or food insecurity.
- 82% of starving children live in countries where food is fed to animals, and those animals are exported and eaten by western countries.
- It takes 16 pounds of grain to produce just one pound of meat...again, food that's feeding animals instead of feeding humans.
- The world's cattle consume the same number of calories in a year that it would take to feed 8.7 billion people—more than the entire human population.

### **Degradation of rainforest**

According to National Geographic, if we keep up our current rate of deforestation, all of the rainforest in the world could vanish within the next 100 years. Besides the obvious loss of habitat for millions of species, this is also a huge problem for climate change. Trees essentially regulate the temperature of

the air through a process called *evapotranspiration*. No trees means Earth's natural cooling system gets shut down, which means big trouble for global warming.

Agriculture is the leading cause of deforestation in the world, according to National Geographic and countless other sources, and The Wageningen University and Research Centre similarly reports that, "Agriculture is estimated to be the direct driver for around 80% of deforestation worldwide." And the forests aren't just being cut down to provide space for grazing livestock; farmers also need to *grow food* for said livestock because these animals require large quantities of harvested feed to move from birth to slaughter.

Once the trees are cut down, and the land is cleared, the acts of grazing and producing genetically modified feed then destroys the earth, rendering the soil barren, and essentially killing the possibility of ever growing food or anything else for that matter on the land again...especially in the Amazon rainforests. Although attempts to focus the decline of forests on urban expansion have been made, the numbers are clear that forests are not being cleared to make room for humans to live, but instead they're being cleared to make room for humans to eat meat...meat that we really don't *need* to eat in the first place.

### c. Animal Cruelty

Now that we've discussed the health and environmental implications of the meat industry, let's talk a bit about a whole other level of heartbreak: animal cruelty. As much as we can quantify statistics around heart disease, cancer, and environmental degradation, there are no numbers that can be associated with the pain felt by these innocent beings as they are being tortured, mutilated, and slaughtered for our consumption and entertainment.

As with any massive, faceless, corporate industry, factory farming strives to maximize output while minimizing costs—which will always happen at the animals' expense. This is done by limiting the quantity of space the animals have, as well as the quality of that space, among innumerable other injustices. Slaughterhouses have unspeakable secrets, some of which have been brought to light by brave photographers and video journalists in candid and near-traumatizing films such as *Earthlings*, *The Cove*, and *Food Inc.*

Worldwide, it's estimated that nearly 70 billion farm animals are raised for food – and killed for food – each year. (<https://www.dosomething.org/us/facts/11-facts-about-animals-and-factory-farms>) The most exploited and abused animals are pigs, cows, chickens, and turkeys, which are forced to live in terrible conditions that don't even come close to their natural environment. In addition to being terrible for these little animals, the stressful conditions also affect the meat and by-products that are produced, because of high levels of stress hormones present in the animal when they are slaughtered.

Habits that are natural to the birds and animals are often detrimental to their “processing,” so instead of allowing them to behave true to their species, factory farmers take painful and intrusive actions to prevent inconvenience. Chickens, which can revert to cannibalism when stressed, have their beaks removed so they're unable to eat their neighbors, or pick at themselves. Turkeys have their wings clipped so they can't fly, and so they get fatter and sell at a higher price. Baby cows are often never allowed to feed from their mother, and instead are torn from them at birth to be placed in a pen

where they can barely move, and live their lives with little to no interaction or connection with the other animals. Pigs - naturally sociable and intelligent animals – are kept in horrific conditions, developing rot on their feet, and lesions on their bodies from the unclean conditions and utter lack of care and attention.

The atrocities that happen on a daily basis all across America in factory farms are far too horrific and numerable to even comprehend. The irony is, of course, that as soon as someone reports a dog being mis-treated, or a cat being harmed by its owner, the internet explodes. But really, what is the difference between a dog and a pig other than our perception? How can we jump to the defense of a cat, and sit down and eat a baby lamb for dinner?

Being an “animal lover” doesn’t have borders or boundaries, isn’t species-specific, and it doesn’t stop with animals that you can cuddle and pet. If you are a true animal lover, you will make food decisions that do not support the awful abuse that happens on factory farms. Period.

This is hot subject matter. It’s polarizing, and intense, and often the subject of great debate...but really, it’s quite simple: if you eat conventional meat or animal by-products, you are directly or indirectly contributing to animal abuse.

Make the loving, caring choice, and just say no to eating flesh.

#### **d. Where Do You Get Your Protein?**

**Protein is not the key to weight loss.**

**It is actually one of the biggest factors behind the obesity epidemic.**

**- Dr. Garth Davis, author of “Proteinaholic”**

Now that we’ve covered the health, environmental, and animal cruelty aspects of eating meat, that leaves us with a very important topic to discuss: protein.

“So, where do you get your protein?”

This is *by far* the most popular question for people who eat a plant-based diet, and for good reason. Protein forms the building blocks of muscle repair and healthy skin, hair and nails. This essential macro-nutrient is also critical to maintain a wide array of body functions, such as immunity, mental capacity, and even mood stability. And that’s just the start.

Let’s explore some of the more common questions that a plant-based person gets when it comes to protein.

#### **1. How much protein do you actually need?**

As with most things to do with protein, this is a highly debated question with many variables and no one, simple answer. For the purposes of this article, we’re going to assume you are not a high-performance athlete, body builder, or a pregnant woman. Protein needs can vary depending on our age, sex, activity

levels, and even body weight. But it need not be so complicated.

Experts at Harvard Medical School say that to determine your RDA (recommended daily allowance) for protein, you can multiply your body weight in pounds by 0.36.

(<http://www.health.harvard.edu/blog/how-much-protein-do-you-need-every-day-201506188096>) For those of you on the metric system, the calculation is 0.8 grams of protein per kilogram of body weight.

(<http://www.health.harvard.edu/blog/how-much-protein-do-you-need-every-day-201506188096>) If you'd like a simple tool, here is a link to an online protein calculator

(<http://fnic.nal.usda.gov/fnic/interactiveDRI/>). Do keep in mind that these are templates, and that the most reliable source is often how your body feels, and the symptoms you're actually experiencing on a day to day basis.

## **2. How can you get enough protein from a plant-based diet?**

The most simple answer to this question is: easily.

As long as you're armed with the right knowledge, and being relatively conscious of what you're eating, you should not have any concerns about being protein-deficient. Just ask ultra-endurance athlete Rich Roll, who's also a graduate of Stanford University.

"If you ate nothing but a variety of fresh fruit, you *still* would never suffer a deficiency of protein (or even any particular amino acid). Short of starving yourself, it's almost impossible. Despite the incredibly heavy tax I impose on my body, training at times upwards of 25 hours per week for ultra-endurance events, this type of regimen <plant based> has fueled me for years, without any issues with respect to building lean muscle mass. In reality, I believe that eating plant-based has significantly enhanced my ability to expedite physiological recovery between workouts — the holy grail of athletic performance enhancement."

(<http://www.forksoverknives.com/slaying-protein-myth/>)

Knowing that it is relatively simple to meet your daily requirements of protein, there are a few nuanced points to consider:

- a. *Quantity* of protein - how much protein does plant-based foods actually have?
- b. *Quality* of protein - how do plant and animal proteins differ, and is one better than the other?

### **1. Quantity of protein - how much protein does plant-based foods actually have?**

Research has shown that all plants contain protein and at least 14% of the total calories of every plant are protein. Broccoli contains more protein per calorie than steak and, per calorie, spinach is about equal to chicken and fish. (<http://www.wholefoodsmarket.com/blog/whole-story/yes-plants-have-protein>)

If you check out the Ground Leaf Food Guide (<http://groundleaf.co/food-guide>), you will find detailed information on the food groups of a plant based diet, including the protein sources such as nuts and seeds, beans and legumes, grains, and of course, fruits and vegetables.

### **b. Quality of protein - how do plant and animal proteins differ, and is one better than the other?**

Yet another source of great debate, the plant-based community's stance is that plant sourced proteins are better than animal proteins for a multitude of reasons. Not only are they easier to digest, and minimize inflammation instead of causing inflammation, but they also come with the added "gifts" of fiber, antioxidants, minerals, vitamins, and phytochemicals, whereas animal proteins come with saturated fat, cholesterol, and added hormones and antibiotics.

(<http://www.onegreenplanet.org/natural-health/explain-like-im-five-why-is-plant-protein-better-than-animal-protein/>)

After reading all of this, if protein continues to be a concern for you, plant-based supplementation is widely available in the form of pea proteins, hemp proteins, and even rice proteins. Many of these supplements come in the form of yummy protein shake powders, compact bars, and even little easy-to-take capsules. It's best to try and get all of your nutrients from whole foods, but it's also important to stay flexible.

The next time someone asks you "Where do you get your protein," hopefully you'll feel more equipped to answer the question. And if you're having any doubts, you can always say "from pretty much every food I eat."

#### **e. Where Does Your Protein Get Their Protein?**

Digging into the subject of eating animals brings up a lot of really interesting points. For example, taking a moment to consider where your protein gets their protein. If you think about it, massive beasts like cows, and large animals like pigs must be getting protein from *somewhere*, right? Of course.

But wait...they only eat grasses, don't they?

If plants have enough proteins to support cows, pigs, lamb, and even bison, then plants certainly have enough protein to sustain human muscle development. In fact, eating plant-based proteins essentially cuts out the "middle man," and allows for direct uptake of nutrients without them needing to be processed first by an animal.

Betcha never really thought about it like that, right?

## Section 2 - Dairy

Dairy has been linked to an increased risk of cancer development, a higher incidence of Type 1 Diabetes and Multiple Sclerosis. With all of the amazing substitutes out there for milk, why would you want to continue drinking this unnatural substance that's meant for baby cows?

This section will help you see how cutting dairy can help your health and the environment, and ironically will help you have stronger bones...because milk does not equal calcium.

### **a. Health Reasons to Quit Dairy**

**“Intensive and successful marketing by the dairy industry  
(including slogans like “Milk – It Does a Body Good” and “Got Milk?”)  
have reinforced a broadly ingrained belief that dairy is good for our health.**

**But is it, really?”**

**- Forks Over Knives Documentary**

### **Dairy and hormones**

One of the most talked-about issues around dairy is the hormones that are present due to farmers messing with nature and creating scenarios where these poor momma cows are pregnant for more than 300 days of the year. The more a cow is pregnant, the more hormones are in her milk, and if you're wondering why this is a bad thing, just think of it this way: those hormones are supposed to take a baby cow from 90 pounds at birth to nearly 2000 pounds within two years.

On top of these “naturally occurring” hormones are the hormones that are given to the cow to induce higher levels of milk production. Milk from a pregnant cow contains up to 33% more estrogen than from a non-pregnant cow, which can contribute to mood swings, excess estrogen in the body, and an imbalance of natural hormones.

Dairy also messes with our insulin levels, which is why it's so frequently attributed to causing acne and other skin conditions. All dairy contains insulin-growth factor, which can cause blood-sugar swings, and unstable insulin levels. This can also contribute to weight gain, and frustrations with managing and maintaining a healthy body weight. (<http://www.onegreenplanet.org/natural-health/how-dairy-affects-your-hormones/>)

Basically, there is no such thing as “hormone-free milk” (despite what marketing may suggest) because female cows produce hormones just like female humans produce hormones, and those hormones end up in your milk – end of story.

### **Dairy and Obesity**

Not only is dairy full of hormones that we don't need, but it's also full of fats and calories that can lead to weight gain and obesity. The U.S. dairy industry has attempted to create a buzz around the weight-loss benefits of consuming dairy products based largely on short-term studies that were – no surprise here – self-funded. Research that digs a bit deeper has found that there is little evidence that an increase of dairy products can lead to weight loss, and in fact found that one study in adolescents was associated with an increased body mass index. (<https://www.hsph.harvard.edu/obesity-prevention-source/obesity-causes/diet-and-weight/>)

Really, it makes sense that cutting dairy can help to cut extra weight, if that's what you're going for. Dairy is one of the most calorie-dense foods you can eat, up there with meats and oils. It's hard to digest, which can also contribute to weight gain and water retention, and it can also cause sluggishness, which is never good for your get-up-and-go attitude. Plus, just one piece of cheese can have over 100 calories...and who ever has *just one piece* of cheese? Nachos anyone?

### **Dairy and Cardiovascular Disease**

Because of the high levels of saturated fat in dairy, it is commonly accepted that cutting back can be a positive step towards a healthy heart. What about low-fat dairy, you may ask. In addition to higher levels of processing, and unnecessary ingredients like sugar being added to replace the fats, low-fat dairy is just as risky, and super *not delicious*. Has anyone else noticed that skim milk has subtle tones of blue? No thanks.

## Dairy and Osteoporosis

Contrary to the American Dairy Association's campaign to get the public to focus on the bone-building properties of dairy products, dairy can actually have a negative effect on your skeletal system.

Our bodies are constantly seeking homeostasis, which basically means that there are always tasks running in the background to help keep things in balance. If you go out in the cold, your body will heat up so you maintain your base level body temperature. If your body's fluid levels are high, your kidneys will signal the excretion of more urine, whereas if your body's fluid levels are low, antidiuretic hormone signals the kidneys to retain fluid and decrease urine output.

In this same way, dairy can inadvertently lead to weak and brittle bones, and even osteoporosis. In fact, the countries that consume the most dairy also have the highest levels of osteoporosis.

(<https://authoritynutrition.com/is-dairy-good-for-your-bones/>) Because dairy has an *acidic* effect on the blood, and our bodies need to stay at a certain level of acid/alkaline balance, high dairy intake can actually cause your body to leech calcium from your bones in order to neutralize the acidity in your blood. The same goes for meat. By simply cutting dairy, and getting your calcium from plant-based sources, you will increase the strength of your bones and reduce your risk of osteoporosis as you age.

When it comes to bones, milk does *not* do a body good.

## b. Environmental Reasons to Quit Dairy

**“The American Lung Association says The San Joaquin Valley - where nearly 20% of America’s milk is produced - is one of the most dangerously polluted areas by dairy farms in the country. America’s highest levels of the tiny, airborne pollution particles that are linked to ailments like heart attacks and strokes are exacerbated by heavy truck traffic and the dairy and feed processing facilities.**

**Some residents don’t even let their kids play outside.”**

**- The New York Times**

The dairy industry has a massively negative impact on the environment, one that is constantly under scrutiny by environmental lobbyists, and conversely one that’s being swept under the rug by lobby groups in favor of the profit margins created by this increasingly popular commodity.

The *supply* of dairy has increased so much since after the first world war that it’s crucial for the success of the industry that *demand* stay high. Millions of dollars a year are pumped into the marketing of dairy products, and as a result, dairy consumption has jumped 32% from 1990 to 2005, and is expected to jump another 50% by 2050 ([https://www.nytimes.com/2015/05/04/business/energy-environment/how-growth-in-dairy-is-affecting-the-environment.html?\\_r=0](https://www.nytimes.com/2015/05/04/business/energy-environment/how-growth-in-dairy-is-affecting-the-environment.html?_r=0))

Depending on the farming practices of individual farmers, the impact that a dairy farm has on the environment can range between devastating to just plain *bad*.

Milk production has been shown to have a substantial footprint on:

- Air quality (greenhouse gas and nitrogen emissions),
- Water quality (run-off of fertilizers, pesticides, antibiotics, hormones, and pathogens)
- The soil and surrounding ecosystems (land use, cropping practices, fertilizers, and pesticides).

- Water usage

### **Air Quality**

According to the United Nations Food and Agriculture Organization, the dairy industry is responsible for four percent of total global greenhouse gas emissions

(<http://www.fao.org/docrep/012/k7930e/k7930e00.pdf>). Milk production, processing and transporting, fattening and slaughtering cows, and even the methane that comes from the cows passing gas are all contributing to this ghastly number.

Areas where dairy farms are located suffer the most directly, although all of us suffer from global warming, of course. Residential areas close to dairy farms report high levels of tiny, airborne particles that contribute to ailments like heart attacks and strokes. Residents in the San Joaquin Valley have reported that they do not go outside because of the health risks, which increase exponentially the closer they get to the dairy farm. ([https://www.nytimes.com/2015/05/04/business/energy-environment/how-growth-in-dairy-is-affecting-the-environment.html?\\_r=0](https://www.nytimes.com/2015/05/04/business/energy-environment/how-growth-in-dairy-is-affecting-the-environment.html?_r=0))

### **Water Quality**

The Yale School of Environmental Studies reports that opposition to large dairy operations is growing after improper handling of waste has resulted in contaminated waterways and aquifers

([http://e360.yale.edu/features/as\\_dairy\\_farms\\_grow\\_bigger\\_new\\_concerns\\_about\\_pollution](http://e360.yale.edu/features/as_dairy_farms_grow_bigger_new_concerns_about_pollution)). And while most milk cartons show pictures of happy cows grazing in small farms, the truth is that more than 50% of America's milk is produced by just 3% of the dairy farms in the country. Most of these large-scale operations have upwards of 1,000 cows, where the bigger plants now have 15,000 or more cows on their operating facilities. With an increased concentration of milking cows naturally comes an increase in manure production, which is where the problem lies.

Run-off from dairy farms has seeped into aquifers and surrounding bodies of water, elevating levels of nitrogen, and causing concern from environmental lobbyists. In one small American town – Lincoln, located in the Kewaunee County, WI – around 50% of their groundwater wells have water that exceeds bacteria and nitrate safety standards. Many of the farms across the country lack sufficient information and plans around how they will process and eliminate the *tens of millions* of gallons of manure produced by the cows.

### **Soil and Surrounding Ecosystems**

Naturally, what's being leaked into waterways and surrounding lakes and streams is also being leaked into soils, rendering the land that surrounds dairy farms barren and infertile. As the farms get bigger, the land that's used is also expanding, and as we discussed in the previous section, land that's used for cows is often ruined by their grazing, trampling, and food production, not to mention the seeping of toxic manure substances into the ground. The fertilizers and pesticides that are used as part of modern conventional dairy farming are also a huge concern.

### **Water Usage**

The amount of water required to sustain a dairy farm is absolutely staggering. Animal agriculture is responsible for one-fourth of the total global water footprint, with dairy representing 19% of this amount. (<http://www.onegreenplanet.org/animalsandnature/the-dairy-industry-and-the-environment/>) Water is needed for cleaning dairy facilities and all the equipment being used, hydrating cows, and also producing feed for the cows.

When you add up the water used for cleaning, feed, and hydration, this amounts to nearly 5,000 gallons of water *per day, per cow*. For one dairy farm with 700 cows, this is 3.4 million gallons of water per day. Now consider that there are 9 million dairy cows at any given time in the United States. The numbers are enough to make your head spin.

Let's close this out by taking a look at how much water is required (a lot of it in drought-ridden California) to produce popular dairy foods:

- 1 cup of yogurt: 35 gallons of water
- 2 slices of cheese: 50 gallons of water
- 1 cup of Greek yogurt: 90 gallons of water
- 1 stick of butter: 109 gallons of water

(<http://www.motherjones.com/environment/2014/03/california-water-suck>)

### c. **But What About Calcium?**

Now that you're well versed about the dairy industry, you can see both the health and environmental reasons why it's a smart idea to pass on cow's milk and its damaging by-products. But that leaves a very important, popular, and valid question: where do you get your calcium?

A whole food, plant-based diet is abundant with delicious opportunities to meet your calcium needs. As long as you're eating a variety of whole foods found in their natural form, you're very likely getting all the calcium you need to meet your recommended daily intake. (<http://www.forksoverknives.com/milk-myth-why-you-dont-need-dairy-for-calcium/>)

Rosane Oliviera, PhD and Assistant Professor at the Department of Public Health Sciences at the School of Medicine at the University of California puts it very simply:

"At the end of the day, the 'disease' of calcium deficiency from a calorically sufficient natural whole food, plant-based diet is nonexistent."

Truth is, billions of dollars have been spent since the early '80s advertising milk as a commodity (<http://milk.procon.org/view.resource.php?resourceID=660>), but when you look at the facts, it's simply not the best source of calcium, not back then, and certainly not now.

So, what foods should you make sure you're eating to keep your calcium levels in their ideal place? Kale, collards, and beet greens are very high in absorbable calcium, and a serving of broccoli, cauliflower, or watercress would all provide you with more calcium than a glass of milk, partly due to the higher bioavailability of the plant-based foods (<https://www.forksoverknives.com/milk-myth-why-you-dont-need-dairy-for-calcium/>). Sesame seeds, chickpeas, and pumpkin seeds are also packed with calcium, and have the

added bonus of proteins and fiber too.

When you factor in all the potential hazards of drinking milk and eating dairy, Ground Leaf nominates whole, plant-based foods for the calcium win.

### **Where do cows get calcium?**

Every animal requires calcium, including cows. Like magnesium, copper, and iron, calcium is a mineral that's found in the soil. From soil, it's then transferred to plants, and from plants, it's transferred to the animal eating those plants.

How do you think grown cows get their calcium? Are they magical, calcium-producing beasts? Of course they aren't; naturally grazing cows (not those on feed lots) get their calcium - enough of it for their mighty bones to support an average body weight of 1,500 pounds - exclusively from plants

(<http://www.smh.com.au/news/big-questions/humans-drink-milk-for-calcium-but-if-cows-just-eat-grass-where-dothey-get-their-calcium/2006/04/20/1145344210352.html>). Which begs the question: why not support your health, the environment, and *the cows*, and just skip the middle man?

It's not milk that "does a body good," it's calcium; and you do not need to drink milk to get your daily requirements.

### **Section 3 – Eggs**

While we work our way through the consequences of eating meat, dairy, and other animal products, inevitably eggs must be discussed, even though a lot of people don't stop to think of them as potentially harmful. Just like so many animal products, eggs have been a part of most of our lives since we were kids.

### a. Eggs, Health, and Nutrition

Although a lot of people in (mostly) the paleo communities rave about the nutrition in eggs, claiming they are “full of nutrition” and “a perfect protein” research indicates otherwise. Eggs are also referred to (in the plant-based world, granted) as “cholesterol bombs,” and are actually the single biggest source of cholesterol in the American diet, right up there with fast food burgers

(<https://breakingmuscle.com/fuel/the-great-egg-debate-4-reasons-you-need-to-stop-eating-eggs>).

Studies have shown that even eating just one egg per day can be associated with a shorter lifespan (<https://nutritionfacts.org/topics/lifespan/>), and a higher incidence of cardiovascular disease – America’s #1 killer. <https://nutritionfacts.org/video/eggs-and-cholesterol-patently-false-and-misleading-claims/>

The protein in eggs, even though it may be considered “complete” is ultimately an animal protein – eggs are, after all, unborn chicks in a shell – and we know now that animal proteins are harder for our bodies to absorb and assimilate. Beyond that, unlike beans, pulses, nuts, seeds, and *even straight-up vegetables*, eggs do not come with fiber, and are therefore a less complete food in general. Loads of us do not get enough fiber in our diets, and eating eggs isn’t going to help us balance that out, which is perhaps one reason why eating eggs is frequently associated with colon cancer. *So*, not only are eggs harder to digest than plant-based proteins, they are also harmful for digestion in general.

Beyond just cholesterol and protein is, of course, the fact that in most operations, hens are subjected to really nasty, cramped, and unhygienic living conditions, and also because eggshells are fragile and porous...which creates a perfect breeding ground for salmonella, the leading cause of food poisoning in the U.S. (<https://www.forksoverknives.com/whats-wrong-with-eggs/>) And if heart disease, colon cancer, and salmonella weren’t enough reasons for you to *not* “get crackin’,” let’s touch lightly on genetic manipulation.

## b. Eggs, Genetic Modification, and Those Poor Chickens

### GMO Chickens

Hens in nature spend a lot of their life's energy on reproduction (laying eggs is not surprisingly a massively taxing labor), and naturally lay between 10 - 30 eggs per year, depending on circumstances. Industrial hens are bred to lay close to *300 eggs per year*, sometimes more, which is upwards of ten times their natural output. The genetic modification of hens and chickens is regular practice, and has been since the 1950's when scientists started to practice selective breeding to increase meat production. Since then, most lines of egg-laying hens have been genetically altered (hence the validity of calling a chicken a GMO) to identify and exploit "profitable biological traits" for increased poultry meat and egg production. (<http://www.foodispower.org/hens-raised-for-eggs/>)

In addition to being kept in dirty little cages, hens are subject to various other intrusions, such as having their beaks clipped by a heated-blade device at birth to prevent them from pecking at themselves and their neighbors. Because these poor hens are so designed for rapid weight gain, they naturally suffer from effects like lameness, skeletal issues, and decreased fertility. The latter is obviously a problem for an egg-obsessed farmer, so laying hens are often fed half of the calories they would normally eat in an attempt to keep them under weight and hence fertile. And instead of staying warm in the feathers of their mother and naturally being brought to the point of hatching, chicks are taken at birth to incubators, where they hatch under artificial conditions designed to systematize and enhance the hatching process. Is it any wonder that these birds - starved, altered, and devoid of any natural interaction - resort to cannibalism, as well as the tendency to self-consume?

(<http://www.onegreenplanet.org/animalsandnature/the-genetically-modified-chicken-how-we-have-altered-broiler-chickens-for-profit/>)

## Two Types of Chickens

At least the female chickens that are genetically modified and *engineered* to produce-produce-produce are allowed to live – for as long as they are of use, anyway. Male chicks are considered an “unwanted byproduct” of egg production, and are killed at birth because they don’t represent a profit margin for the farmer ([http://kb.rspca.org.au/What-happens-with-male-chicks-in-the-egg-industry\\_100.html](http://kb.rspca.org.au/What-happens-with-male-chicks-in-the-egg-industry_100.html)).

There are two types of chickens: layer hens and broiler hens. Both are bred for a specific purpose, neither of which the male chick can fulfill. At birth, baby chicks are “sexed” – the males separated from the females – and sorted. All males and weak females are then taken to be killed, which can be done in any manner of ways: gassing, maceration (tossed in a grinder machine), or in less regulated and illegal cases, simply thrown in the garbage to die.

Overweight, disproportioned, stressed to the max, and condensed into horrific living conditions is simply the reality of a conventional laying hen, but what about eggs that are labeled “organic,” “free-range,” and “natural”?

## Free Range & Organic Eggs

The subject of trendy eggs is both controversial and demoralizing. Because images of battery cages and damaged, sick hens have made their way to the consumer, naturally there has been a resulting demand for eggs without all the guilt. As a result, governing bodies, farmers, and corporate entities depending on the mass consumption of eggs have created loosely governed laws and regulations to appease their consumers. Terms like “free range,” “natural,” “organic,” and even “ethical” have been slapped onto egg cartons with a pretty picture of a barn and a happy chicken cartoon in an attempt to turn the tides.

Sadly, consumers far and wide have fully bought in to the marketing parade around eggs, even though they are not necessarily more nutritious, humane, or environmentally sound.

(<https://www.ncbi.nlm.nih.gov/pubmed?term=21673178>)

According to Wikipedia, a “free range” egg is one that is “laid from a chicken who may or may not have had access to the outdoors.” All of the terms to describe this new, trendy egg have different meanings in different countries, and are not necessarily regulated. Eggs can technically still be called “free range” even if they’ve never seen the light of day, because even in countries where the terms are regulated, the regulations are loose and forgiving – to the farmer, that is, not the baby chicks on their way to the grinding machine.

Eggs are both an ethical catastrophe and a nutritional hazard...two strong reasons to *get crackin’* and stop eating them altogether.

## Section 4 – Fish

For some reason, a lot of people who are “veg-curious” get it in their heads that eating fish is less harmful for health, animals, and the environment. And while a nice roasted salmon on a summer night, and fish tacos on your Mexican vacation are no doubt to be missed, once you see the facts about fish, those comfort foods become far less comfortable.

### a. Pollution and the Oceans

There is no shortage of media coverage on the pollution levels of our oceans, which are getting worse every day. Overfishing, dirty, toxic water, inland fish-farming, dangers of mercury, and radioactive, mutant fish are all over the news. When the Fukushima disaster struck Japan, the whole world was worried: Are all the fish going to be contaminated by nuclear radiation? Yes, of course they are. But really, that's just the beginning of our concerns.

Until recently, humans and officials in charge of waste management were of the opinion that the oceans were so vast and deep that they could just magically harbor all of our waste without consequence. In fact, proponents of ocean-dumping even had a spiffy catchphrase: *The solution to pollution is dilution*. How's that for poetically irresponsible?

Now that we have social media and unencumbered access to photos and news around the world, we can see that the solution to pollution is NOT dilution, and in fact the state of our oceans, a once stable and flourishing ecosystem, is not only depressing to behold, but on the verge of collapse because of such attitudes.

Pollution is defined as the introduction of harmful contaminants which are outside the norm for a given ecosystem. Common pollutants of the ocean include herbicides, pesticides, chemical fertilizers, detergents of all kinds, plastics by the ton, and other solids that collect at the ocean's depths where they are introduced into the global food chain. Research is even showing that pharmaceutical drug components which are not fully processed by our bodies eventually end up in fish. To translate: Our treated human excrement is polluting the ocean, fish are eating it, and we are then inadvertently consuming our own (or mass amounts of other people's) feces.

## Dead Zones and Twirling Trash

**“It could be the plastic bag from the supermarket that the wind takes away, or the microfibers that come out when I wash my polar fleece in my washing machine at home. The ocean is downstream of everything, so all this plastic that doesn’t end up in a landfill ends up in the ocean”**

**– Enric Sala, National Geographic explorer-in-residence and marine ecologist**

As we discussed earlier, it’s not just the dumping of chemicals and trash directly into the ocean that is affecting this precious ecosystem. Nitrogen-rich fertilizers applied by farmers, as well as the toxic waste that comes from millions of factory-farmed animals, are released into the environment far upstream from the coastlines. These toxic elements end up in local streams, rivers, and ground water, and are eventually deposited in bays, deltas, and estuaries. Sometimes, this excess of nutrients in the water can cause massive blooms of algae which rob large areas of the ocean of oxygen and causes animal life to suffocate and die. These are called Dead Zones – areas where little or no marine life can survive - and according to scientists, over 400 of them have popped up all over the world over the past couple decades.

On top of the horrifying reality of runoff and Dead Zones is the more direct issue of garbage accumulating in the oceans. Years of fishing net, irresponsibly discarded into the water, collects and tangles marine life, strangling and killing them silently and in massive numbers. Bags, foam, plastics, and other hard and non-decomposing items from land and ships are frequently consumed by marine life mistaking them for food. The results are horrific: Fish filled with plastic in their bellies, and dolphins eating and becoming ensnared in hooks, line, and cellophane are just a start.

In certain areas, ocean currents can collect trillions of pieces of plastic and other garbage into giant twirling rubbish patches that resemble underwater tornadoes of trash. One of these is so massive it’s

estimated to have reached the size of Texas, and has even earned its own name – The Pacific Trash Vortex.

So what does all of this mean for the fish lovers in the audience? Read on, if you're sure you want to know.

## b. Fish Health and Your Health

Today's fish have got it rough. Not only is the water they inhabit filled with chemicals and swirling garbage, but the food they eat is very likely to have consumed trash as well, which naturally means that they are both directly and indirectly eating the contents of our trash-bins. Radiation is a huge global concern, and in fact some studies have shown 100% of fish samples have tested positive for nuclear reactor by-products cesium-134 and cesium-137

(<http://www.washingtonsblog.com/2012/05/absolutely-every-one-of-the-15-bluefin-tuna-tested-in-california-waters-contaminated-with-fukushima-radiation.html>).

If the fish are infected, how does that affect people eating them?

The main concerns around eating fish, both from a health and ecological standpoint, are mercury, radiation, and general pollution.

### **Mercury**

Mercury itself is a naturally occurring element present throughout the environment in plants and animals. The problem lies in the amount of airborne mercury that makes its way into water sources as a by-product of human industrial activity like coal-fired electricity generation, smelting, and waste incineration (<https://www.scientificamerican.com/article/how-does-mercury-get-into/>). And although the FDA confirms that fish is the main source through which Americans will be exposed to mercury, they also advocate the consumption of fish for heart health and proper growth and development of children. (<http://www.onegreenplanet.org/animalsandnature/radiation-and-mercury-in-fish-should-americans-be-concerned/>) It's unclear how a governing body on our health can encourage the consumption of an undisputed neurotoxin at a child's most sensitive period of neurological development in one paragraph, and caution that mercury can be harmful to unborn babies and young children in the next.

Mercury poisoning is devastating for the human nervous system, and can contribute to fatigue, intellectual disability, headaches, joint pain, and failing memory and concentration. Pregnant mothers are strongly encouraged to avoid exposure to mercury, as high levels can contribute to increased chances of children with autism, brain damage, blindness, and heart, liver, and kidney disease. One of the main reasons people eat fish is because they are told that it is good for heart health, but Belinda Linden, head of the British Heart Foundation, has commented that the dangers of mercury in fish cancels out any benefit that the fish oils may offer. A study on men showed that those with the highest levels of mercury also had higher LDL and total cholesterol levels, and showed a 70% higher chance of death from an acute coronary event...aka a heart attack.

(<http://www.onegreenplanet.org/animalsandnature/radiation-and-mercury-in-fish-should-americans-be-concerned/>)

The devastating effects of mercury prompt the obvious question: are *all* fish affected? Some sources say yes, that no fish is protected from the exposure of this heavy metal. But there are some fish which are much higher in mercury than others, and this is linked to how high they are in the food chain. Bio-accumulation is basically the accumulation of substances within an organism, and in this case, refers to heavy metals which are not just absorbed by *being* in the water, but also from *consuming* other fish which have absorbed their own levels of mercury toxicity. For this reason, experts recommend that if you do eat fish, stay away from larger fish like Bluefin tuna, king mackerel and marlin, bluefish, shark, swordfish, wild sturgeon, sea bass, blue crab, lingcod, mackerel, sea trout, snapper, halibut, sable fish, and blackfin, albacore, and yellowfin tuna.

If you want the full list of which types of fish are highest and lowest in mercury, you can check out this handy guide from the non-profit organization Environmental Defense Fund (<http://seafood.edf.org/>)

Or, you could virtually eliminate the hazard of consuming radioactive materials, pollutants, and heavy metals via dirty seafood, and simply cut fish out of your diet.

## Detoxing From Heavy Metals

Just as an accumulation of mercury and heavy metals can be harmful to your body, they can also present an opportunity to explore detoxing, which can have really positive effects on your whole life. The lifestyle changes that people make to heal themselves from chronic conditions can actually present significant improvements in all areas of life, like improved health, a more balanced relationship with food, and even regulated mood and immune system functioning. As you may have guessed, a whole foods, plant-based diet can work wonders on restoring a system that's been bogged down by mercury, radioactive waste, and other pollution-based toxins.

In addition to cutting out fish, meats, and other animal products, it can be helpful to make some conscious additions to your diet which will help in escorting any accumulated toxic nasties right out the back door. These escorts include cilantro, spirulina, blueberries, dulse, and barley grass juice extract powder (<http://goop.com/a-heavy-metal-detox/>).

### c. Fish Farming – A Dangerous “Solution”

To add insult to injury, not only do the oceans have to deal with our garbage, toxic runoff, and radioactive pollution, but they also have to somehow figure out how they’re going to keep up with the gross amount of over-fishing that robs populations of marine life. Biodiversity is essential for marine life to survive, but because of the declining water quality, increased algal blooms, ocean dead zones, and fish kills, the diversity of the ocean’s ecosystem is under extreme threat

(<http://news.nationalgeographic.com/news/2006/11/061102-seafood-threat.html>). If nothing changes, scientists are estimating that the ocean could be barren of food for humans by the year 2048.

Because of the rampant over-fishing that happens all through international waters, and especially considering the loosely governed and hard to impose regulations around fishing, a concept has been introduced as a purported solution: fish farming. The farming of fish, which means “raising fish commercially in tanks, ponds, or other enclosures for the purpose of producing food” is done in either deeply dug ditches, large plastic bins, or in deep cages set up in actual lakes or parts of the ocean. This system traps masses of swirling, cramped fish in a closed ecosystem which is completely controlled by the farmer, or in many cases the corporation in charge of the operation. Not only does this completely rob the fish of a natural life, but it also exposes them to a host of diseases which are not a concern in the openness of an ocean or a lake – where a fish is *supposed* to be swimming.

Plenty of problems present themselves as a result of crowds of fish swimming together in enclosed spaces. Waste products, including feces, excess food, dead fish, and the prescription drugs that are used to attempt to avoid fish diseases are flushed (often untreated) into waters surrounding a fish farm (<http://advocacy.britannica.com/blog/advocacy/2015/12/the-pros-and-cons-of-fish-farming-2/>). Any disease spreads rampantly through the populations, creating depressing amounts of waste as thousands of fish are simply “thrown out” and written off as waste that’s just a part of doing business.

In many cases, the fish are not only *causing* pollution, but are forced to live in water that is already polluted by sewage, industry, and of course agriculture runoff. There are, of course, serious questions that need to be raised about the health and viability of eating fish raised in these types of conditions. Fish lice spread quickly amongst the population, and viral, fungal, and bacterial diseases from fish farms can spread to affect native fish populations. And because fish farmers will often bring in species which are not naturally found in their local area, these non-native fish can escape and compete with the local fish for food and habitat resources.

Responsible, sustainable fish farming is possible when all the right conditions are met, but this is far too rare an occurrence, especially when eating imported fish which can tend to be subjected to loose regulations. Often, other countries can employ drugs in their farmed fish which are banned in America, and although some testing does exist, only a fraction of imported seafood is tested for contaminants and drug residues when it enters the country (<http://www.berkeleywellness.com/healthy-eating/food-safety/article/how-safe-your-imported-seafood>).

As you can see, the health implications of eating fish are scary, and that's not even taking the environmental factors into account. No matter how you look at it, if more humans were to adopt a plant-based diet, the oceans might stand a chance of having more *fish* in them than *plastic* by the year 2048.

## Section 5 - Honey

### a. What's the problem with honey, bees, and bee farming?

A lot of people don't understand why honey isn't considered vegan. In fact, a lot of people will tell you that not eating honey is "taking it too far," and that honey is a healthy substitute for sugar.

Let's start with what honey really is: essentially...bee vomit.

#### What is honey?

Bees swallow nectar and then regurgitate it to add enzymes to it (bee spit), and then swallow it again and repeat this process up to 50 times to create the golden, sticky-sweet substance we call honey.

Honey is made *by bees for bees* (just like milk is made *by cows for cows*), and bees as well as humans suffer when honey is harvested commercially. Bees create honey to be used as hive insulation, as well as food for their babies and as a store for the winter. When farmers harvest (a.k.a steal) their honey, they replace it with a cheap, sugar-based substance that does not contain the essential nutrients, fats, and vitamins necessary for bees to thrive.

## **b. Why are bees disappearing?**

If having their food and homes taken from them wasn't enough, bees are also transported cross-country to pollinate vast crops, their hives are treated with chemicals to deter parasites, and they're regularly exposed to pesticides and fungicides while they do their oh-so-important work

(<https://www.scientificamerican.com/article/is-life-too-hard-for-honeybees/>).

Jerry Hayes, Florida's chief of apiary inspection, sums it up nicely: "I can feed you a diet of Hershey bars, keep you up all night, truck you around, and spray Raid in your face, and I guarantee you'll get sick. That's kind of what's happening to bees."

If bees were to drop dead tomorrow, it would affect agriculture, plant life, and food sources around the world. Considering the massive implications, a lot of research has gone into exploring why a third of commercial honeybees in the U.S. as well as some countries in Europe have been killed, a phenomenon called "colony collapse disorder" (<https://www.scientificamerican.com/article/saving-the-honeybee/>). Theories have surfaced around genetically modified crops, mistreatment of bees (some farmers simply kill off colonies before winter because it's cheaper), lack of diversity in their diet because they're forced to pollinate monocrops, pesticides, cell phone exposure, and infestation of other species.

Low level, ongoing pesticide exposure and nutritional deficiencies appear to be weakening the host honeybees, and then pathogens do the killing. Hive immunity is a growing concern in the agriculture business, and although a lot is being done to help restore bee populations, we must bring a simple fact to your attention: if these precious insects were allowed to do their own thing and honey weren't such a big deal to industrial interests, a lot of these issues would cease to be a concern.

**But, are bees animals?**

Once you start to make the shift to a plant-based diet and question the logic of eating animal products, you'll notice something even bigger start to happen for you: you'll develop a growing respect for all living creatures. You'll start to consciously avoid stepping on ants on the sidewalk. When you find a big scary spider in your house, you'll take the steps to remove it instead of squashing it, even though the thought of that may terrify you. You may take a keener interest in rescue animals and start donating to rescue farms saving exploited animals and giving them a good life without danger and abuse.

Sometimes, you may feel more of a connection with animals in their ego-less beauty than you do with most humans. So, to answer the question "are bees animals?" No. They're not. They're insects, technically, with superhuman abilities to keep food-bearing plants alive on this planet. And they deserve to be treated with the same respect that we treat any other living, feeling thing. Bees are super smart (<https://www.youtube.com/watch?v=E0N8UYgMGDQ>). They feel pain, and they are just as subjected to systemic breakdown as we humans are when exposed to chemicals, abuse, and enslavement.

### **c. But Isn't Honey Healthy?**

Not necessarily. In fact, in terms of its nutrition, it's really not much better than plain old white sugar (<https://nutritionfacts.org/video/the-healthiest-sweetener/>). As they say, sugar is sugar, and honey is going to raise your blood sugar in a very similar, if not the same way, as gummy bears.

So why not opt for a product that doesn't put entire populations of life-giving, food-pollinating bees at risk? Check out this video to learn about the healthiest sweetener out there, date syrup, and how its fiber and nutrients help to lower insulin spikes, and regulate blood sugar. (<https://nutritionfacts.org/video/the-healthiest-sweetener/>)

Hopefully that helps you understand why honey is not considered vegan; eating the vomit of an insect is most definitely considered consumption of an animal by-product, and necessitates a simple switch to an alternative which will likely be much healthier for you anyway.

Congratulations!

You've made it through all of that horrible (yet so incredibly important) information about the industry of animals, and now you know exactly why eating a whole foods, plant-based diet is the best option.

Animal agriculture, fishing and aquaculture, and animal by-products like milk and honey are harmful to your health, your environment, and the precious animals we share this planet with. Plant based food is where it's at...that's established, right?

Now, we're going to dig into some details around common questions about the "whole food" part of "whole food, plant-based." But before we jump into these controversial topics, let's just get clear on one point: The power of mass media really is incredible; you have to *want* to change your mind, otherwise it's far easier to just believe what "they" are constantly telling you.

When you consider that billions of dollars are poured into advertising for foods like sugar, beef, processed foods, and even chocolate, it makes you think twice about whether or not you should be eating them and supporting these corporate giants. So often, an entire industry's profits can explode purely from manipulative marketing tactics that leverage fear, insecurities, and the desire to be healthy and fit. "*Milk – it does a body good*" is just the beginning of a long line of examples that prove the power of food marketing and lobbying.

Really, when it comes down to it, we are not *just* advocating a whole food, plant-based diet. Part of our mission is also to get you to open your eyes to the industry of eating. Small, vegan companies don't have billions of dollars to market to you, using professionally-shot stock video that's been tested on study groups, before launching an international ad campaign. The beef, chicken, egg, and milk industries have that power. And until you know better, you can't really blame yourself for falling for it. Well, now you know.

As we move forward, please keep an open mind. We've provided as many references and resources for you as possible that prove our points, but we always encourage you to do your own research. Also remember that any researcher will tend to find what they're looking for, if that information is out there. So just be aware: are you looking to validate a plant-based diet, or are you looking for excuses to close your eyes and ignore the facts?

The decision is up to you, and it's not just *your* life that depends on it.

## Section 6 – Oil

If you're thinking that you couldn't possibly eliminate oils from your diet, you're not alone. Most people react with surprise and even frustration when they're told that cutting back on oils (yes, even the "healthy" ones) could have really awesome health benefits.

Since there is so much hype around oil's power to create healthy hair and skin, and how important essential fatty acids are for the immune system...not to mention *the brain*, most people don't understand how oils can be bad for us. But the truth is, eating the whole food the oil comes from is so much healthier than eating the processed oils!

### a. Two Main Benefits of Cutting Back on Oils – Reduce Inflammation and Eat Real Whole Foods

The important thing to remember is that cutting back on oils doesn't necessarily mean cutting back on healthy fats. Here, we've outlined two of the main benefits you can receive when you cut back on oils:

1. Reduced inflammation and
2. Eat a truly "whole foods" diet...with all the benefits

Now let's break down each of these points in more detail, so you can determine for yourself if cutting back on oils – or even eliminating them altogether – is going to help you move forward on *your* unique path to health and vitality.

1. Reduce Chronic Inflammation

Do your joints hurt all the time? Do you find that you're often getting sick? Indigestion, headaches, chronic fatigue, and even depression and irritability have all been linked to chronic inflammation.

(<http://www.medicalnewstoday.com/articles/248423.php>)

If you are experiencing symptoms of chronic inflammation, you'd be wise to look at cutting back on – and possibly even eliminating – processed oils from your diet.

Firstly, and most obviously, hydrogenated oils are *terrible* for inflammation, and must go immediately if you want to experience optimal health. This includes margarines (yes, vegan margarines included), many processed foods, and that oh-so-innocent smooth peanut butter that's been sitting in your pantry for a year and a half and still looks and tastes exactly like it did the day you opened the package. *Creepy, right?*

Secondly, vegetable oils are processed like crazy, and the more weird steps a food has to take to end up in your belly, the more inflammatory it can be. If you want an example of the complexities of turning a simple olive into the olive oil you're pouring on your salads, check out this diagram:

([http://www.wikiwand.com/en/Olive\\_oil\\_extraction](http://www.wikiwand.com/en/Olive_oil_extraction)). Plus, vegetable oils – your canola, grapeseed, and olive oils to name a few – are actually very sensitive and are significantly altered when they are cooked or even exposed to light and air. And you guessed it...when an oil is altered, it causes more inflammation, plain and simple. (<https://authoritynutrition.com/6-reasons-why-vegetable-oils-are-toxic/>)

## 2. Eat a *Real* Whole Foods Diet

Oil is not a whole food, but rather a partial, processed food that has to go through many steps to land on your table. These steps remove many of the nutrients that are found in the food the oil is originally made from. What's left is a refined product that is lacking significant nutrition when compared to the whole food in its natural form.

For example:

- 40 olives = 1 tbsp of olive oil
- 1 whole coconut = 1 tbsp of coconut oil
- 3 avocados = 1 tbsp of avocado oil

To top it off, the processing of the oil robs it significantly of the nutrients found in the whole food.

For example:

- 40 olives provide approximately 60% of your daily iron recommendations whereas 1 tbsp of olive oil gives you 3%.
- 2 coconuts provide approximately 62% of your daily magnesium recommendations whereas 2 tbsp of coconut oil has *no notable trace of magnesium*.
- 3 avocados gives you 80% of your daily potassium recommendations while 1 tbsp of avocado oil has no notable traces of potassium.

If this all makes sense to you, but you're wondering how you'll possibly be able to cook without oil, Ground Leaf has you covered!

Take a peek around the Ground Leaf recipes section, and you'll see that all of the recipes found here are 100% oil-free! Sautéing with a splash of water will keep your veggies from sticking. Dressings made with water, vegetable stock, cashews, or our secret ingredient: [Zucchini Puree](#), will still be flavorful and satisfying and easily save on average 120 calories per serving. Baking or air-frying your favorite fried foods instead of frying in oil will still provide that satisfying crunchy bite but without the guilt or the tummy ache!

Don't take our word for it. Try going oil-free yourself, and see how amazing it feels to eat a truly whole foods diet!

## b. Caloric Density of Oils and Weight Loss

Although reduced inflammation and increased nutrition can be noticeable benefits of skipping on oils and eating a whole foods diet, one of the most surprising benefits you'll receive from reducing or cutting out oil is an effective weight loss strategy.

There's really no way around this one: Oil has 120 calories per tablespoon! Science and experience have both shown us the validity of a calorie when it comes to weight loss, and although all calories are certainly not created equal, the density of calories in oil can absolutely contribute to unwanted weight.

This article from "Forks Over Knives" (<http://www.forksoverknives.com/the-calorie-density-approach-to-nutrition-and-lifelong-weight-management/>) illustrates perfectly how oil is less "sating," and how eating other foods can help satisfy you much more, which will inevitably help you in your weight loss efforts.

Another point to consider is that oil has twice as many calories per gram as refined sugar. Yikes! And while you may not be sold on completely taking oils out of your diet, if you're really trying to lose weight, cutting back on oils can make a big difference, just like The No Meat Athlete explains in this article (<http://www.nomeatathlete.com/oil/>) where his wife lost 18 stubborn pounds after addressing the oils in her diet.

The key is to think of what nutrients you *are* getting for the calories consumed, and with oils, it's just really not that much. Avocado is high in fiber and healthy fats, and nuts like walnuts and almonds are high in nutrients as well as calories. As you can see, eating the whole food is plain and simply a smarter bang for your calorie buck.

### c. The Icky Process of Processing Oils

To be completely honest with you, when we first heard the notion that oil is “a processed food”, a significant amount of irritation ensued.

*On top of all these changes you want me to make to eat a whole foods diet, now you’re going to tell me that OIL is processed. Come ON.*

But once you take a look at the processing of oils, how it affects the quality, and how much the nutrition can be impacted by cooking and storage, you’ll see why you may want to consider oil-free. Not to get too “science-y” on you, but when an oils molecular structure is harmed, it can have serious effects on your health. (<http://www.berkeleywellness.com/healthy-eating/food/article/hydrogenated-oils>) So, let’s take a look at the research around processing oils so you can make an informed decision for yourself.

#### **Hydrogenation**

Many scientists and health professionals consider hydrogenated oils – which contain trans fats – so dangerous that they should be banned from the food chain.

In fact, in some places they already are, and supposedly the FDA plans to restrict the use of trans fats in food nationwide ([https://www.nytimes.com/2017/04/12/well/eat/trans-fat-bans-tied-to-fewer-heart-attacks-and-strokes.html?\\_r=0](https://www.nytimes.com/2017/04/12/well/eat/trans-fat-bans-tied-to-fewer-heart-attacks-and-strokes.html?_r=0)) as an ongoing attempt to lower America’s levels of cardiovascular disease.

Hydrogenated oil is a man-made, edible food-like product, created in a lab to increase shelf life of processed foods, prevent rancidity in spite of food's natural expiration rate, and drive profits by turning a liquid into a spreadable solid to meet the convenience-driven desires of the masses. Hydrogenation adds hydrogen atoms to an oil's available double bonds, converting them from "cis" double bonds to "trans" double bonds...hence the term "trans fat." As the level of hydrogenation increases, the level of saturated fat increases and the level of unsaturated fat decreases, which adds the technical advantage of making foods like margarine solid or partially solid at room temperature.

As you can imagine, messing with an oil's molecular structure will naturally alter the molecular structure of anything *consuming* said oil. When trans fats hit your body, they make a big ol' mess of your cells; they raise your bad cholesterol levels, and decrease the good ones, placing you at a higher risk of heart disease, stroke, and type 2 diabetes, and that's just a start. They are hard to digest, can send inflammation skyrocketing, have been linked to some types of cancer and basically should be avoided at all costs.

## **Rancidity**

A lot of people don't realize how important it is to buy, store, and even prepare oils very carefully. Oils, especially the unsaturated ones like olive oil, grapeseed oil, avocado oil, canola oil, and sesame oil, are very sensitive to light, temperature, and even oxygen. When purchasing oils, it's crucial to remember that buying a "healthy" oil is one thing, but whether it *stays healthy* after being cooked is another. High heat can oxidize oils, rendering them not just *less healthy*, but downright *harmful* to your health. Likewise, if you keep oil on the counter and it's exposed to air (like in an olive oil bottle with an open spout), it will go rancid much faster than if it's stored in the cupboard in an airtight, cool and dry place. You'll notice that a lot of oil containers are opaque; this is a measure taken by distribution companies to protect sensitive oils from light oxidation, thereby extending their shelf life.

It's relatively easy to tell if your oil has gone rancid – it will smell repulsive. The problem, however, is that some oils like canola oil and safflower oil need to go through heavy processing before they land on your table,

or in processed food. Processing canola oil involves toxins and nasty solvents, which many experts don't feel is suitable for human consumption. Check out this video if you want to see how canola oil is made (<https://www.youtube.com/watch?v=omjWmLGOEAs>).

#### **d. Fats From Whole Foods**

The best way to get your fats – the easiest way for your body to digest, assimilate, and eliminate them – is by eating the whole food. Not only do you increase the bioavailability of the oils, but you get the added benefit of the *actual* food, which includes fibers, nutrients, and even increased digestive enzymes that come from chewing food instead of just swallowing oil. You lighten the load on your liver and pancreas, decrease stress on your stomach, and improve overall digestion. Olives make an amazing Tapenade to dip veggies in. Guacamole with home-made Quinoa Tortillas beats a processed avocado oil any day. Soak some pumpkin or sunflower seeds overnight, and get a boost in antioxidants, vitamin E, manganese, copper, and folate.

#### **Putting it all together**

All of this information can be overwhelming, and it's important to start slow when making any lifestyle or dietary changes. Dropping oils altogether and immediately isn't a very realistic goal, and we recommend being smart and taking on changes that you feel you can follow through on.

Just like with animal products, education is power, and once you see how good you can feel from eating a truly whole foods, plant-based diet, you'll be able to make the decision for yourself whether or not you want to cut oils completely from your diet.

As with everything in this guide, we recommend that you experiment, and see what feels best for your body. We all have a different pathway to vitality, and it's education, trial, and error that will help you find your unique approach to radiant health from the inside out.

## Section 7 – Sugar

When you think of sugar, what comes to mind?

Maybe you've seen Jamie Oliver dumping a wheelbarrow full of white cubes on the TED stage and accusing governments (who promote children eating sugar at school) of child abuse. (1)

Perhaps you've heard of National Sugar Awareness Week, a UK initiative focused on the key actions the government needs to take to initiate a sugar reduction program. (2)

As an even more dramatic case, maybe you've seen that the World Cancer Research Foundation has created a policy brief called "Curbing Global Sugar Consumption" in an attempt to assist governments in reducing the amount of sugar consumed at an international population level. According to their global research, not only does sugar contribute hugely to the world's obesity epidemic, but it's also fueling the growth rates of non-communicable disease...including eleven different kinds of cancer. (3)

Or maybe you just think about how much you love candy bars and ice cream.

Whatever your associations are with sugar, whether it's a concern for you and your family, or merely a sweet-toothed habit that you've casually thought about kicking, Ground Leaf wants to help you see that you can still enjoy sweets and treats without being worried about heart disease, diabetes, or obesity. As with all foods - especially whole foods - it's all about quality. Not all sugars are the same, and by switching to whole-food sugars, not only are you preventing the epidemic of disease, but you're doing wonders for your health and energy levels.

## a. Difference in Sugars – Refined compared to natural

### **White Sugar**

Table sugar, also known as sucrose, is a bleached, refined, and crystallized industrial product usually derived from either cane or beet sugars. This is the kind of sugar being attacked by the World Health Organization and Parent-Teacher-Associations all over America. It's such a common food additive that some experts estimate the average American consumes 20 teaspoons every single day, amounting to an additional 66 pounds of sugar consumed over a year. (4) (5)

### **Fructose**

Fruits contain fructose, and when found in this form with the accompanying fiber, vitamins, and vast nutrition is a tasty, whole, and healthy food. However, when fructose is isolated and processed and added to sweeten foods (like high-fructose corn syrup) the benefits go out the window. Part of the concern with fructose is that unlike glucose, fructose is metabolized by the liver, has a different metabolic pathway, and does not provide energy for your cells or your brain. (6) (7)

### **Glucose**

Glucose is the energy currency of your cells, and is your body's preferred energy source. Also known as blood sugar, glucose provides fuel for activities and brain functioning. The result of broken-down starches and complex carbohydrates, glucose is essential for healthy thinking, self-discipline, and other psychological processes that require mental effort. (8)

## **b. Stop Drinking Soda!**

One of the hottest topics when it comes to the rising levels of childhood obesity is soda. In fact, this entire article could easily be about the dangers of soda, a multi-billion dollar industry fueled by celebrity endorsements, massive advertising budgets, and disease-enhancing additives. The colors in cola are linked to cancer, drinking pop actually dehydrates you and breaks down the enamel on your teeth, and this “wonder-drink” also increases heart disease and obesity. If that’s not enough of a reason to pass on the bubbles, just think: some sodas actually contain flame retardants. (9)

Add to that the fact that diet soda contains aspartame, which claims have linked to birth defects, multiple types of cancer, weight gain, memory loss, and depression and it’s clear that diet soda is NOT a viable alternative. If there’s one processed food/drink it would benefit you to cut, even in small quantities, it’s soda. (10)

### c. Alternative Sugars

Alright. Now that you've gone through all of this data around processed sugar and are hopefully feeling more versed in the dangers, let's get to the good stuff: whole, unprocessed alternatives that don't come with all the nasties.

Molasses, brown rice syrup, agave, maple syrup, honey, coconut sugar and stevia have all gotten a lot of attention (and sales) as a result of the campaign against sugar. And while these very well may be a healthier option than your straight-up table sugar, nothing compares to a whole-food. Even though "natural" sweeteners are more popular and seemingly don't carry the baggage of white sugar, they are still processed, and add significant calories to your diet with very little nutritional value. ([11](#))

The best solution? You guessed it. Whole foods. Blend dates into a paste or, if necessary, use date sugar for sweetening recipes. Both are closest to a whole food, unprocessed product, which means your body can break them down slowly, and in a more natural way that doesn't contribute to addiction, overconsumption, and/or obesity.

Of course there's always nature's dessert as well: whole, organic fruits which are packed with nutrition and sweet goodness. Fruits are so incredibly good for you, Ground Leaf recommends that you be cautious of *any* eating program which limits fruits or labels them as "bad." A whole food coming directly from the earth, which is unprocessed and bursting with energy, is not "bad" by any definition.

You've heard it once, and you'll hear it again: Eat whole, unprocessed foods and watch your body transform into the beautiful, healthy, and energized organism that will give you the happiest, most fulfilling life.

#### d. What Does Sugar Do to Your Body?

Do you feel like you just went to sugar school? We hope so, because it's so important to understand all those details to make truly informed decisions on a day to day, moment to moment basis. The more you really *get* why sugar is so bad for you, the easier it will be to pass on sour patch kids at the movies.

Beyond understanding the science of sugar, it's also helpful to know the effects sugar (all types) has on your body and your mind.

##### **Mind**

Glucose is the brain's main source of fuel. The brain is so rich in nerve cells, it demands more energy than any other organ in the human body, and uses half of the glucose available to the body at any given time (<http://neuro.hms.harvard.edu/harvard-mahoney-neuroscience-institute/brain-newsletter/and-brain-series/sugar-and-brain>). But when glucose is *too* high, it's actually really bad for your brain, and can lead to early ageing of brain cells, dementia, brain fog, addictive wiring of our neurons, and memory and cognitive deficiencies.

This wouldn't be such a problem if we weren't wired to easily become addicted to sugar, and have a really hard time cutting back. Sugar hijacks the reward centers of our brain and makes us want more and more and more. By giving us strong hits of dopamine – the “feel good” chemical in our brains – large amounts of sugar make our dopamine receptors down regulate, which means that they become less and less receptive to sugar, requiring more and more to get “a hit.” Then, our body's ability to naturally produce dopamine diminishes. What does that mean? Sugar may make us feel good in the moment, but over time and in excess can actually lead to depression, mood swings, and behavioral changes.

## Body

Some experts go so far as to say that sugar is the most harmful food you can put into your body. Not only does it mess with your metabolism, it's bad for your teeth, your waistline, and is basically void of anything your body can actually use (<https://authoritynutrition.com/10-disturbing-reasons-why-sugar-is-bad/>).

Because added sugar is high in fructose as well as glucose, it places additional strain on your liver. Not only can too much sugar lead to non-alcoholic fatty liver disease, but it can also cause insulin resistance, which is a precursor to diabetes and metabolic syndrome. And considering obesity has recently been linked to mortality from most cancers, it's crucial to understand – before reaching for that vegan candy bar – that the issues caused by elevated blood sugar levels can contribute to the proliferation of cancerous tumors (<https://www.ncbi.nlm.nih.gov/pubmed/14713323>).

And then there's obesity. It's not news that too much sugar can contribute to weight gain and obesity, but what a lot of people don't realize is just how addictive sugar can be, and how that addiction can fuel weight issues and chronic health problems for life. Because sugar creates such sharp dopamine spikes, a lot of people come to rely on its instant feel-good sensations to get them out of ruts. And considering that depression and antidepressant prescriptions are on the rise in America (<http://healthland.time.com/2011/10/20/what-does-a-400-increase-in-antidepressant-prescribing-really-mean/>), this can mean that more and more people are turning to a cheap way to up their mood: sugar. This can be big trouble for future healthcare, as well as the individual wellbeing of Americans.

This is exactly why, at Ground Leaf, we only use whole food sweeteners in our recipes. A whole food, plant-based way of eating takes you out of addictive cycles, and helps your body restore its natural chemical balances.

It may be hard; in fact, some people say it's harder to quit than heroin and cigarettes, but getting away from sugar can be one of the best things you can do for your health.

## Section 8 – Salt

1. Not All Salts Are Created Equal
2. Three Main Benefits of *Real* Salt

You'll notice that a lot of Ground Leaf recipes call for salt, and sometimes a fairly generous amount. There are so many mixed opinions in the nutrition field about salt, so let's clear up some of the confusion.

### a. Not All Salts are Created Equal

First, not all salts are created equal (1), as you've probably guessed if you've stood in the salt section of your health food grocer, scratching your head at the vast selection, colors, and appearances. Some are pink. Some are grey. Some are in a powder, and others come in big chunks, like rock salt crystals, as well as in much larger chunks, like...well, lamps.

There are many holistic uses for salts. The large pieces that glow with a lightbulb inside are often used in healing spaces to "ground and clear energy." It's said that the negative salt ions released by heating can boost blood flow, improve sleep, increase levels of serotonin in the brain, and calm allergy or asthma symptoms (2). There are also many varieties used to bathe, soak, and cleanse. This section, however, is about the kind you eat...you know, the kind that can take a dish from "meh" all the way to "woah" with a couple sprinkles.

The biggest differences between table salt and the more natural (and expensive) versions are the way they're processed, and the effect they have on your body. (3)

### Table Salt

Table salt (which is mostly sodium chloride) is heavily processed to remove minerals, and generally contains additives which prevent clumping and increase shelf life. Because the processing strips the minerals, it's common practice to artificially add iodine back into table salt, which was part of an initiative in the 1920's to counter a widespread problem of iodine deficiency. Table salt (which is very high in sodium) is what experts are generally referring to when they suggest cutting back on salt, as too much of that tasty white stuff can make you bloated, sluggish, foggy, and even lead to serious cardiovascular problems down the line.

### **Himalayan Pink Salt**

Himalayan pink salt is hand-mined in the Himalayan mountains, and is naturally rich in essential minerals. In terms of health benefits, the need for a balance of electrolytes cannot be overstated. Maintaining the right balance of electrolytes and minerals helps your body's blood chemistry, muscle action and pretty much every other physiological process. (4) Himalayan pink salt has 80+ minerals and elements which can regulate water content, keep you hydrated, maintain proper organ function, and much more. This is the preferred salt of Ground Leaf and is used in all of the recipes on the site.

### **Celtic Sea Salt**

Celtic sea salt, as its name suggests, is mined from the sea with extra care to preserve its life-giving nutrients. Sea salt, just like Himalayan pink salt, can help to alkalize your body, balance blood sugars, improve brain function, and regulate sleep cycles (5).

Now that you know what kind of salt is called for in Ground Leaf recipes, let's dive into the three main benefits of real salt - a life (and food) enhancing kitchen essential.

## **b. Three Main Benefits of *Real* Salt**

### **1. A flavor enhancer**

Ground Leaf recipes are all whole food, plant-based, and fresh; herbs and spices are a big part of what makes the dishes so robust and interesting. Salt amplifies the flavor of the herbs and spices, and really brings out the subtleties of grains, vegetables, and legumes so you can get a taste of their natural essence. You know you've used too much salt when the salt outweighs the natural flavor of the food...but don't worry, we've taken care of that for you with specific measurements and instructions. And if you're concerned about too much salt in your cooking, start with a little amount and add as necessary; you can always add more but you can't take it out once it's in there.

### **2. An essential mineral**

Now that you understand the importance of minerals necessary function within your body, by replacing your processed table salt with a high quality natural version, you're improving your ability to receive invaluable nutrition. This really can't be overstated.

### **3. A preservative**

Before packaging and refrigeration came along, salt was one of the very first methods of preserving food. Because bacteria and fungi (micro-organisms that can spoil food) need humidity to multiply, salt acts as a preservative by making the environment too dry to support harmful molds or bacteria. Basically, salt works by drying and absorbing the water from food. (6) Vegetables like cabbage, pickles, and runner beans are all preserved in this way. Using high quality salt will naturally preserve your food, prevent spoiling, and of course enhance the flavor.

When you hear all the experts telling you to cut back on salt, keep in mind that they are absolutely right! Too much sodium can be extremely dangerous, and is so readily available in processed, packaged foods that you've got to keep your eye out for it. However, switching to a whole food, plant-based diet will help immediately cut back your intake of the "bad" salts, thereby minimizing your risk of a host of dangerous diseases. (7)

Natural salt is a healthful addition to your diet in moderate doses, so don't be afraid when you see added salt in the delicious Ground Leaf recipes!

### c. The Great Sodium Debate

Any discussion on salt would not be complete without an exploration of sodium, how much we actually need, and how our needs contrast so sharply with the average American intake.

Sodium is an essential mineral, required for lots of different functions in our bodies including balancing our fluid levels, sending nerve impulses, and regulating muscle activity ([https://sodiumbreakup.heart.org/sodium\\_and\\_your\\_health?utm\\_source=SRI&utm\\_medium=HeartOrg&utm\\_term=Website&utm\\_content=SodiumAndSalt&utm\\_campaign=SodiumBreakup](https://sodiumbreakup.heart.org/sodium_and_your_health?utm_source=SRI&utm_medium=HeartOrg&utm_term=Website&utm_content=SodiumAndSalt&utm_campaign=SodiumBreakup)). The problem is, as Time Magazine suggests, 90% of Americans are getting too much sodium in their diets (<http://time.com/3944545/sodium-heart/>) The recommended daily intake of sodium is around 2300 mg, while findings show that the average American consumes nearly 3600 mg (<http://time.com/3944545/sodium-heart/>).

Sodium really isn't very hard to come by. In fact, the vast majority of the sodium Americans eat is found in processed foods, which is why cutting back on said foods is one of the most common recommendations by doctors to patients with high blood pressure and hypertension (<http://www.npr.org/sections/thesalt/2016/01/07/462198458/we-eat-too-much-sodium-because-companies-keep-dumping-it-in-our-food>). A paper out of the New England Journal of Medicine showed that 1 in 10 deaths from cardiovascular disease around the world can be attributed to excess sodium intake (<http://www.nejm.org/doi/pdf/10.1056/NEJMoa1304127>). So in addition to being bloated and puffy from eating too much salt, you also increase your chances of death and disease. That's not very awesome, is it?

Food processors and manufacturers use so much sodium for a few main reasons: It increases the palatability of their food, it helps to contribute to food cravings for their product, and it also extends shelf life. The worst offenders to look out for are bread, deli meats, pizza, pasta, soups, poultry, meat dishes, and savory snacks like chips and popcorn (<http://www.npr.org/sections/thesalt/2016/01/07/462198458/we-eat-too-much-sodium-because-companies-keep-dumping-it-in-our-food>).

Take a look at that list, and you'll notice something compelling... something we've been saying all along: if you eat a whole foods, plant-based diet, you will virtually eliminate the chances of consuming too much sodium.

The difference between eating whole foods and processed foods is massive. When you're eating whole foods, you completely control how much and which kind of salt you use. When you're eating processed foods, you don't have much say of anything.

## **Section 9 – Guidelines for Healthy Eating**

That was a lot of information on what not to eat, so now let's take a look at the different components of a healthy way with food, which extends far beyond just *what* you're eating.

## **a. Complex Carbs Are GOOD – Refined Carbs Are BAD**

### **The Difference Between Complex and Simple Carbs**

To properly understand this subject, it's essential to explore the difference between complex and simple carbs, because putting them both in the same category is just as flawed as putting all fats into the "fat" category. Good fats - such as Omega 3, 6, and 9's - are essential to your health and cellular function, while trans fats contribute to heart disease, chronic inflammation, and obesity (2). Let's take a look at how the subtleties of starches can make a world of difference to your health and energy levels.

### **Complex Carbohydrates**

Potatoes contain vitamins, minerals, and fiber, the key factors to consider when determining if a carb is "good" or "bad" (3). Complex carbohydrates, often referred to as dietary starch, take longer to be broken down, and supply lasting energy and a feeling of satisfaction. In addition to their highly absorbable minerals, potatoes are a rich source of B vitamins which are important for cell renewal, they contain resistant starch which feeds friendly gut bacteria, and...they're technically a complete protein (4)! Bonus!

### **Simple Carbohydrates**

Simple carbohydrates tend to be more refined, break down much faster, provide energy spikes, and can leave you feeling depleted and hungry a very short time after eating. Corn syrup, refined sugar, processed cereals, and white bread are all examples of simple carbohydrates. As you can see, these examples are clearly all devoid of nutrients, including vitamins, minerals, and fiber, thereby rendering them "bad" for your health and your energy levels. Please note that fruits are also simple

carbohydrates, but unlike refined foods, they have an abundance of fiber and nutrients, and are thus a wise food decision.

## **b. Conscious eating**

There is a lot of talk about *what* to eat (quality), and even *how much* to eat (quantity), but more and more experts are starting to understand how important it is to practice *consciousness* around eating, which will help bring both quality and quantity into balance.

We've covered a lot of information around what to eat, and we're actually going to be talking about that even more as we wrap up this book, but before we go into it too much, we thought that we should give you three simple guidelines that will help you eat more in line with what's right for you:

Three simple guidelines to keep in mind:

1. eat when you're hungry
2. stop when you're satisfied
3. eat foods that make you feel good

If you keep remember these simple points, you will have robust health and a balanced body weight for the rest of your life.

### **1. Eat when you're hungry**

It sounds really obvious, but we are so programmed to go against our natural cycles of eating that we need to re-train our bodies to be in tune with our minds, and actually eat when we receive the signal of true hunger. The guideline "eat when you're hungry" means *always when you're hungry, and only when you're hungry*.

If you're familiar with diet mentality, you'll know that a lot of weight loss experts will tell you to dodge your hunger by drinking water, distracting yourself, or (gasp) even taking appetite suppressants like hoodia tea. This is not healthy advice! Hunger signals are communication messages from your body that you need fuel. They are not to be pushed down, ignored, or suppressed, but rather they should be respected and honored. When you reward your body's hunger signals with good, whole, healthy foods, your body will thrive and be in amazing health. When you ignore your hunger signals, you create a battle within you and health issues and imbalance will ensue. Food is about fuel, not about fighting; when your body tells you it requires sustenance, respond intelligently and *eat!*

The same way we'll keep on telling you to *always* eat when you're hungry, we also encourage you to *only* eat when you're hungry. We are being inundated with advertising and media all day long encouraging us to eat-eat-EAT! If you are out of touch with your body's intelligence and sensations, then every yummy food truck on your way to work will be a temptation to stop and indulge. By making a practice to only eat when you're hungry, you're going to create harmony between your hunger signals and your digestion, and you'll get to enjoy a healthy, lean body weight.

As Chef AJ likes to say, "If you're not hungry enough to eat kale, you're not hungry!"

It may take some time for your body to re-align with the proper hunger signals, but if you trust this process, then you will get to watch as your health and your body become balanced and well. It's a truly rewarding process...with the reward being the health and vitality that you've always dreamed of!

## **2. Stop when you're satisfied**

Food these days is full of additives and chemicals that induce feelings of addiction – it is after all the mission of a company to sell as much of their product as possible. When you're eating processed food, it can be very

challenging to stay connected to your hunger sensations, and actually stop when you're satisfied. Hence the popular advertising campaign "Once you pop you can't stop."

*This is not a good thing!*

Cultivating the discipline to stop eating when you're satisfied will not only align you with your body's innate intelligence, but it will also yield health and balance in so many ways. Overeating places a huge burden on your body's systems, is really uncomfortable, and leads to excess weight and even obesity, which (as we've discussed) can put you at risk for heart disease, stroke, and even some cancers.

When you're eating the right foods, and stopping when you're satisfied, you're ahead of the curve. The discipline that you build will also show through in so many other areas of your life, like your finances, your exercise, your love and family life, and even the organization of your home and work spaces.

### **3. Eat foods that make you feel good**

If you're paying close attention to your body, you'll be able to tell which foods sit well with you and which do not. Part of the problem lies in the fact that we are so often distracted while we're eating – whether we're driving, watching television, or talking and texting on our phones. When we stop to really listen to how our bodies respond to the food we're eating, we tap into a whole new level of intelligence and data that's always been there for us, but rarely gets accessed.

Food that makes you feel good has a theme to it, you'll notice. Whole foods, non-addictive foods, plant-based foods...they're all food which is actually *good for you*. And your body will be able to tell that, because that's its job.

There are a few key ways to assess whether a food feels good or bad:

- **It feels good in your stomach.** If you eat a food that doesn't agree with you, you'll know because of how your body responds. You'll often get an uncomfortable gurgling in your belly, possibly have gas, and sometimes even get cramps and other forms of intestinal unrest. When you eat a food that your body loves, you will feel energized and light, and your digestion will be smooth and happy. Pay attention to your body's cues – that's one of the smartest ways to determine if you're eating a food that's bringing you health or harm.
- **It makes you mentally alert.** Food has an incredible power to feed your mind, and it also has the power to make you drowsy and dull. If you find that you get tired, sluggish, or even irritable after eating, chances are your brain is sending you signals to stop eating that food; it may be that it's just not the right time to eat it, or maybe your body doesn't want it at all. Paying attention to the mental effects of food is just as smart as the physical effects of food, and there's just one more important factor to consider.
- **It resonates with your values.** Yes, that's right...we're talking here about the spiritual component of eating. Did you know that a plant-based diet can actually be an expression of your value system? It reflects how you feel about the world, the respect you have for the environment, the love you have for animals, and the reverence you have for your own health and energy levels. They say that when your thoughts, actions, and values are aligned, this paves the way for true happiness, and we couldn't agree more. When you're eating in a way that's ethical, morally aligned, and responsible, you can feel better in everything you do knowing that you're a considerate and respectful person. So many people claim to be animal lovers, yet they dig into a steak for dinner, or load up on the bacon for breakfast. There is an inconsistency here that is far too convenient to ignore. How can you differentiate between your family's dog or cat and a cow or a pig? Why is it acceptable to eat a cow – an animal revered in other parts of the world – yet you'd never think to eat a horse? The difference boils down to your value systems, and when you take meat and animal products out of the equation, you are left with a clean conscience in so many ways. In fact, we'd go so far as to say that eating in line with ethics is one of the most rewarding parts of a whole foods, plant-based diet.

### c. Is Vegan the same thing as Gluten-Free?

In a word...no. Vegan is not the same thing as gluten free.

Vegan food is free of animal products. Gluten free food is free of gluten, a protein commonly found in breads and other (mostly) wheat-flour based foods that has received a lot of bad press in the past few years. Both *vegan* and *gluten free* are popular health catchphrases, but they are definitely not the same thing.

A lot of people have jumped on the gluten free bandwagon, and have cut out all sources of gluten from their diets, but unless you are actually sensitive or have Celiac Disease, you don't really need to worry about it. There's a huge industry now full of "gluten free" products geared at people willing to pay extra for food they think is healthier. Don't fall for it.

A whole foods, plant-based diet is a perfect solution to a gluten sensitivity or allergy because it's focused on whole grains, and deeply satisfying, especially for the GL insiders who get access to unlimited delicious meal ideas and step-by-step recipes that are so good they'll blow your mind.

<https://nutritionfacts.org/video/gluten-free-diets-separating-the-wheat-from-the-chat/>

#### **d. Is Soy Bad for You?**

Processed, packaged foods made of long lists of barely-pronounceable, disease-promoting chemicals and compounds line grocery store shelves all across the world, yet somehow soy - a plant from the earth - has been labelled as evil in certain circles.

Let's explore the truth and the hype around soy, and you can decide for yourself if you think it's really as dangerous as mainstream nutrition would have you think.

#### **Why are people scared of soy?**

There are a lot of valid reasons for people to potentially be concerned about soy, but many of them are unfounded. Let's take a look at some of the main rumors:

##### **1. Soy causes (or contributes to) breast cancer**

In a study conducted by the Journal of the National Cancer Institute, 140 women who had been recently diagnosed with invasive breast cancer were given either a soy supplement or a placebo and monitored carefully. The soy supplement was equal to around four cups of soy milk, or four servings of tofu, and the hypothesis was that soy foods, for a limited period of time, could influence the behavior around already-established breast cancer.

Although the test subjects who were taking the high levels of soy did show altered hormones, they did not show any difference in the actual progression of their tumors. Researchers concluded that for women with breast cancer, or who were recovering from breast cancer, soy in limited amounts appeared to be perfectly safe, and admitted that it also had protective effects to consider. (1)

Truth is, although soy does have phytoestrogens (plant-based forms of estrogen) so do many other plants like whole grains, dried beans, peas, fruits and broccoli. The case for the link between phytoestrogens and breast cancer can be misleading, and experts across the board agree that moderation is key, and variety in your diet is beneficial regardless of your health goals. (2)

## 2. All Soy is GMO

Soy is the second largest genetically-modified crop in the U.S.A. following corn, and preceding cotton. This once staple food in Asian countries reputed to inhibit ageing and enhance longevity and beautiful skin has now become a popular agricultural win, food additive and health concern. (3)

What you need to remember is that even though the soy industry is booming, and soy as an additive can definitely have negative effects, there are still plenty of GMO free options which are not just better, but a vital choice. By finding a high quality, organic tofu, tempeh, or even soy milk, you are skipping a lot of the dangers that come with eating anything GMO, and still enjoying the benefits of this plant-based power food.

## 3. Soy causes “man boobs”

Yep, that’s right. If you haven’t heard it yet, now you have: many men are afraid to eat soy because they’ve been told it can increase their bra size. And while high doses of phytoestrogens have been shown to affect hormones in rats, it’s important to recognize that rodents actually metabolize soy differently than humans, effectively making the studies inapplicable.

The research has ultimately shown that the men who’ve reportedly experienced changes in sex hormones were all consuming extremely high doses of soy, and the effects were reversed when their soy intake was reduced or discontinued. (4)

Does soy seem so dangerous anymore? Like all foods, variety is necessary. Many people, when first transitioning to a plant-based diet, go nuts on soy as a way of reaching higher protein levels. Plus, so many “fake meats” are loaded with soy protein. But let’s be honest: you don’t need to have soy milk for breakfast, tempeh for lunch, and tofu for dinner. And if you’re eating high quality whole foods, the fake meats aren’t a concern for you anyway.

Search out organic soy companies with high standards. Eat soy in its natural form as a lightly salted edamame bean or even in edamame burgers. Eat soy with lots of fresh vegetables, and other whole foods, and watch that you don’t go overboard. That way you can concern yourself with all the other processed foods that are much worse for your health, and not be too worried about eating the occasional tempeh scramble. (5)

## Section 10 - The Ground Leaf Food Guide

The previous sections of this manual have been focused on what not to eat, why you'd want to avoid those foods, and common myths and misconceptions around fad diets.

This next section is all about the solution: A whole foods, plant based diet. The amazing benefits of eating plant-based whole foods are known globally, and are celebrated throughout every health industry, no matter which "denomination." It's rare to find a credible nutrition or health expert who does not promote consumption of plant-based foods as part of a healthy lifestyle.

Popular studies, books, and mainstream documentaries all agree that eating more plants, and even eating exclusively plant-based, can help to prevent chronic illness, improve energy, slow aging, and all around increase health and quality of life. Add to that, the minimized harm on the environment and the obvious plus of not causing harm to animals. It's clear that eating a plant based diet is a viable, intelligent option.

As part of Ground Leaf's mission to bring you simple, delicious, plant based recipes, here is a brief explanation of all the ingredients you'll find on the GL website.

### **a. Vegetables (4+ servings / day)**

So often, people get stuck in a rut when it comes to their veggies. It's such a shame because vegetables can be delicious and interesting when done properly.

Variety is essential. It is so important to mix it up and work a variety of vegetables - raw, steamed, roasted, low-heat stir-fried, and definitely pressure-cooked - into your daily meals.

Vegetables are packed with nutrients to feed every system of your body, antioxidants to help fight aging and boost cellular regeneration, and fiber to help you maintain a healthy gut...that's just the start of it. While you probably already know that eating your vegetables is one of the best things you can do for your health via food, what you may be struggling with is how to incorporate a wide variety of them into your meals on a regular basis.

That's exactly where Ground Leaf comes in. We have included a wide range of healthy, fresh, often organic vegetables into almost all of our recipes so that you don't have to worry about it.

## **b. Beans and Legumes (3+ servings / day)**

To say that beans are a staple of a whole food plant-based diet barely gives them the credit they deserve. Tacos, burritos, bowls, curry dishes, soups, and dips like hummus are only a few of the many options beans and legumes bring to your table.

Nutritionally, beans are a very inexpensive protein option, and unlike meat, they are also a powerhouse of both micro and macro nutrients as well as antioxidants and minerals such as copper, folate, iron, zinc, and manganese.

Easy to prepare (especially with the pressure cooker), beans can offer texture and flavor in addition to their vast nutrition. A serving of beans will help you feel full more quickly, because the rich fiber content fills your stomach and causes a slower rise in blood sugar.

Don't worry if you're not familiar with cooking beans, Ground Leaf will help you with clear instructions for each protein-packed, delicious recipe.

### **c. Grains (5+ servings / day)**

Grains are a mainstay of the whole food plant-based diet and should constitute the largest part of your plate.

The nutritional benefits of grains include high fiber, a wide variety of vitamins and minerals, and yes...even protein. One of the best things about grains is that they are so satisfying and in many cases can help you to get a full amino acid profile in your meal... which basically means your protein needs are being met through eating plant-based.

There are of course your popular grains like wheat, rice, and even quinoa (which is technically a seed, but is usually eaten as a grain). Then there are your more alternative grains, such as farro, millet, rye, buckwheat, amaranth, kamut, spelt, and teff.

#### **d. Fruits (2+ servings / day)**

Fruits are the food group that most people have no problem eating more of.

Delicious, wholesome, ideally sourced locally in-season, and loaded with antioxidants, fresh fruits are an easy sell to someone transitioning to eating more plant-based foods.

Not only are they yummy on their own, fruits are versatile, and can create a base for things like ice cream (with frozen bananas), be used on salads, and in drinks and smoothies. Most fruits are naturally low in fat, sodium, and calories, and they are also the source of many under consumed essential nutrients like potassium, dietary fiber, vitamin C, and folate (folic acid).

You can use fruits to sweeten and accent a lot of recipes because they're so tasty and they have incredible health benefits:

- Cherries can calm your nervous system.
- Blueberries support your cardiovascular system.
- Bananas give you energy.
- Pineapples can help boost digestion and lower inflammation.

### **e. Nuts/Seeds (1 – 2 servings / day)**

Nuts are a luxury food that also happen to be loaded with nutrition and Ground Leaf has taken full advantage of this with some of the richest and delicious recipes you'll ever taste.

If you fear that you'll miss creamy sauces and dressings or a smooth blended soup by transitioning to a plant-based diet, then fear no more. Nuts and seeds step in where unhealthy dairy steps out.

- Almonds have as much calcium as milk and also contain vitamin E, selenium, and magnesium.
- Cashews are known to help combat depression.
- Ground flax seeds provide essential fatty acids and can actually replace eggs in many recipes.

Although nuts and seeds are proportionally the least consumed of the food groups, they are worked into Ground Leaf recipes in a way that will have you appreciating their texture and flavor, as well as their intense nutrition.

## f. What to drink?

With so much emphasis put on what to eat and what not to eat, we must not ignore an equally important question: what should we be drinking for optimal health?

Considering that liquids are just as important as food – food does, after all, become liquid in the digestive system – it's crucial to put our drinks under as much scrutiny as our eats. There is as much marketing around soft drinks, soda, and energy drinks as there is around fast food and packaged meals, so our discernment in this arena can have just as much of an impact on our health.

### **Water**

This is a really obvious one, but our water consumption is often neglected and replaced with high sugar options. Most experts recommend drinking eight cups of water per day, which amounts to about a half a gallon (<https://authoritynutrition.com/how-much-water-should-you-drink-per-day/>). This seems to be the most popular recommendation across the board, yet most Americans are thought to be chronically dehydrated, partly because of the popular trend of drinking soda water, which can actually further dehydrate you instead of providing your body with much-needed hydration (<http://www.medicaldaily.com/75-americans-may-suffer-chronic-dehydration-according-doctors-247393>).

When making your drinking water choices, it's always best to choose filtered water. This helps to eliminate chlorine – which can be harmful on the digestive system and lead to leaching of minerals – and it also helps to remove impurities and even heavy metals from city-grade water. To avoid the pain (and the plastic) of having big jugs of water delivered to your house, you can opt for a much easier route and get a filter installed on your kitchen tap. If you don't want to pay up front for this product, which generally keeps a filter underneath your sink that can be changed 1-2 times per year depending

on usage, there are an abundance of water companies which lend the equipment for a small monthly fee.

However you decide to go about your water filtration, make sure you have a plan, and no matter what, stay hydrated! It's an essential piece of the health puzzle that will help all of your other efforts come together.

## **Juices**

There is a huge difference between store-bought juices, and hand-pressed, homemade juice. In fact, if you read the label on a lot of "healthy" juices, they can have upwards of 60 grams of sugar per serving!! You would need to eat a whole lot of fruit to consume all that sugar, and the fruit would help to balance the sugar intake because it also comes with fiber. Plus, if you do check the label – which we *always* recommend – you'll notice that many store-bought brands only actually contain 1%, 5% or 10% juice! Where's the rest of the juice in your juice?

What we're saying here is to be careful with juices. They can seem healthy, but the sugar content can add up so quickly.

When in doubt, drink water.

## Conclusion

It's been such a pleasure sharing this journey with you. We hope you've enjoyed yourself as much as we've enjoyed guiding you through all of these facts and suggestions.

Now that you're equipped with a full body of knowledge on the subject, it's up to you to make the right decision. You can keep turning a blind eye to all of this info, or you can step fully into the awareness that a plant-based diet is better for pretty much everything, including (but not limited to) your health, wellbeing, and all the functions of your body.

The choice, really, is yours: Ground leaf, or ground beef?

We hope you make the right call. Please keep in mind we are here to support you with the most unbelievable recipes, healthy suggestions, and up to date info to help get you started – and keep you going – on your plant-based journey.

Please visit us online: <http://groundleaf.co/>

Check out our Instagram: <https://www.instagram.com/groundleaf/>

And follow us on Facebook: <https://www.facebook.com/GroundLeaf/>

See you on the internet!

Sincerely,

The GroundLeaf.co team of plant-based living enthusiasts

Suggested reading / watching:

Sources:

Books:

China Study

Starch Solution

How Not to Die

Low Carb Fraud

Whole: Rethinking the Science of Nutrition

Protein-aholic

Documentaries:

Food Inc.

Forks Over Knives

Plant Pure Nation

Cowspiracy

Earthlings

Hungry For Change

Fed Up

Fat, Sick, & Nearly Dead

Vegucated

GMO OMG

References