

# *Healthy* **EATING RULES**

*Find Good Health At The End of Your Fork*



*by* **CHRISTIANNNA PIERCE, MA, RD**

**To all the brave, forward-thinking individuals  
who are following  
or who are about to follow  
a plant-based diet:  
*this book's for you!***

***Disclaimer:*** This book is not intended as a substitute for the medical advice of health care professionals. The reader should regularly consult a health care professional in all matters relating to his or her health and particularly with respect to any symptoms that may require diagnosis or medical attention.

**CHRISTIANNA PIERCE, MA, RD**

Copyright © 2011 by Christianna Pierce. All rights reserved.

*Design by Upcycled Love* ∞

# Table of Contents

---

<b>Introduction</b>	<b>4</b>		
<b>Chapter 1: Myth-Busting and Cool Facts</b>			
About Plant-Powered Eating	<b>11</b>		
<b>Chapter 2: Healthy Food Rules for Optimal Health</b>	<b>23</b>		
1 Follow the Healthy Food Pyramid	24	19 Don't count calories	66
2 Eat whole food	26	20 Know your BMI	68
3 Avoid highly processed food	28	21 Drink non-dairy milk	69
4 Don't use oil or fat	30	22 Eat your breakfast	71
5 Eat nuts and seeds in moderation	32	23 Choose organic	73
6 Balance your Omega fats	34	24 Consider the anti-angiogenic foods	76
7 Don't eat animals or their secretions	36	25 Drink green tea	77
8 Don't stress about protein	40	26 Plan ahead for travel	79
9 Eat more starch/complex carbohydrates	44	27 Try new foods	81
10 Eat fewer refined carbohydrates	46	28 Appreciate the global impact of your food choices	82
11 Enjoy both types of fiber	48	29 Understand your motivation	84
12 Resistant starch	50	30 Define and visualize success	85
13 Feel happier with carbohydrates	51	31 Balance cost and convenience	87
14 Eat the rainbow	53	32 Appreciate the paradox of choice	89
15 Mix your greens	56	33 Be aware of "The Pleasure Trap"	92
16 Eat a variety of plant foods	59	34 Chew your food thoroughly	93
17 Eat for strong bones	60	35 Eat with mindfulness and gratitude	35
18 Take supplements only as needed	62	36 Eat when you're hungry, stop when you're full	97
		37 Eat with joy	99
		<b>Chapter 3: Helpful Resources</b>	<b>102</b>
		<b>Appendix</b>	<b>106</b>
		<b>Credits and Acknowledgements</b>	<b>108</b>

# INTRODUCTION

I've been interested in food and health ever since my dad was diagnosed with high cholesterol and high triglycerides back in the 1970s. At that time, the connection between diet and wellness was in its earliest stages. We knew that what we ate had some impact on our health, but it was several decades before solid evidence supported that belief.

I followed my passion for nutrition and became a registered dietitian over 30 years ago. I've been a vegetarian even longer than that and started eating a vegan, plant-based diet in January 2010. Throughout the years, I have become accustomed to friends and patients saying to me, often in despair, ***“Please, tell me what to eat!”*** Well-meaning people want to eat in a healthful manner, but get frustrated because of all the conflicting information coming at them from so many different sources.



We live in a time when we have easy access to the greatest amount of nutritional information ever available. With the click of a mouse, we can read scientific journals with the latest research findings, order a new book about healthy eating, or read a blog post discussing specific nutritional issues. Talk shows and radio shows frequently feature guests speaking on various aspects of nutrition. Popular magazines and newspapers invariably have a health section devoted to sharing nutritional information.

But this ***ease of access is a double-edged sword***, because the sheer volume of material available makes it very challenging to wade through the information and separate the truths from half-truths and outright lies.

Consequently, many of us are more confused than ever. Should we eat like our Paleolithic ancestors or our agrarian forefathers? Is a high-protein diet life-saving or cancer-causing? Should we eat more carbohydrates or less? What about fish oil? Vitamin D? Organic versus non-organic food?



It's enough to make us give up in frustration and continue our same dietary habits. After all, if those that claim to be experts can have opposing opinions, how can any of us make well-informed choices?

But it doesn't have to be this complicated. In my career as a dietitian, I have seen diet fads come and go. I have also learned to separate the truths from the untruths by looking at the scientific research and speaking to unbiased and properly credentialed experts in the field.

And something I've noticed in the past five years is an explosion of information supporting the nutritional superiority of a whole-food, plant-based diet. For instance, the groundbreaking book, *The China Study*, co-authored by T. Colin Campbell, PhD, highlights the research findings from the most reputable scientific journals showing that:

- heart disease can be reversed solely with diet
- consumption of dairy products can increase the risk of prostate cancer
- breast cancer is affected by hormone levels in the blood, which are determined by the food we eat
- diabetic patients can discontinue their medication by making dietary changes
- a healthy diet can prevent kidney stones





Similarly, John McDougall, MD, has written several books demonstrating the health-promoting aspects of a low-fat, starch-based diet. In *The McDougall Plan*, he reminds us that when we take away the factors that make us sick and provide the lifestyle and diet that support our health (i.e., a starch-based, health-supporting diet), we quickly begin to recover. This is because the body, when given the right conditions, has an innate ability to heal itself.

More recently, Caldwell B. Esselstyn Jr., MD, has written *Prevent and Reverse Heart Disease*. He convincingly demonstrates that plant-based, oil-free nutrition can both prevent and reverse the progression of heart disease.

Dr. Neal Barnard has focused his attention on diabetes. In *Dr. Neal Barnard's Program for Reversing Diabetes*, he shows how it is possible to repair insulin function and reverse type 2 diabetes by following a diet based on vegetables, fruits, whole grains, and legumes.

And finally, author Michael Pollan has brought the whole concept of food and health into the forefront of mainstream culture with several popular books, including his latest, *Food Rules: An Eater's Manual*. This book of 64 simple rules is based on Pollan's succinct admonition to "Eat food. Not too much. Mostly plants." I love the clarity and brevity of this dietary prescription.

In light of current dietary research, however, I would like to take it to the next level. I would revise the dietary prescription to read, "**Eat whole food. Mostly starch. Only plants.**"

By following these three simple guidelines, you will be well on your way to health, happiness and your optimal weight.

And yet, even the simplest guidelines can use some elaboration.

And so, with great appreciation for the nutrition megastars who have written on the subject of whole-food, plant-based nutrition, and a tip of the hat to Michael Pollan for making the idea of food rules palatable, I offer you my suggestions in response to the plea, "Please tell me what I should eat!"

In Chapter 1, we do some myth-busting and present some cool facts that support a whole-foods, plant-based diet.

In Chapter 2, I share my *Healthy Eating Rules*. These rules are supplemented with lots of practical suggestions and useful sidebars to help you get started.

In Chapter 3, I share some of my favorite resources with you. These include a reference book list, a cookbook list, and useful websites.

# HOW TO READ THIS BOOK



This book is written for the person who has become aware of the benefits of eating a plant-based diet but wonders what to do next. For many people, switching to a plant-based diet presents a radical shift and is fraught with uncertainty. My goal in writing this book is to answer your questions and set your mind at ease regarding the safety and efficacy of following a whole food, plant-centered diet. This book is the answer to the question: “Now what?”

I suggest you read Chapter 1 completely, and then read through the healthy eating rules in Section 2 according to your particular interests. While each of the rules is important, some may be more relevant to your situation at this time than others. Feel free to learn and apply what you can right now, and come back to the other rules when you are willing and able to. Keep in mind the most fundamental rule of all:

*small* dietary changes result in *small health benefits*  
*large* dietary changes result in *large health benefits*

And finally, don't be overwhelmed by the science. I have included a fair share of scientific research that supports the basic eating rules. You can skip the science portions (there will be clear Science Alert! tags) and simply read the rules. At the very minimum, follow the Healthy Food Pyramid in Rule 1 and you will be well on your way to a healthy, plant-based diet.

***Let's get started!***



*Chapter One*

**MYTH-BUSTING AND COOL FACTS ABOUT  
PLANT-POWERED EATING**



**Myth #1**

Vegans are wimpy.

**Fact**

Smart people choose a plant-based diet.  
So do super athletes and firemen.



**Let's be frank.** If you were to ask the typical American to describe his or her impression of a vegan, you might get replies like “wimpy,” “unhealthy,” “on the fringe,” “weird,” and “crunchy.” This misperception of vegans and people following a plant-based diet continues to pervade our society. It is likely a throwback to the sixties and seventies when the back-to-nature hippie earth-mama culture was in its prime. As a vegetarian who lived through that time, wore Birkenstocks, and had a peasant-style dress that was literally belted with a rope, I can confirm that yes, there were a lot of unhealthy vegetarians. We were so busy

combining proteins (unnecessarily, as it turned out) and soaking beans and getting back to nature that we let our image become tainted by popular culture. It's also worth noting that there were, and still are, powerful corporate interests that viewed the growth of vegetarianism as a real threat and propagated the negative stereotypes.

But **veganism has experienced a major makeover in the last five years.** The face of the pasty-faced, stringy-haired vegan has been replaced by the power suit of multi-millionaires and the trophies of world-class athletes.

### **Business and Entertainment mavens include:**

Las Vegas casino resort/real-estate developer **Steve Wynn**; magazine editor, publisher, and real estate billionaire **Mort Zuckerman**; co-founder of hip-hop label Def Jam, **Russell Simmons**; former-President **Bill Clinton**; Ford Executive Chairman of the Board **Bill Ford**, Twitter co-founder **Biz Stone**, venture capitalist **Joi Ito**, Whole Foods Market Chief Executive Officer **John Mackey**; motivational leader **Tony Robbins**; singer-songwriter musician **Moby**; actress/author **Alicia Silverstone**; and television host **Ellen Degeneres**.

### **Worldclass athletes include:**

Ex-NBA star **John Salley**; Atlanta Falcons tight end **Tony Gonzalez**; ultramarathoner **Scott Jurek**; former National Hockey League forward **Georges Laraque**; professional Ironman triathlete **Brendan Brazier**; legendary South African golfer **Gary Player**; and World Heavyweight boxing champion **Mike Tyson**.

### **Firemen**

**Rip Esselstyn** is a champion triathlete and former firefighter who has single-handedly dispelled the notion of the plant-eating weakling. He has excelled in these rigorous physical endeavors while eating an entirely plant-strong diet. He also helped several firefighters in his Austin firehouse adopt, and thrive on, a plant-based diet. I highly recommend his book, *The Engine 2 Diet*, as a terrific guide to getting started.

As you can see from this list of who's who in the world of finance, entertainment, and world-class athletics, a plant-based diet is not for wimps. Rather, it is the **diet of choice** among smart, strong, forward-thinking people who know that this diet will give them the nutritional edge and put them at the top of their game.

**Myth #2**

Carbohydrates are fattening.

**Fact**

Carbohydrates are NOT fattening.



Let's just dispel the notion that carbohydrates are fattening once and for all. Carbohydrates and proteins are equally caloric, each supplying 4 calories per gram. In comparison, caloric-dense fat supplies 9 calories per gram and alcohol provides 7 calories per gram.

*Carbohydrates are not fattening.* It's the fat and sugar typically added to the carbs that do the damage. For instance, a bowl of multi-grain oaty-circles breakfast cereal with no added sugar contains 82 calories and 4.5 grams total sugar. The same serving size of yogurt-covered oaty-circles contains 120 calories and 10 grams of total sugar. That represents 46% more calories and twice as much sugar in the same amount of cereal.

Whole grains, dried beans, fruits and vegetables are not inherently fattening. We get into trouble with the double-whammy of 1) refining the grains and stripping away the healthy nutrients in the fiber and germ of the grain, and 2) adding all sorts of sugar, fat and salt to carbohydrate-rich foods.

*As another example, consider the potato.* A simple baked potato is full of vitamins, minerals, starch and fiber. A typical baking spud weighs 173 grams, contains 160 calories, has less than 1 gram of total fat and is extremely filling. In contrast, a similar portion of potato chips (173 grams or 6 ounces) has 922 calories and contains 62 grams of fat, of which 7.5 grams are saturated. The chips have 476% more calories and 6,000% (yes, you read that right) more fat than the potato.

Dietary studies support the fact that carbohydrates are not fattening. A cross-sectional survey of 4,451 adults in Canada showed that the slimmest people ate the most carbohydrates (fruits, vegetables and whole grains) and the heaviest people ate the fewest carbohydrates. ***Clearly, carbohydrates are not inherently fattening.***



**Myth #3**

Our bodies require animal protein, and the more the better.

**Fact**

Our bodies do not need animal protein and too much is not healthy.

To better understand the issue of protein, it's helpful to know a few protein basics. Protein is made up of chains of 20 different amino acids that are joined together in a variety of different sequences. These amino acids are like the 26 letters of the alphabet that can be combined into all of the words of our language. The 20 amino acids can be arranged into millions of different proteins for the body to use.

Our bodies can produce most of the 20 amino acids but there are 9 amino acids that we cannot synthesize. These are referred to as *essential amino acids*, and we must get them from our food.

When we eat protein-containing foods, digestive enzymes break the bonds between the amino acids. The amino acids are absorbed into the bloodstream. They then enter the individual cells, where they are reassembled into whatever proteins are needed by the body.

The **key point** here is that once the protein is digested (broken into the individual amino acids) the body does not know or care where the essential amino acids came from. For example, the amino acid methionine from a plant is indistinguishable from the methionine coming from animal tissue.

In the early days of nutritional science, it was mistakenly thought that foods had to be carefully combined at each meal in order to provide adequate, complete protein. This myth has long since been dispelled and it is now known that food combining is not necessary.

A **second key point** is that excess dietary protein cannot be stored. If more protein is ingested than the body requires, the liver and kidneys break it down. Some of the protein is used as energy, and the remainder is stored as fat. There is no reason to eat more protein than the body needs.

In fact, ***too much protein has negative health effects.***

When excess dietary protein is broken down, the resulting amino acids increase the acidity of our bloodstream and need to be buffered. To counter the increased acidity, the body pulls acid-buffering calcium out of the bones to buffer the acid and maintain the proper pH of the blood. Consuming excess protein from any source, plant or animal, is not desirable. I will talk more about this in the following Rules.

The final word on plant protein comes from the American Dietetic Association, a group known for its conservative stance on nutrition. The 2009 American Dietetic Association's *Position Paper on Vegetarian Diets* states:

*Plant protein can meet requirements when a variety of plant foods is consumed and energy needs are met. Research indicates that an assortment of plant foods eaten over the course of a day can provide all essential amino acids and ensure adequate nitrogen retention and use in healthy adults, thus complementary proteins do not need to be consumed at the same meal.*



**Myth #4**

Modern diseases have unrelated causes.

**Fact**

We are suffering from one disease (the disease of over-nutrition) that manifests in a variety of different forms.

Heart disease. Breast cancer. Stroke. Diabetes. Obesity. Prostate cancer. Colon cancer. This list reads like a laundry list of our nation's current health woes. And what do all of these conditions have in common? The answer is diet. In fact, it is safe to say that these are different manifestations of the same condition: the disease of affluence. They are all the result of a diet high in fat, refined carbohydrates and calories and low in complex carbohydrates, fiber and micronutrients.

***Just as these diseases are caused by the same bad diet, they can all be turned around by the same good diet.***

A whole food, plant-centered diet has been shown to prevent, suspend and in many cases, cure, these chronic, degenerative diseases. How great is that?



**Myth #5**

Olive oil is a health food.

**Fact**

The benefits of olive oil have been greatly overstated.



Olive oil is a highly processed food. To make olive oil, olives are pressed in a machine. The pulp and the fiber are discarded, leaving 100% fat. This fat is a refined food, isolated from the carbohydrate, protein, and phytochemicals that are found in the olive's natural state.

In addition to being separated from healthy food components, olive oil is as high in calories as any other fat. It contains 9 calories per gram. (In contrast, carbohydrates contain 4 calories per gram). To put this in visual terms, consider the following. One tablespoon of olive oil contains the same amount of fat (around 14 grams) as one entire cup of olives. Which do you think would be more filling?

While olive oil does contain a high percentage of monounsaturated fat, which has little or no effect on serum cholesterol, it's still 100% fat. Furthermore, olive oil contains a hefty amount of saturated fat (about 13%), which increases cholesterol and worsens insulin resistance.

*You may be familiar with the Mediterranean diet that advocates the use of olive oil as part of a healthy diet. A closer look at the data shows that *the Mediterranean diet is healthy **in spite of**, not because of, olive oil.* It is a healthy diet because of its emphasis on fruits and vegetables and decreased emphasis on meat and dairy products.*

And, **here's the kicker:** In the original study that initiated the whole Mediterranean diet craze, known as the Lyon study, researchers actually measured **canola** oil, not olive oil. In short, the purported benefits of olive oil have been over-hyped and under-proven. So, skip the olive oil and focus on eating whole, unprocessed food.



**Myth #6**

Poor eating is due to a lack of will power.

**Fact**

Lack of will power is not the problem.

The reason you crave foods when you are on a typical low-carb, high-protein diet is that you are not meeting the nutritional needs of the cells of your body. No amount of will power can overcome nature's design for the brain to run on glucose for energy. You can cut out all the carbs you want, and your brain will still call out for them. Your brain knows you need carbs, and so does your body.

***We are hardwired to seek foods high in caloric density.***

High-caloric-density foods offered survival advantages to the thousands of generations of humanity that preceded us, and finding high-energy foods was a good thing. But now, for the first time in history, our problem is that we have access to too much food, rather than too little.

*In short, the problem is not too little food, it's too much. And too much of the **wrong** kinds of food. Did you know that the fast food industry spent \$4.2 billion in marketing in 2009? That huge amount of money is spent in the hope of enticing you to buy foods notoriously high in fat, sodium, and refined sugar.*

So, don't be too hard on yourself. There are a lot of evolutionary, social and cultural forces influencing your food choices today. Recognize what you are up against and resolve to make the best choices you can. And it is my hope that the information in this book can help you make the wisest, best-informed choices possible.

Having dispelled some myths, let's look at the simple things you can do to maximize your health.



*Chapter Two*

**HEALTHY FOOD RULES FOR  
OPTIMAL HEALTH**

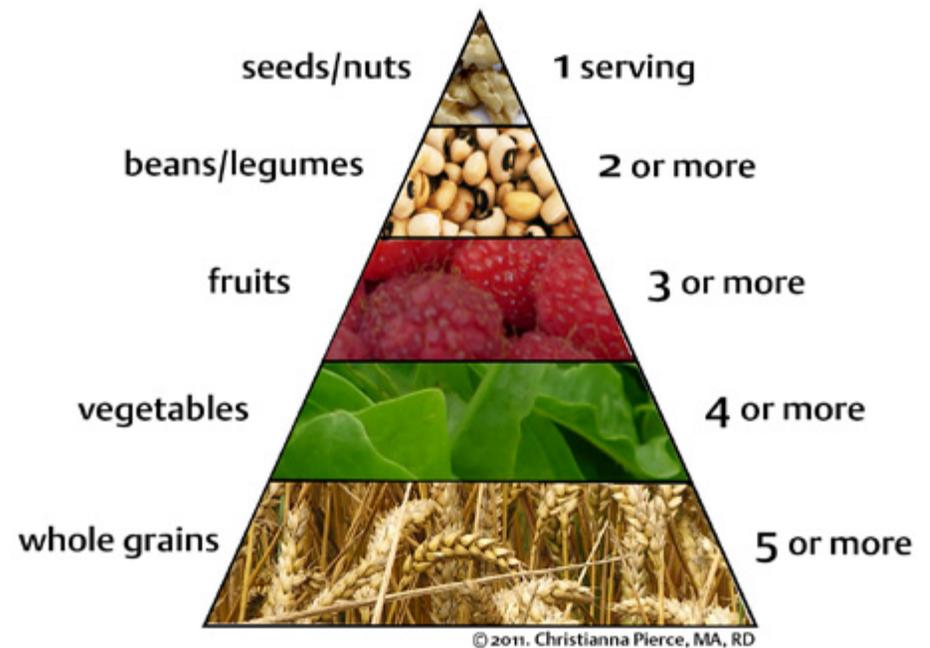


1

# *Follow the Healthy Food Pyramid*

**The Healthy Food Pyramid makes plant-centered eating as easy as 1-2-3-4-5.**

The Healthy Food Pyramid is a simple visual aid to help you plan your daily menu. Whole grains and other complex carbohydrates (including rice, quinoa and potatoes) will provide the foundation for your eating plan. On top of this, you will eat a variety of vegetables, especially leafy greens, and other richly colored veggies, such as carrots and squash. Anti-oxidant rich fruits, such as blueberries and nectarines, form the next level. At the next level, at least two servings of beans and legumes, such as lentils, garbanzo beans and pinto beans, should be eaten each day. And finally, you should include one daily serving of nuts or seeds.



***The healthy food pyramid***

---

**Consider printing a copy of the Healthy Food Pyramid chart. Post it someplace you can readily see it, such as on your refrigerator.**

(Please see Appendix for larger image).

---

***Eat:***

At least 5 servings of **grains** each day.

At least 4 servings of **vegetables**.

At least 3 servings of **fruit**.

At least 2 servings of **beans and legumes**.

1 serving of **seeds or nuts**.

2

## *Eat whole food*

Eat food that is as close to its *natural, unprocessed state* as possible. Remember that the more processing a food undergoes, the less its nutrient value. In order of nutrient value, aim for foods in this order from **best** to **worst**: fresh, frozen, canned.



## Limit fake “meats”

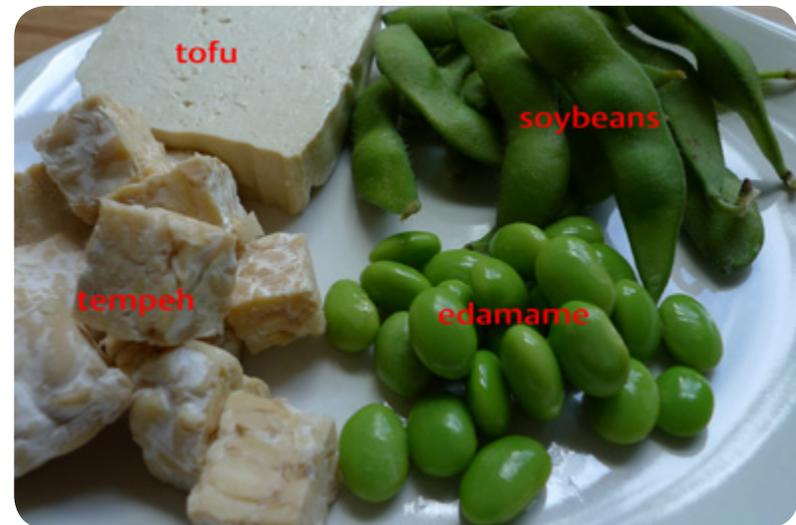
Anytime you extract specific nutrients from whole food, you upset the natural nutritional balance that exists in the whole food. This can have negative repercussions. For instance, soy isolates, which are used to make soy-based meat substitutes, have been shown to raise Insulin-like Growth Factor 1 (IGF-1), a powerful carcinogen that has been linked to the development of colon cancer, prostate cancer, and premenopausal breast cancer.

You can identify the synthesized concentrated proteins on labels by the following words: *textured vegetable protein (TVP)*, *isolated soy protein*, *defatted soy flour*, *organic textured soy flour*, *soy protein concentrates*, and *soy concentrates*.

The healthier forms of soy include tempeh, tofu, miso, and edamame.

## Eat different parts of plants

Take the whole plant into account. *Roots* (e.g., potatoes, beets and yams) are great sources of energy in the form of starch. *Stems* (e.g., celery) are rich in fiber and micronutrients. *Leaves* (e.g., kale and collard greens) are filled with antioxidants, vitamins and minerals. *Fruits* (e.g., apples, cherries, and berries) are great sources of fiber, bioflavonoids, and other important phytochemicals. *Nuts and seeds* (e.g. pistachios, walnuts, and sunflower seeds) contain essential fatty acids, fiber, minerals and protein.



3

## *Avoid highly processed food*

### **Sodium content**

Processed foods are notoriously high in sodium. A helpful rule of thumb to keep your sodium intake within healthy limits is: eat fewer mg of sodium than the number of calories in particular food. For instance, if a portion size is listed as 300 calories, the desirable sodium content would be less than 300 mg.

Highly processed food is typically high in sodium, fat (including saturated fat), sugar and calories. It can be found on your grocer's shelves and in fast food restaurants. Limit your intake of processed food and choose food made from recognizable, natural ingredients. A good rule of thumb is to skip anything containing ingredients that would not be recognized by a person living 100 years ago.

## Read labels

It is good to begin reading food labels on packaged and prepared foods. Make special note of any items you cannot pronounce or cannot picture in your mind's eye. For example, let's look at a **Twinkie label**. Among its several processed and/or artificial ingredients are:

- Modified corn starch
- Glucose
- Leavenings (sodium acid pyrophosphate, baking soda, monocalcium phosphate)
- Sweet Dairy Whey
- Soy Protein Isolate
- Calcium and Sodium Caseinate
- Soy Flour
- Salt
- Mono and diglycerides
- Polysorbate 60
- Soy lecithin
- Cornstarch
- Cellulose Gum
- Sodium stearoyl lactylate
- Natural and Artificial Flavors
- Sorbic acid (to retain freshness)
- Yellow 5
- Red 40

**Buyer, beware!**



4

## *Don't add oil or fat*

All vegetable oils are highly processed, refined foods. They are extracted from plants (e.g., olives, corn, rapeseed, sunflower seeds, etc.) and they are isolated from the carbohydrate, protein, and nutrients that are found in the plant's natural state.

All oils are 100% fat. They are more than twice as caloric as carbohydrates and protein and are readily stored in the body's fat cells. As Dr. John McDougall has said, "The fat you eat is the fat you wear."



### Did you know?

Your arteries are lined with a layer of cells called the endothelium. The risk of developing atherosclerosis, also known as hardening of the arteries, is directly related to how well the endothelium functions. And your endothelium function is directly affected by what you eat on a daily basis.

Several studies show that a high-fat meal, even unsaturated, can damage the lining of the arteries. This increases the risk of atherosclerosis.

High-fat meals are bad in the short-term for the immediate damage they do to the endothelial lining of the arteries. They are bad in the long-term because they facilitate development of arterial blockages. Eat a low-fat diet and substitute carbohydrates for fats.

### Oil damages arteries

Researcher and physician Caldwell Esselstyn, Jr., MD has looked at the effects of diet in general and olive oil in particular on the endothelium. He found that the endothelium was impaired by meals containing olive oil. Olive oil causes damage to the endothelial lining of arteries, which in turn increases the risk of heart attacks and strokes.

There is no reason to incorporate refined oil or fat into your healthy diet. You should avoid eating margarine, butter, mayonnaise, salad dressings and cooking oils. These foods are fattening, disease-promoting, and unnecessary.

#### *Micro-suggestion*

Sauté your veggies in water or broth.

5

## *Eat nuts and seeds in moderation*

Nutrient-dense nuts and seeds are rich sources of protein, B vitamins, Vitamin E, dietary fiber, plant sterols, and essential minerals such as zinc, magnesium, phosphorus, potassium, copper, and selenium.

Research shows that consuming nuts as part of a healthy diet is associated with reduced risk of fatal heart disease and non-fatal heart attacks. In fact, a recent study found that eating nuts (including peanuts) five or more times per week reduced heart disease by about 50%.



Nuts and seeds are naturally **high in fat**, however, so eat them in moderation. On the Healthy Food Pyramid, you will see that they are the only category with a daily intake limit. **Aim for one serving a day.** See the sidebar for examples of serving sizes. Also, choose raw, unsalted nuts over dry-roasted, salted nuts.

---

### Did you know?

---

One ounce of walnuts (about 14 shelled walnut halves) meets the 2002 dietary recommendation of the Food Nutrition Board of the National Academies' Institute of Medicine for omega-3 fatty acids. These are the equivalents of a small handful of nuts or 1 ounce of nuts:

- *Almonds: 23*
- *Brazils: 6*
- *Cashews: 18*
- *Hazelnuts: 21*
- *Macadamias: 10-12*
- *Pecans: 19 halves*
- *Pine nuts: 167*
- *Pistachios: 49*
- *Walnuts: 14 halves*

1 serving (slightly over 1 ounce) nut butter = 2 Tablespoons

---

6

## *Balance your Omega fats*

Just as there are essential amino acids that your body cannot make, there are also **two essential fatty acids** that your body cannot produce. You must obtain these essential fatty acids from food. The first, alpha-linolenic acid (ALA), is converted to **omega-3 fats** (including docosahexaenoic acid (DHA) and eicosapentaenoic acid (EPA)) and is found in walnuts, hemp seed, flax seed, chia seed, and leafy greens. The second, linoleic acid (LA), is converted to **omega-6 fats**. It is found in corn oil, safflower oil, sunflower oil, soybean oil, and cottonseed oil.



### **The key is balance**

The key is to try and eat a balanced ratio of omega-3 to omega-6 fats. Ideally, this ratio would be 1:1, as it was in the diets of our long-ago ancestors. However, modern food production tilts the ratio decidedly in favor of omega-6 fats. The prevalence of added fats and refined oils in the **Standard American Diet (SAD)** means the typical American diet has an Omega-6 to Omega-3 ratio of 10:1 or even 20:1. While eating a ratio of 1:1 can be difficult to achieve in modern times, we should strive to have at least a 2:1 balance of omega-6:omega-3 fats in our diet. In other words, we should eat about twice as much omega-6 as omega-3.

## Direct sources of EPA and DHA

The human body can convert ALA into EPA and DHA, although the conversion rate is not entirely known. For this reason, a direct source of EPA and DHA such as micro-algae is sometimes recommended. Supplements made from the micro-algae are becoming increasingly available online and in healthy supermarkets. *(Note: It should be mentioned that recent evidence has raised a potential concern that large amounts of ALA could be harmful to the eyes over the long term.)*

Foods high in linoleic acid (precursor to Omega-3):

- Ground Flax seeds
- Walnuts
- Hemp seeds
- Chia seeds
- Leafy Greens

### *Micro-suggestion*

Ground flax seeds make a great egg substitute in cooking

1 Tbsp ground flax seeds + 3 Tbsp water (or other liquid) = 1 egg

### Did you know?

Fish get their omega-3 fats from micro-algae in the sea.

Fish oil is often contaminated with mercury.

*"The mercury contamination in fish and fish oil may be so extensive that some recent data suggests that it may cancel out the benefits of the omega 3s in the fish."*

**~ Michael Greger, MD (lecture)**

This is one more reason to skip the fish oil and get essential fats from plant sources.

7

## *Don't eat animals or their secretions*

The health benefits of a whole-food, plant-based diet are well documented. T. Colin Campbell, PhD, asserts, *“There are virtually no nutrients in animal-based foods that are not better provided by plants.”*



### **The differences between animal foods and plant-based foods**

#### **Animal foods contain high levels of:**

- fat
- saturated fat
- cholesterol
- no dietary fiber

#### **Plant foods contain:**

- zero cholesterol
- less saturated fat (except for tropical oils)
- plenty of soluble and insoluble dietary fiber
- tens of thousands of health-promoting phytonutrients

## Casein is problematic

Casein (milk protein) consumption has been associated with an increased incidence of several autoimmune disorders, including Type 1 diabetes and MS.

Casein has also demonstrated carcinogenic effects in animals. From *The China Study*:

*What protein consistently and strongly promoted cancer? Casein, which makes up 87% of cow's milk protein, promoted all stages of the cancer process. What type of protein did not promote cancer, even at high levels of intake? The safe proteins were from plants, including wheat and soy.*

Toxic chemicals make their way into animal products. The flame-retardant chemical polybrominated diphenyl ether (PBDE) is ubiquitous in butter, fish, poultry, eggs, meat and dairy. This compound is associated with reproductive and developmental issues, cancer, and other health problems.

## Dr. Spock

After decades of promoting meat and milk products for children, highly respected pediatrician Benjamin Spock, MD had a complete change of heart in his last edition of *Dr. Benjamin Spock's Baby and Child Care*. He recommended children consume breast milk for the first year of life, followed by a dairy-free vegetarian diet after the age of two. He stated, "I no longer recommend dairy products after the age of 2 years. Other calcium sources offer many advantages that dairy products do not have."

Reasons cited included the link between cow's milk and an increase in childhood-onset diabetes; many children, particularly those of African and Asian ancestry, are lactose intolerant and cannot digest lactose; dairy foods can impair a child's ability to absorb iron and can cause loss of blood from the digestive tract in small children and in older children with allergies to cow's milk; and milk products can cause sensitivities in some children that manifest as respiratory problems, eczema, constipation and middle ear infections.



## Comparing cheddar cheese, sausage and pinto beans

People often think that eating cheese is healthier than eating meat. To deflate this misperception, consider the following facts:

- Cheddar cheese has nearly twice as much saturated fat as sausage.
- Cheddar cheese derives 47% of its calories from saturated fat.
- Sausage derives 27.8% of its calories from saturated fat.

I am not, of course, advocating eating sausage instead of cheese. I am just pointing out that cheese, too, is a very high-fat food and should be avoided.

To put this in perspective, consider the fact that:

- Pinto beans derive less than .01% of calories from saturated fat.

---

## The drug-like appeal of cheese (opioid effect)

---

Dr. Neil Barnard has discovered that when milk protein is digested in the human gut, it behaves differently than other proteins. Rather than breaking down into individual amino acids, it breaks into short strings of 4-7 amino acids. These short chains are biologically active and exert a mild narcotic action. Scientists refer to these as casein-derived morphine-like compounds, or casomorphins. Some scientists have speculated that people become addicted to cheese because of the narcotic effects of casomorphins.

I can't count the number of people who have said to me, "I could never give up cheese!" I used to say that myself. But once I gave up dairy, including cheese, I found myself feeling better than ever.

One thing that helped me give up eating cheese was to visualize the pus that is found in dairy products. Yes,

it's true, there are significant amounts of somatic cells (pus) in milk. The dairy industry recognizes this and operates under strict guidelines to maintain an "acceptable" pus count in dairy products. As for me, I find the acceptable levels of dietary pus to be, umm, zero. But, I digress.

It might help to realize there is an addictive type of quality to cheese, and realize that giving it up may be somewhat difficult at first, but will get much easier with the passage of a little time. It's also helpful to remember the healthy benefits of giving up cheese, including lower cholesterol, decreased weight, and better complexion. Finally, take advantage of the many delicious "cheese sauce" recipes that are quick and easy to make. For a great collection of these recipes, I highly recommend Jo Stepaniak's *The Ultimate Uncheese Cookbook* (see Resources).



8

## *Don't stress about protein*



It's quite easy to get adequate protein from plant sources. **The rule of thumb is this:** *If you are eating adequate calories to maintain your proper body weight and you are eating whole, unrefined, plant-based foods, you are most likely meeting your protein needs.* Furthermore, as you will see in the sidebar, careful combining of plant foods is not necessary to ensure adequate intake of protein.

Problems may arise, however, if you are consuming too few calories (due to poverty, illness-induced lack of appetite, an eating disorder such as anorexia nervosa) or if you are eating insufficient amounts of higher-protein plant foods (due to high intake of junk food; too much emphasis on fruit and salads; avoiding beans and legumes for any reason). To restate, you need to eat a variety of whole, plant-based foods, with enough calories to maintain your ideal body weight, to get sufficient dietary protein.



### Protein requirements

Having said that, there is a surprising lack of consensus on the exact amount of protein we need. For instance, in 1974 the World Health Organization (WHO) recommended that we get **5% of our calories from protein**. In 2003, the WHO changed the recommendation to 10-15% of our calories come from protein. The 2002 report of the Institute of Medicine recommends 10-35% of calories come from protein. Stated in another way, it recommends 0.8 grams per kilogram of body weight for adults, with slightly higher amounts during pregnancy.

Faced with so many conflicting recommendations, I was delighted when I had the opportunity to discuss protein requirements with *The China Study* co-author **T. Colin Campbell, PhD**. I asked him what percentage of our calories should come from protein. Without hesitation, he replied, **“Ten percent. That’s rock solid.”** He went on to explain that in 1943 the Food and Nutrition Board of the Institute of Medicine determined that we need 5-6% of our calories from protein. They gave it a safety margin of two standard deviations, bringing the recommendation to 10%. In a similar fashion, today’s FDA Office of Food Labeling bases its Daily Reference Value (DRV) for protein on a protein intake of 10% of calories.

## Protein content of various foods

To put this in perspective, human milk derives 5.6% of its calories from protein. Human milk allows a baby to double in size while consuming only that food. It is unlikely that our protein requirements in adulthood, when we are finished growing, would be much higher than this.

It is not difficult to get plenty of protein from plants. Here are some common foods and their percentage of calories from protein:

- celery: 17%
- romaine lettuce: 24%
- almonds: 15%
- broccoli: 27%
- spinach: 39%
- cooked oatmeal: 14%
- sunflower seeds: 15%
- pinto beans, cooked: 25%
- cantaloupe: 9%
- mushrooms: 56%
- mustard greens: 41%
- onions: 9%
- potatoes: 18%
- spinach: 50%
- turnip greens: 20%
- watercress: 84%
- zucchini: 30%



## Example

To see how this would play out in your diet, consider that if you consumed 2,000 calories of broccoli, you would get 135 grams of protein. If you consumed 2,000 calories of cooked oatmeal, you would get 71 grams of protein. Of course, I am not suggesting you get all of your nutrients from any single food. Rather, I am demonstrating how easy it is to get plenty of protein by eating plants and whole foods.

## Too much protein is not a good thing

Too much protein is hard on your body. It stresses the liver, kidneys and bones. High-protein animal foods in particular are usually also high in saturated fat. Eating large amounts of high-fat foods for a sustained period raises the risk of coronary heart disease, diabetes, stroke and several types of cancer. Furthermore, people who can't use excess protein effectively may be at higher risk of kidney and liver disorders, and osteoporosis.

Moreover, excess protein significantly increases Insulin-like Growth Factor-1 (IGF-1), which stimulates cell growth. This can stimulate cancer, acne and aging.

## Did you know?

### Limiting amino acids

While the myth of combining protein at every meal has been debunked, it is still a good idea to eat a variety of beans, whole grains, fruits and vegetables every day. All plants contain all 9 of the essential amino acids. But they occur in different ratios. This is why it is important to consume a variety of beans and whole grains on a regular basis. The amino acids do not need to be consumed at the same meal, however. In other words, you don't need to worry about combining your proteins at one sitting. On the other hand, don't rely on one subset of foods to the exclusion of others or your chances of missing essential nutrients increases.

9

## *Eat more starch/complex carbohydrates*



**Complex carbohydrates should form the foundation of your plant-centered diet.** Whole foods containing complex carbohydrates are associated with lower caloric intake, lower risk of obesity, and decreased risk of diabetes and cardiovascular disease. These foods are naturally low in fat, high in dietary fiber, and contain no cholesterol. During digestion, complex carbohydrates (or starch) are broken down into glucose for the body to use for its energy needs. **When you supply your body with adequate energy in this way, you are less likely to crave sugars and fats** because you are meeting your energy needs with clean-burning, non-fattening fuel.

Furthermore, the dietary fiber found in whole, carbohydrate-rich foods helps your stomach feel full more quickly than a low-fiber meal. This feeling of fullness results in **fewer calories** being consumed at mealtime.

Additionally, plants containing complex carbohydrates contain a variety of substances with beneficial properties. These compounds include phytoestrogens, plant sterols, lignin, and antioxidants. These substances have been found to **prevent and/or inhibit the growth of cancer, improve glucose control and insulin resistance, and reduce obesity.**

---

### Watch this:

---

If you want to see the effects of a high-fat, high-protein, low-complex-carbohydrate diet, you need look no further than the documentary film, *Supersize Me*. In this film, Morgan Spurlock eats only food from McDonald's for 30 straight days. You can witness the physical and emotional deterioration of this once vibrant, healthy man into an overweight, unhealthy, unhappy shell of his former self.

---

## Examples of complex carbohydrates

**Whole Grains:** amaranth, barley, brown rice, bulgur (cracked wheat), oat, millet, quinoa, rye, spelt, teff, triticale, wheat berries

**Legumes:** **lentils** (brown, orange, French); **beans** (adzuki, black (turtle), black-eyed peas, garbanzo, great northern, kidney, lima, navy, pink, pinto); **peas** (split green, split yellow, whole green)

**Starchy vegetables:** **roots** (white potatoes, sweet potatoes, yams, rutabaga, parsnips, taro); **winter squashes** (acorn, butternut, hubbard, pumpkin, spaghetti squash); **corn**

10

## *Eat fewer refined carbs*

Refined carbohydrates can be either *simple* (such as white sugar, brown sugar and syrups) or *complex* (such as white flour and white rice and foods made from these products). These foods are nutritionally empty and should be reduced or eliminated in a health-promoting, plant-powered diet. With few exceptions (such as cauliflower, rutabagas, turnips, and potatoes), white food is empty food.

White sugar contains empty calories and adds no nutritional value to a meal. Sugary foods are dangerous, not just because they increase the risk of obesity, but because they displace healthy foods in the diet. High intake of sugar, particularly fructose (which is found in white table sugar and high-fructose corn syrup) contributes to obesity, insulin resistance, type 2 diabetes, hypertension and tooth decay.

### *Try this*

A better choice is date sugar, molasses, or raw coconut crystals.



---

## Twinkie, revisited

---

Ingredients on labels are listed in descending order of weight (from most to least). Also, sugar can be listed in many different forms, including corn syrup, high-fructose corn syrup, fruit juice concentrate, maltose, dextrose, sucrose, honey, and maple syrup. Let's revisit our Twinkie example. The first eight ingredients are:

- *Enriched bleached wheat flour*
- *Sugar*
- *Water*
- *Corn syrup*
- *High fructose corn syrup*
- *Partially hydrogenated vegetable and/or animal shortening (soybean, cottonseed and/or canola oil, beef fat)*
- *Whole eggs*
- *Dextrose*

From this list, four of the ingredients (sugar, corn syrup, high fructose corn syrup, and dextrose) are each a different form of sugar.

---

11

## *Enjoy both types of fiber*

Dietary fiber refers to the structural part of plants that cannot be digested by humans. There are two primary types of dietary fiber: *insoluble fiber* (which does not dissolve in water) and *soluble fiber* (which does dissolve in water). Notably, animal products do not contain a single gram of dietary fiber. The US National Academy of Sciences currently recommends a **daily intake of 20-35 grams of dietary fiber per day**. A medium-sized sweet potato, for example, contains 4 grams of dietary fiber.



---

## Fiber Facts

---

### Beans and legumes

In addition to being great sources of dietary fiber, beans and legumes are also good sources of protein, iron, calcium, zinc, B vitamins, and other nutrients that may prevent cancer and heart disease. They help you feel full and can help you lose weight.

---

### Insoluble Fiber

Foods containing insoluble fiber promote the movement of material through your digestive system and alleviate constipation. Insoluble fiber acts like a scrubby sponge scooting the unwanted waste material and toxins out of your system.

**Good sources of insoluble fiber include:** whole grains, wheat bran, nuts, whole flax seeds, celery, cauliflower, green beans, zucchini and fruits with their skin.

### Soluble Fiber

Foods containing soluble fiber have been shown to lower serum cholesterol levels and increase feelings of fullness. Soluble fiber also reduces the inflammation associated with obesity-related diseases and strengthens the immune system.

**Good sources of soluble fiber include:** beans and other legumes (kidney beans, chickpeas, navy beans, pinto beans, etc.), oats, barley, broccoli, carrots, Jerusalem artichokes, sweet potatoes, winter squash, plums, berries, apples, pears, and prunes.

12

## *Resistant starch*

Resistant starch is a type of fiber that resists digestion in the small intestine. It passes into the large intestine and is fermented by the friendly bacteria living there. This fermentation process produces a short-chain fatty acid called butyrate. Butyrate is important for its anti-inflammatory and anti-carcinogenic benefits. It also helps block the body's ability to burn carbohydrates so that it turns to burning fat as an alternative.

Resistant starch is a prebiotic, (e.g., a food source for the friendly bacteria in your gut) and strengthens the immune system. Resistant starch helps shut off the hunger signals in your brain, so you eat less. It also lowers the pH inside the colon, which blocks the absorption of cancer-causing agents and increases the absorption of calcium.

In short, resistant starch **increases satiety** (a feeling of fullness), **boosts immunity, promotes weight loss, lowers cholesterol and triglyceride concentrations, improves insulin sensitivity, and helps prevent cancer.**



**Science Alert!**

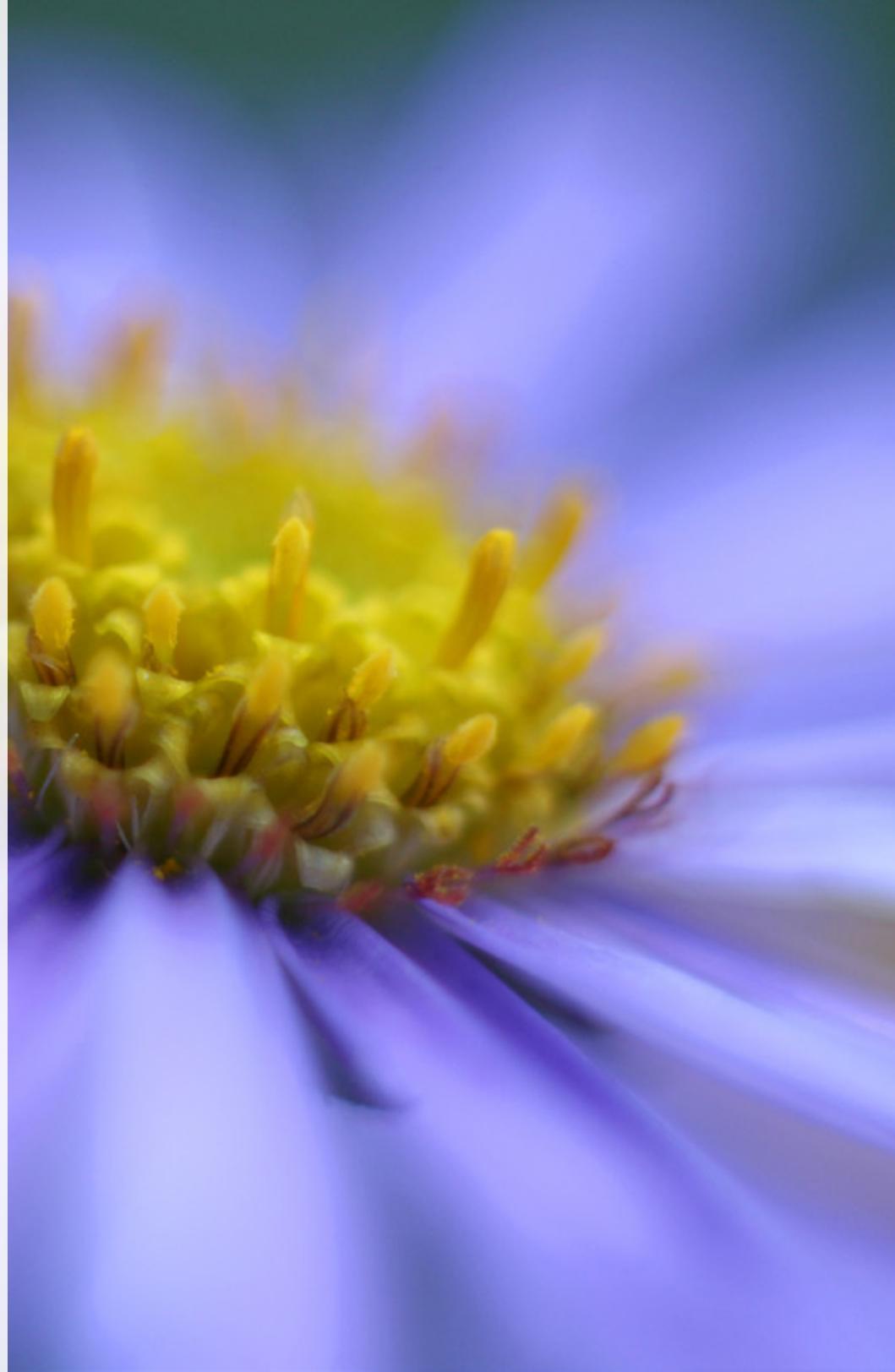
### **Sources of resistant starch**

Resistant starch is found in whole grains, beans and legumes, and unripe bananas. It is also formed in starchy foods such as potatoes, white rice, and pasta after they are cooked and then cooled.

13

## *Feel happier with carbohydrates*

Scientific research has determined that the food we eat has a direct impact on how good we feel. Protein and carbohydrates are particularly important in this regard. And, as we shall see, tryptophan plays an especially important role in mood determination.



### Neurotransmitters and food

**Serotonin** is the feel-good neurotransmitter that decreases appetite and increases your sense of well being. It is the same chemical that is boosted by antidepressants such as Zoloft and Prozac.

Serotonin is made from the amino acid **tryptophan**.

One of the ways to increase the levels of tryptophan (and subsequently, serotonin) in the brain is by eating carbohydrates. Carbohydrates cause a release of insulin, which selectively invites tryptophan's competing amino acids into the body's cells. This leaves tryptophan free to enter the brain and be converted to serotonin.

In other words, ***eating a high-carbohydrate meal after consuming protein will facilitate a sense of calmness and relaxation.*** It's not all in your head. This is one reason some people are drawn toward eating carbohydrates during times of stress. The carbs can function as a natural calming agent. Just be sure to eat complex carbohydrates rather than refined carbohydrates whenever possible.

14

## *Eat the rainbow*

The word ***phytochemical*** comes from the Greek word *phyto*, which means plant. Phytochemicals are naturally occurring, health-promoting chemicals that are found only in plants. It is easy to recognize the presence of phytochemicals in plants because they are responsible for giving plants their beautiful colors.



## Plants contain tens of thousands of phytonutrients

There are *thousands and thousands* of phytonutrients found in plants. For instance, you may be familiar with a carotenoid called beta-carotene, the pigment that gives a carrot its orange color. But did you know that beta-carotene is one of over six hundred different carotenoids? This family of antioxidants also includes:

- alpha-carotene
- lycopene
- lutein
- zeaxanthin
- beta-cryptoxanthin

Beyond the carotenoids, there are phenolics (e.g., flavonoids and tannins), alkaloids, isothiocyanates, indoles and allylic sulfur compounds. I point this out to give you an appreciation of the vast array of phytonutrients in your food and to demonstrate why taking a vitamin supplement with only one or two of these phytonutrients is not sufficient.

## Benefits of phytochemicals

Eating a variety of colorful phytochemical-rich fruits and vegetables is associated with a **lower risk of cancer and heart disease**. Phytochemicals may function as **antioxidants, protect and regenerate essential nutrients**, and work to **deactivate cancer-causing substances**, such as free radicals. They also have **antifungal** and **antimicrobial** properties.

## Another reason to eat whole foods

Phytochemicals, vitamins, minerals, and fiber work *synergistically* in whole foods to promote health and lower disease risk. For this reason, it is best to obtain phytochemicals from whole foods, such as fruits and vegetables, rather than from supplements.

## Aim for 5 colors

Think of the rainbow when you are planning your meal. Aim for at least five different colors at each meal: Red, orange, yellow, green, blue, brown, purple and white (as long as it's a white vegetable and not white flour. And Fruity Loopy Cereal O's don't count, either!)



---

## Photosynthesis

---

Plants have the unique ability to transform sunlight into stored energy. In this process, called photosynthesis, specialized plant cells take molecules of carbon dioxide and water and turn them into carbohydrates.

### **Hemoglobin and chlorophyll are nearly identical**

Hemoglobin is the portion of your red blood cells that carries oxygen to all the cells of your body.

Chlorophyll is the part of plant cells that manufactures energy (carbohydrates). These two molecules are almost identical, except hemoglobin has an iron molecule in its center, and chlorophyll has a magnesium molecule in its center. To me, this indicates a wonderful harmony between the animal world and the plant world.

Magnesium is found in green vegetables (chlorophyll=green), nuts, seeds, legumes, and unprocessed grains.

---

## Mix your greens

It is important to **vary your consumption of leafy green vegetables**. For one, this keeps you from getting tired of the same old greens every day. Additionally, eating a wide number of greens provides you with the rich variety of phytochemicals, vitamins, and minerals found in the different plants. And finally, it is possible to get too much of a good thing. I point this out because some leafy greens contain high amounts of oxalic acid or oxalates.

**Oxalates** are naturally occurring compounds that decrease absorption of calcium, iron and magnesium and may lead to the formation of kidney stones in susceptible individuals. The three leafy greens with the highest oxalate content are *spinach*, *Swiss chard*, and *beet greens*.

I'm not saying you should not eat spinach, of course; you just shouldn't eat it every day. **Rotate your greens** and enjoy a wide variety of these nutrient-rich foods. Leafy greens are excellent sources of iron, calcium, magnesium, potassium, dietary fiber, beta-carotene, folate, and vitamin K. They also provide cancer-fighting flavonoids and carotenoids as well as cataract-preventing lutein and zeaxanthin.

### The best leafy greens

In my opinion, one of the **very best greens is kale**. And there are several varieties of kale, including green kale, red kale, and my personal favorite, lacinato kale. Other low to medium-oxalate greens include bok choy, dandelion greens, mustard greens (which are too peppery for green smoothies, but excellent when steamed), and collard greens.

All leafy greens are good. They are true nutrition powerhouses. My point is that 1) you should rotate your greens as much as possible and 2) *any* greens are better than no greens!



## Oxalate content of greens

### High-oxalate foods:

- spinach
- swiss chard
- beet greens

### Low to medium-oxalate foods:

- kale
- collard greens
- bok choy
- dandelion greens
- mustard greens

## Super-Omega Sauce Recipe

This sauce is my secret to palatable greens. I make it nearly every morning and serve it over steamed kale or other leafy greens. It takes minutes to prepare, contains nearly a full day's supply of omega-3 fats, and tastes delicious on steamed leafy greens, broccoli, cauliflower and Brussels sprouts. If you think you don't like leafy greens, try topping them with this sauce, and see if you don't become a huge fan of leafy green vegetables!

Wash your vegetables and put them in the steamer. In the time it takes to steam the veggies, you can make this sauce.

### Super-Omega Sauce

1 Tablespoon ground flax seeds

1/8 teaspoon chia seeds

1/2 tablespoon nutritional yeast

1/4 teaspoon Bragg's Liquid Aminos

2-3 tablespoons water, depending on desired thickness

**Method:** Place all ingredients in a small bowl. Blend with a spoon. Serve immediately over steamed greens.

**Note:** You can substitute 1 tablespoon **hemp seeds** for the flax seeds. Reduce water to 1 tablespoon and prepare as above.



16

## *Eat a variety of plant foods*

In addition to eating a wide variety of greens, you should also eat a wide variety of plant foods in general. There are countless health benefits from the consumption of fruits and vegetables. Some of these include: lowering the risk of developing cancers, cardiovascular disease, cataracts, age-related macular degeneration, diabetes and central neurodegenerative diseases.

Eating a wide variety of plant foods is both fun and nutritious. Challenge yourself to try new foods and discover new favorites along the way. This prevents food boredom from setting in, ensures an adequate intake of essential nutrients, and adds to your dining experience.

### **Magnesium**

New research from Brigham and Women's Hospital and Harvard Medical School says increased intakes of magnesium-rich foods are associated with a reduced risk of sudden cardiac death.

Good dietary sources of magnesium include green, leafy vegetables, starches, grains and nuts.



17

## *Eat for strong bones*

***Here's an interesting fact:*** the countries with the **highest dairy intake** (including the US, Sweden, and England) have the **highest rates of hip fractures and osteoporosis**.

On the other hand, countries with the **lowest consumption of dairy** (including China and Japan) have the **lowest rates of hip fractures and osteoporosis**.

---

## Get your calcium from plants

---

You can meet your calcium needs by eating leafy green vegetables and beans. If you are looking for a boost, you will find plenty in fortified orange juice and fortified non-dairy milks. According to the US Institute of Medicine, the amount of calcium needed ranges, based on age, from 700 to 1,300 milligrams per day.

### Calcium absorption

*While there is somewhat less calcium in broccoli than in milk, the absorption fraction—the percentage that your body can actually use—is higher for broccoli and nearly all other greens than for milk. There is one exception: Spinach is high in calcium, but the absorption fraction is very low.*

~ Neal Barnard, MD

---

### High intake of animal protein leads to bone loss

**High intake of animal protein is also associated with greater bone loss.** This is because consumption of animal protein creates an acid load in the blood. When protein, which is made up of amino acids, is digested, the amino acids lower the pH of the blood. The body operates within a very narrow pH range, and will neutralize the acidic load by pulling calcium from the bones. Several population studies show populations that eat diets high in animal protein have greater rates of osteoporosis.

### Benefits of leafy greens

Leafy green vegetables are high in minerals such as calcium, magnesium, and potassium. Leafy greens help the blood remain slightly alkaline, while also providing sufficient calcium to prevent osteoporosis.

18

## *Take supplements only as needed*

Eating a variety of whole foods on a plant-based diet enables you to obtain all of the nutrients that you need for health and vitality. The two possible exceptions are **vitamin B12** and **vitamin D**.

### **Vitamin B12**

Vitamin B12 is a water-soluble vitamin that is important for metabolism in every cell of the body. It helps in the production of red blood cells and in the maintenance of the central nervous system. It is critically important to have a reliable source of Vitamin B12 in the diet because Vitamin B12 deficiency can potentially cause severe and irreversible damage to the brain and nervous system. Vitamin B12 can be obtained by taking supplements or eating fortified breakfast cereals or fortified non-dairy milk. The recommended daily intake is 10 micrograms. Another option is to take a large dose (2,000 mcg) of B12 sublingually (under the tongue) once a week.





## Science Alert!

### Vitamin D supplements

There are two forms of vitamin D supplements. Vitamin D3 (cholecalciferol comes from animal sources, such as fatty fish or even sheep's wool!) and Vitamin D2 (ergocalciferol) is vegan and usually obtained from yeast. Both forms of vitamin D have been shown to be equally effective in maintaining circulating concentrations of vitamin D (25-hydroxyvitamin D) in the blood.

### Vitamin D

Vitamin D is actually a hormone that is created by the action of sunlight on the skin. It is converted to its active form as it passes through the liver and kidneys. Vitamin D helps the body absorb calcium and also regulates the concentration of calcium and phosphorus in the bloodstream. It plays a vital role in the production and maintenance of healthy bones and teeth. Ongoing research continues to demonstrate the important role of Vitamin D in a variety of conditions. For instance, low vitamin D levels have been linked with cancer, multiple sclerosis, fibromyalgia, rheumatoid arthritis, and diabetes.

If you do not get regular sun exposure, you may need to take Vitamin D supplements. Recommendations of optimal intake vary. The latest findings from the US Institute of Medicine suggest most Americans and Canadians up to age 70 need no more than 600 international units (IUs) of vitamin D per day to maintain health, and those 71 and older may need as much as 800 IUs. This study states 4000 IU as the maximum upper daily intake level.



## Other nutrients to be aware of

### Iron

Iron forms the central portion of the hemoglobin molecule, which carries oxygen in the blood. It is important to consume adequate iron to prevent iron-deficient anemia.

Dark leafy greens and beans are excellent sources of dietary iron. These iron-rich foods contain iron in a special form called non-heme iron. Your body is able to easily absorb this form when it needs more iron. It can also let this form of iron pass harmlessly out of the body when you have all the iron you need.

You can increase the amount of non-heme iron absorption by eating vitamin C-rich foods at the same meal that you eat foods that are high in iron. For instance, 25 mg of vitamin C doubles the amount of iron absorbed; 50 mg of vitamin C increases iron absorption 3-6 times. On the other hand, certain tannin-containing foods, including coffee and tea, reduce iron absorption. These items should not be consumed at the same time as meals that are high in iron.

## **Zinc**

Zinc is an important trace mineral needed for the proper functioning of the body's immune system. It plays a role in wound healing, cell division, cell growth, and the breakdown of carbohydrates. It is also required for the senses of taste and smell.

Zinc is found in legumes, seeds, nuts and whole grains. Soaking nuts, seeds and whole grains for a few hours significantly increases the amount of zinc we are able to absorb from these foods.

## **Iodine**

Iodine is a trace mineral needed for the production of thyroid hormone. It is important to make sure you have a reliable source of iodine in your diet. Iodized table salt is the primary source of iodine in a Western diet. Sea vegetables (seaweed) are another good source. If you are not consuming table salt or seaweed, you may need to supplement. The recommended daily allowance is 150 mcg.

19

## *Don't count calories*

Counting calories is time consuming, ineffective, often inaccurate, and completely unnecessary.

When you eat a whole-food, no-added oil, plant-centered diet, you'll be eating real foods that are nutrient-dense and fiber-rich. You won't add oil to your food, and you'll limit your seeds and nuts to about 1 ounce/day. Because of the very nature of the plan, you will likely get full before you can overeat. You do not need to keep track of your calories. In fact, you do not need to keep track of any macronutrients or micronutrients (other than Vitamin B12 and Vitamin D).



## Remember the Healthy-food Pyramid

Simply follow the suggestions in the Healthy-Food pyramid and your body should find its optimal weight. Remember, there are 5 food groups, with a simple 1-2-3-4-5 number of recommended daily servings:

- 1 serving/day Nuts and Seeds*
- 2 servings/day Legumes*
- 3 servings/day Fruit*
- 4 servings/day Vegetables*
- 5 servings/day Whole Grains*



## Getting enough sleep aids in weight control

Getting adequate sleep can decrease your appetite. This is due to the fact that sleep debt increases blood levels of the appetite-stimulating hormone ghrelin and reduces levels of satiety-causing leptin. Try to get enough sleep so that you feel rested, refreshed and less hungry.

## Know your BMI

### How to determine your BMI

Simply visit <http://www.nhlbisupport.com/bmi/> and plug in your height in inches and your weight in pounds.

BMI figures

- *Underweight = <18.5*
- *Normal weight = 18.5–24.9*
- *Overweight = 25–29.9*
- *Obesity = BMI of 30 or greater*

One of the easiest ways to assess your fitness is to measure your body mass index (BMI). This number compares your height to your weight and can be used to measure your body fat and health risk.

A high BMI (body weight in kilograms/height in meters squared) is associated with increased mortality from cardiovascular disease and certain cancers. A recent study published concluded that in white adults, overweight and obesity (and possibly underweight) are associated with increased all-cause mortality. The lowest mortality is generally associated with a BMI of 20.0 to 24.9.

### Exercise

Eating a whole-food, plant-based diet is an excellent way to lower your BMI. Another way to lower your BMI is to exercise. Find something you love and commit to doing it 4-5 times/week. Get your heart pumping and blood flowing. Move it!

21

## *Drink non-dairy milk*

There are several delicious non-dairy milks to choose from. Experiment with different types until you discover one or two that you love. Some versions of non-dairy milk are lightly sweetened, while others are not. I prefer the sweetened versions on breakfast cereal and the non-sweetened versions for use in recipes such as mashed potatoes and salad dressings. Some non-dairy milks are fortified with calcium, vitamin A and vitamin D, while others are unfortified. Choose one that best meets your needs.

### **Examples of non-dairy milk include:**

- Soy milk
- Almond milk
- Rice milk
- Hazelnut milk
- Hemp milk
- Oat milk

---

## Make your own nut milk

---

You can easily make your own almond milk by adding 1 cup of almonds to 4 cups of purified water and whirling them in a blender. Add 1-2 teaspoons of date sugar, a splash of vanilla extract, a dash of salt and whirl again. Strain\* through a cheesecloth mesh (or clean, unused paint strainer from the hardware store). Store in a large glass jar or pitcher with a tight-fitting lid. Stir or shake well before using. Use immediately or store in refrigerator for up to two days.

This recipe works well with a variety of nuts, e.g., pistachios, pecans, sunflower seeds. Have fun trying different blends and see which ones you enjoy most!

*\*You don't have to strain the nut milk. You'll get a much thicker product, but you will also be getting all of the fiber and phytonutrients of the nuts.*

---



22

## *Eat your breakfast*



Eating a nutritious breakfast is one of the best things you can do to start your day off on a positive note. After several hours of overnight fasting, it is important to eat in order to provide energy for your brain and the rest of your body. A good breakfast sets the foundation for healthy eating for the rest of the day and offers many health advantages. For instance, a recent study showed that eating whole-grain breakfast cereals at least seven times per week was associated with a lower risk of heart failure. Another study found that people who ate breakfast weighed less than people who skipped breakfast. And, finally, eating breakfast has been shown to improve memory function.

Eating breakfast does not have to be complicated. For example, choose a whole-grain cereal that you love, toss in some fresh berries and top with non-dairy milk. Done! Adding fruit to your breakfast is a terrific way to boost your vitamin C intake, which helps your body absorb iron.

### Discover green smoothies

One of the greatest breakfast ideas to come down the pike in recent memory is the invention of the green smoothie. A green smoothie is a fruit smoothie made with non-dairy milk or water and handfuls of *leafy greens*! The addition of antioxidant-rich spinach or kale or beet greens or any other greens makes the traditional smoothie a true nutritional powerhouse.

---

### Basic Green Power Smoothie

---

Makes 1 hearty serving.

- *1 cup almond milk, soymilk, hemp milk, or other non-dairy milk*
- *2 cups spinach (later you should mix it up with Swiss chard, kale, bok choy, collard greens, dandelion greens and/or beet greens)*
- *1 ripe banana*
- *1/2 cup blueberries*
- *2 teaspoons whole flaxseed (optional)*
- *4-5 ice cubes*

Toss all ingredients into a high-speed blender, whirl for a couple minutes, and pour into a tall glass.

---



23

## *Choose organic*

Organic foods have not been treated with synthetic herbicides, pesticides or fertilizers. They **taste better**, are **better for the environment**, and are also **safer for the farmers** involved in growing our food. Eating organic foods is one important way to **decrease the toxic load** on your body, both in the short term and over a lifetime.

### **Biomagnification and Bioaccumulation of toxins**

Pesticides, herbicides and other fat-soluble pollutants increase in concentration as you go up the food chain. This process is called *biomagnification*. These toxins also accumulate in the body over time (*bioaccumulation*). Fat-soluble toxins are stored in the fat cells of animals. In fact, one measure of toxins in humans is to test levels of particular pollutants in human breast milk, since the breast milk contains a high percentage of fat.

### **The Dirty Dozen**

I realize it is not always possible to buy organic produce. Fortunately, there are some fruits and vegetables that do not have to be organic to be acceptable. The [Environmental Working Group](#) has identified the top 12 vegetables and fruits most likely to have the highest pesticide residues, as well as 15 choices that typically carry a lower pesticide load.

**The Dirty Dozen - Buy Organic:**

Apples, Bell peppers, Blueberries, Celery, Cherries, Grapes, Kale, Nectarines, Peaches, Potatoes, Spinach, Strawberries

**The Clean 15 - OK to Buy Non-Organic:**

Asparagus, Avocados, Cabbage, Cantaloupe, Eggplant, Grapefruit, Honeydew, Kiwifruit, Mangoes, Onions, Peas, Pineapples, Sweet corn, Sweet potatoes, Watermelon

**Farmers' Markets**

Farmers' markets are a wonderful source of fresh, often organic, locally grown produce. To find a farmers' market in your area, check out: <http://www.ams.usda.gov/AMSV1.0/farmersmarkets>



## *Consider anti-angiogenic foods*

Anti-angiogenic foods have been found to stop the spread of cancer. These foods contain angiogenesis inhibitors that stop the cancer from spreading by preventing tumors from creating new blood vessels. Without new blood vessels, the tumors cannot survive.

### Anti-Angiogenic Foods

Green Tea	Dark Chocolate	Soy Beans
Artichokes	Tomatoes	Strawberries
Blackberries	Raspberries	Blueberries
Cranberries	Garlic	Apple
Pineapple	Cherries	Oranges
Grapefruit	Lemons	Red Grapes
Red Wine	Kale	Broccoli
Cauliflower	Brussels Sprouts	Bok Choy
Ginseng	Licorice	Lavender
Turmeric	Maitake Mushroom	Ginger
Parsley	Pumpkin	Olive Oil
Grape Seed Oil	Nutmeg	compiled by: Christianna Pierce, MA, RD

25

## *Drink green tea*

Green tea has been shown to have a **host of health benefits**. It contains polyphenolic compounds called catechins, which have anti-oxidative properties and may play a role in **preventing cancer and cardiovascular disease**. Green tea has been shown to **stabilize blood sugar, improve cholesterol levels, increase mental relaxation, and prevent tooth decay**.

A new study shows drinking green tea with a meal provides a greater **sense of satiety** than the same meal provided with water. In other words, you may feel fuller if you drink green tea with your meal, thereby eating less.

**Note:** Soymilk has been shown to block the benefits of the phytonutrients in green tea. So, it's best to drink green tea without soymilk.





---

## **Green tea and black tea come from the same plant**

---

All tea comes from the same plant, *Camellia sinensis*, which is a relative of the Camellia plant. Green tea is the unfermented form of black tea. Many of the healthy polyphenols in green tea are destroyed in the oxidation process of making black tea. If you have a choice, opt for green tea over black tea.

### **Matcha Tea**

Matcha tea is a powdered version of the whole green tea leaf. I draw the analogy that matcha tea is to green tea as whole wheat flour is to wheat berries. In this regard, matcha contains even more antioxidants than brewed green tea, as well as fiber and chlorophyll.

---

26

## *Plan ahead for travel*



Travel can present challenges when it comes to healthy eating. The best solution is to be prepared with your own snacks. Good suggestions include:

- Hummus, romaine lettuce and pita-bread sandwich. Pita bread travels well without getting mushy, and the hummus is a good source of protein to keep your energy up.
- Apple
- Carrot and celery sticks
- Banana
- Raw, unsalted almonds



## Airplane Travel

When traveling by air, it is best to avoid the salty foods (e.g., peanuts, crackers, pretzels, and chips) handed out in the plane. Salt will make you retain water and chances are good that you will bloat enough as it is due to changes in air pressure.

Meanwhile, hydrate! You should try to drink 8 ounces of water for every hour of air travel. Drinking water can help prevent puffiness, and you will get the added benefit of stretching your legs as you make your way to and from the restroom.

**HappyCow.net** is a great resource for locating vegan-friendly, plant-based restaurants in different cities.

## Try new foods

As you start eating a plant-based diet, you are beginning a journey of discovery. You will be introduced to many interesting foods you may have never seen, let alone eaten, before. This can be a wonderful time of exploration and experimentation.

***I encourage you to have fun with this aspect of eating.*** Try new foods and new recipes and allow yourself to really embrace the wonderful variety of plants available to you. By doing so, you will cover your nutritional requirements and you will never grow weary of a plant-based diet.

### Join a CSA

A great way to try new foods is to join a CSA (Consumer Supported Agriculture). The CSA delivers local, seasonal food to you on a weekly basis. This exposes you to new vegetables you may have never seen before.

I'll never forget the first time my CSA delivery included a celeriac root. It looked like a strange, brown knobby ball with all sorts of curly roots coming off of it. I discovered that it tastes like celery and offers a delicious flavor to soups and stews. It has become a staple in my winter menus. All thanks to the CSA!

**To find a CSA near you, check out the Local Harvest Website: <http://www.localharvest.org/csa/>**

28

## *Appreciate the global impact of your food choices*

Following a plant-based diet is one of the single most important things you can do to fight global warming, prevent worker injury, and protect the lives of animals.

### **Animal protein uses more fossil fuel than plant protein**

It takes more than 11 times as much fossil fuel to make one calorie from animal protein as it does to make one calorie from plant protein.





### **Animal farming causes more greenhouse gases than cars**

According to a 2006 United Nations report, livestock are responsible for 18% of greenhouse gas emissions, a bigger share than all the cars, trucks, airplanes and ships in the world, combined.

### **Killing animals is dangerous (not to mention cruel) work**

Human Rights watch calls working in a slaughterhouse “the most dangerous factory job in America.” The US Department of Labor’s Bureau of Labor Statistics figures show that nearly one in three slaughterhouse workers suffers from illness or injury every year, compared to one in 10 workers in other manufacturing jobs.

## *Understand your motivation*

Before adopting a new way of eating, it is very helpful to **pause and think about your motivation**. I mention this because there will be times when you are tempted to choose unhealthy foods, and in those moments of snap decision, it is helpful to remember why you are making these changes in the first place. Behavioral scientists know that having a solid motivation for change is a good way to ensure success.

So, go ahead, take a moment and ponder your reasons for changing your diet. If it's helpful, consider writing them down. **The clearer your motivation, the more likely you will be to stick with your healthy eating plan.**

### **Common motivations for following a plant-centered diet**

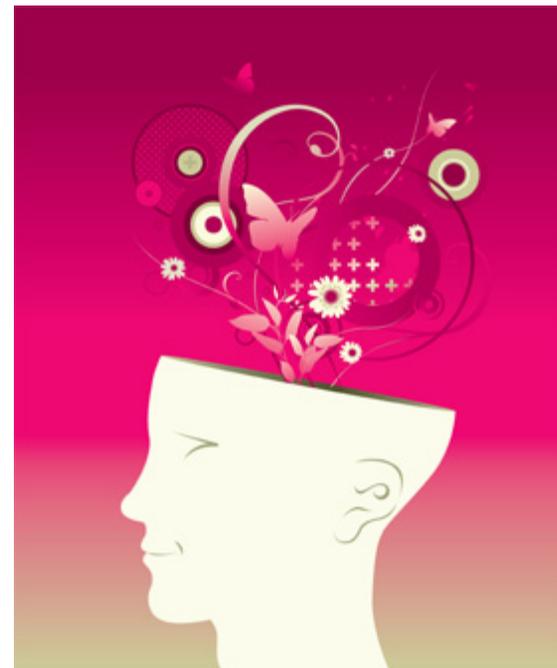
1. To lose weight
2. To control blood sugar and/or get off of blood glucose medication
3. To lower cholesterol and/or to get off of cholesterol-lowering medication
4. To feel more energetic
5. To be alive to enjoy future grandchildren (this was one of President Bill Clinton's motivations)
6. To prevent cancer
7. To support animal well-being
8. To minimize your carbon footprint

## *Define and visualize success*

A helpful way to maintain your motivation is to **visualize your success**. Imagine yourself looking and feeling exactly like you want to. See yourself achieving your goals and feeling terrific. If you are trying to lose weight, you might visualize your perfect new outfit. In your mind's eye, see how terrific you look and imagine how good it feels to wear such a beautiful outfit in total comfort and delight.

If your goal is to get off of a particular medication, you might visualize yourself watching your physician tear up your prescription for that medicine. Feel the joy and sense of accomplishment this creates.

If you are thinking way into the future toward possible grandchildren, imagine yourself at a park, pushing a sweet little grandchild on a swing. Allow yourself to feel the joy and love you would be experiencing. **Feel it in your very bones, and enjoy the feeling.**



### Sidestep temptation

And in those moments when you feel tempted to go off the plan, try to stop for a moment and visualize or recapture what it was that was motivating you to eat healthy in the first place. Try to recapture that sensation of joy and delight, and recall how wonderful you feel in your imagined scenario. Pausing and remembering may be just what it takes to help you avoid eating something you may later regret.





31

## *Balance cost and convenience*

There is a **trade-off between ease of preparation and cost**. The more canned and frozen foods you use, the higher the cost but the greater the convenience. Conversely, cooking beans and rice from scratch, for example, really lowers the cost per serving, but takes more time than using canned products. Everybody has a different optimal balance between cost and convenience. With a little experimentation, you will quickly find what works best within your time and budgetary constraints.

## Try This:

The use of canned and frozen goods can dramatically cut down on meal preparation time. One of my favorite convenience foods is frozen brown rice. Readily available in the frozen food section of most markets, frozen brown rice comes in portion-controlled, ready-to-microwave plastic bags. It takes three minutes to cook and can be ready before your veggies are finished steaming!



## Kitchen gadgets

Eating meals at home can really minimize your food bill. A few kitchen gadgets and appliances are especially useful in the plant-based kitchen. They include:

- *sharp, high-quality knife*
- *cutting board*
- *glass jars with tight-fitting lids*
- *colander*
- *non-stick griddle*
- *non-stick sauté pan*
- *lemon juicer*
- *vegetable steamer*
- *high-speed blender*
- *food processor*
- *electric pressure cooker*

32

## *Appreciate the paradox of choice*



We often think that the freedom to choose is the ultimate luxury and that the more choices we have, the happier we will be. In reality, beyond a certain point, ***we actually are happier when we have some limits to our choices.***

This is particularly relevant when it comes to diet. By setting rules for yourself, your life is greatly simplified. For instance, when you go grocery shopping, you don't have to agonize over whether the free-range organic lean chicken or the organic low-fat cottage cheese is a better choice. Because the answer is: *neither*.

When you eat a whole-food, plant-based diet, you automatically limit the majority of unhealthy food choices. This allows you to choose healthy fruits, vegetables, grains and nuts without having an internal dialogue about the pros and cons of each item you put into your shopping basket or order from a menu.

### The Paradox of Choice

These ideas are thoughtfully examined in Barry Schwartz's book, *The Paradox of Choice: Why More is Less*. Schwartz contends that we make a mistake when we equate liberty directly with choice. We do not increase freedom by increasing the number of options available. Rather, by limiting our choices, "we make the most of our freedoms by learning to make good choices about the things that matter, while at the same time unburdening ourselves from too much concern about the things that don't."

In other words, we free our minds from the tyranny of small decisions and have time to consider the big things in greater depth.



## Limitations are not deprivations

I think the mistake many people make is to assume that by giving things up, they will feel deprived. I believe the opposite to be true. For example, when I counsel people on making plant-based dietary choices, I emphasize that there may be some initial discomfort in giving up meat, poultry, fish, and dairy. But after a few days or weeks, the initial discomfort is replaced by a heightened feeling of health and well-being. The initial feeling of deprivation is replaced by feelings of contentment and satisfaction.

In short, *limitations* are not the same as *deprivations*.

So, embrace the healthy limitations of plant-centered eating, and use the extra time you save to do something fun or worthwhile!



## *Be aware of the “pleasure trap”*

Evolutionary psychology demonstrates that we are motivated to seek pleasure and avoid pain with the least amount of energy expenditure. This behavior served us well when food was scarce and death by starvation was a very real possibility.

In modern America, we find ourselves faced with very different circumstances. We can eat a high-fat, salty, and sweet meal (e.g., a big fat hamburger, side of fries and super-sized, cardio-plugging milkshake) without even

stepping out of the car. In other words, we can seek pleasure (tasty food, at least to some) and avoid pain (end the feeling of hunger) with a minimal expenditure of energy.

But, and here is the big BUT, ***just because we can do something doesn't mean we should***. The behavior strategies that served us well in bygone times do not serve us well today. We need to find ways to overcome our tendency to eat calorically dense food with the minimal expenditure of energy. Eating a healthy, plant-based diet is one good way to do this.

### **Book suggestion**

*The Pleasure Trap* by Douglas J. Lisle and Alan Goldhamer is a fascinating book that looks at this concept in more detail.

34

## *Chew your food thoroughly*

The digestive process begins in your mouth when your food is mixed with the digestive enzymes in your saliva. If you gulp your food too quickly, you skip this important step of digestion, resulting in less satisfaction, more calories, and, most likely, indigestion. Chewing food thoroughly also takes time, and since it takes about 20 minutes for your brain to register a full stomach, this **helps you eat less and feel fuller.**

### **Amylase**

Amylase is a starch-digesting enzyme found in the saliva and in pancreatic juice. Amylase breaks apart the alpha-linkages between glucose molecules, freeing up the glucose to be used by the cells of the body.



Here is an easy way to picture this process: *Think of the glucose molecules in starch as the individual cars in a long train.* The alpha-linkages between the glucose molecules are like the connectors between train cars. Amylase is like a giant wrench that uncouples the individual cars (or glucose molecules) from each other.

Interestingly, people in populations with a high-starch diet tend to have more amylase genes than those with low-starch diets. And chimpanzees have very few amylase genes. It is quite possible that adopting a starch-based diet was a significant event in human evolution.

---

**Fast food is designed  
to slide down easily**

---

Fast food has been specifically designed to require less chewing than unprocessed food so that it can be chewed and swallowed more quickly. This results in the consumption of more calories with less awareness. And, I might add, less satisfaction. What is the solution? Eating real food with awareness.

---

35

## *Eat with mindfulness and gratitude*

**Eating with mindfulness and gratitude** can help you feel connected to all the labor and effort involved in getting your food to your plate. This, in turn, can help you appreciate your good fortune in being able to eat healthy, whole food when so much of the world goes hungry. Eating mindfully also allows you to slow down and savor your food, increasing the enjoyment of the meal and helping you realize when you have had enough, making it less likely that you will overeat.





---

### **Try this: Eat with all of your senses**

---

Start by looking at your food and really noticing the color, texture and shape. Then, consider closing your eyes for a moment, especially at the first bite, to focus your awareness on the taste and smells of your food. Allow yourself to name the flavors you are experiencing, (salty, chocolaty, sage-like, tangy, etc.).

Notice the aroma of the food and let any associations come to your mind. The part of the brain that processes smells is the same area that processes memories. Next, notice any sound of your food. Is it crunchy? Crisp?

Finally, notice the texture and temperature of your food. Is it lumpy? Smooth? Granulated? Brittle? Mushy? Hot? Cold? Lukewarm?

By really paying attention to your food, your enjoyment of your meal will dramatically increase.

---

36

*Eat when you're hungry,  
stop when you're full*



It is mainly the **volume** of food, rather than number of calories, that determines how full you feel. Healthy foods such as whole grains, fruits and vegetables are naturally high in fiber and water and low in fat, so you feel full before you can eat too many calories.

**Foods with higher water and fiber content tend to make you feel full faster.** Having soup as a first course results in fewer total calories eaten at that meal. This was demonstrated in a 2007 study at Penn State University. When participants in the study ate a first course of soup before a lunch entrée, they reduced their total calorie intake at lunch (soup + entrée) by 20%, compared to when they did not eat soup.



The Okinawan people take this concept one step further and recommend stopping *before* you are full. This principle, referred to as ***Hara Hachi Bu***, means “eat until 80% full.” By eating mindfully, and stopping when you are approaching fullness, you are much less likely to overeat and will consume fewer calories overall.

---

### Drink plenty of water

---

Do not underestimate the benefits of pure, simple water. A recent study at the University of Virginia compared the weight loss of 48 people. Half of the participants drank two cups of water prior to their meals and the other participants did not. Over the course of 12 weeks, participants who drank water before meals, three times per day, lost about 5 pounds more than dieters who did not increase their water intake. Water fills the stomach, contains zero calories, and also replaces other, high-caloric beverages.

It is essential to be well-hydrated on a daily basis. Drink approximately 8 glasses of water a day. Skip the sugary sodas altogether.

---



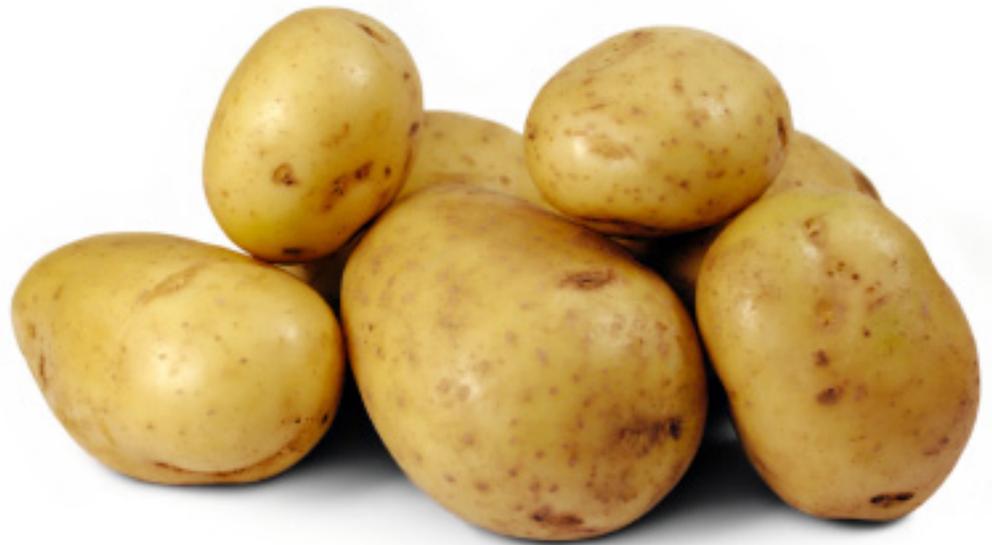
37

## *Eat with joy*

Following a plant-based diet is meant to be **joyful and life affirming**. You are choosing to eat this way in order to maximize your health and well being. It is a diet filled with bright colors, delicious food and wonderful variety. It is one the single most important choices you will ever make. And you get to make the choice approximately three times a day, seven days a week. Have fun! Try new recipes. Get involved with like-minded people. Search the web for interesting plant-based sites. Visit new restaurants. ***And eat with joy!***

# CONCLUSION

The food you eat literally turns into the cells of your body. Your cells form tissues—your tissues form organs—and all of these things go together to form *you*. To build a healthy body, you need to feed your cells the best foods possible. The changes you make will have results. Remember, ***small changes result in small results; big changes result in big results.*** I encourage you to jump in and start eating a plant-based diet. What have you got to lose, other than weight and disease?



As a logically-minded friend of mine (who has been following a plant-based diet for two months) recently concluded,

*There are plenty of studies indicating that there are serious health issues associated with consumption of dairy and meat. There are no studies that I know of showing negative health effects of a plant-based diet. It makes more sense to go with a plant-based diet to be sure. Now that I know I can get sufficient protein, calcium and basically everything I need from plants and whole foods, it makes more sense to eat this way.*

I could not have said it better myself.

So, please remember to follow the **Healthy Eating Rules:**

***Eat Whole Food. Mostly Starch. Only Plants.*** Find good health at the end of your fork. May you eat plants, be strong, and live long!

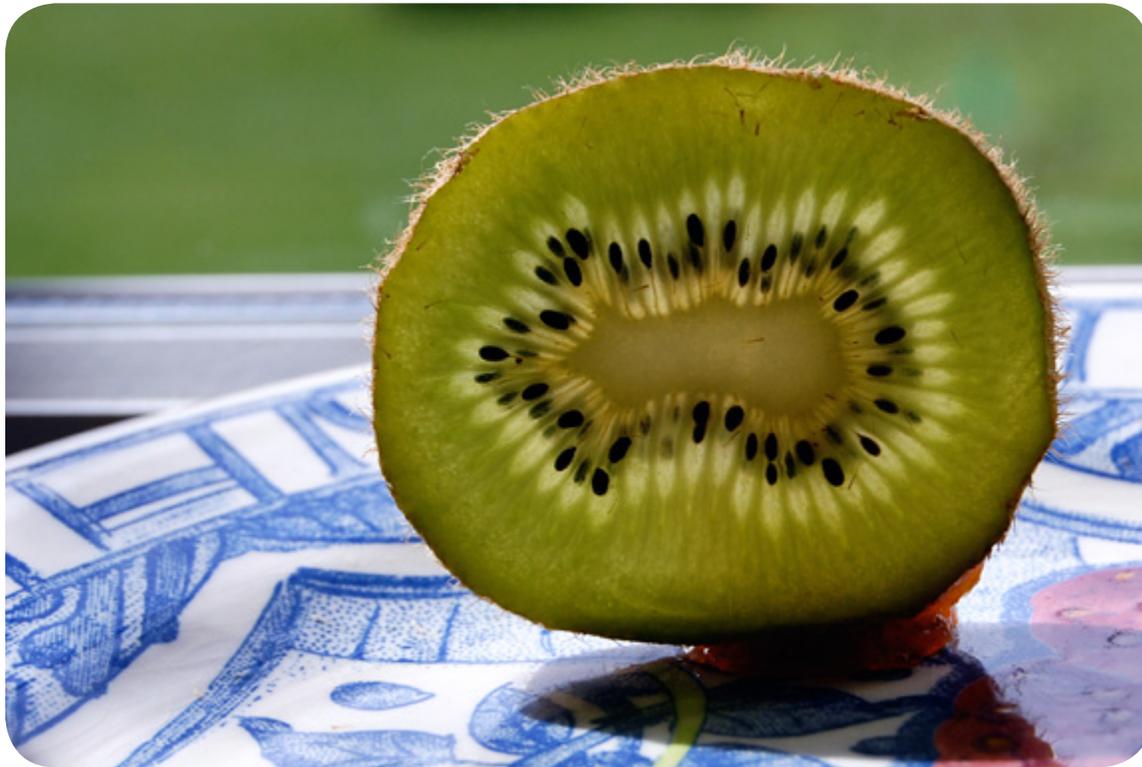
***If you have found this book useful,*** and have a friend or loved one who might benefit from reading it, please consider buying them a copy for their own use. ***Thank you.***

Finally, if you have any comments or questions, please visit my website, [elegantsimplelife.com](http://elegantsimplelife.com) or email me at [christianna@elegantsimplelife.com](mailto:christianna@elegantsimplelife.com). I'd love to hear from you!



*Chapter Three*

**HELPFUL RESOURCES**



# SUGGESTED READING

## Nutrition and Science Books

Barnard, Neal D. *Dr. Neal Barnard's Program for Reversing Diabetes: The Scientifically Proven System for Reversing Diabetes without Drugs*. New York: Rodale, 2007.

Campbell, T. Colin and Campbell, Thomas M. *The China Study*. Dallas, TX: BenBella Books, 2006.

Carr, Kris. *Crazy Sexy Diet*. Guilford, CT: Skirt!, 2011.

Davis, Brenda and Melina, Vesanto. *Becoming Vegan: The Complete Guide to Adopting a Healthy Plant-Based Diet*. Summertown, TN: Book Publishing Company, 2000.

DesMaisons, Kathleen. *Potatoes Not Prozac*. New York: Simon and Schuster, 2008.

Esselstyn, Caldwell B., Jr. *Prevent and Reverse Heart Disease: The Revolutionary, Scientifically Proven, Nutrition Based Cure*. New York: Penguin Group, 2007.

Kessler, David A. *The End of Overeating: Taking Control of the Insatiable American Appetite*. New York: Rodale, 2009.

Lisle, Douglas J. and Goldhamer, Alan. *The Pleasure Trap*. Summertown, TN: Healthy Living Publications, 2003.

McDougall, John A. and McDougall, Mary A. *The McDougall Plan*. Clinton, NJ: New Win Publishing, 1983.

Schwartz, Barry. *The Paradox of Choice: Why Less is More*. New York: Harper Perennial, 2005.

Servan-Schreiber, David. *Anticancer: A New Way of Life*. New York: Viking, 2008.

Spock, Benjamin and Needlman, Robert. *Dr. Spock's Baby and Child Care*, 8th edition. New York: Simon and Schuster, 2004.

Wurtman, Judith J. and Frusztajer, Nina T. *The Serotonin Power Diet*. New York: Rodale, 2006.

## Cookbooks

Esselstyn, Rip. *The Engine 2 Diet: The Texas Firefighter's 28-Day Save-Your-Life Plan that Lowers Cholesterol and Burns Away the Pounds*. New York: Wellness Central, 2009.

McDougall, John A. and McDougall, Mary A. *The McDougall Quick and Easy Cookbook*. New York: Plume, 1997.

Pierson, Joy and Potenza, Bart with Barbara Scott-Goodman. *The Candle Cafe Cookbook*. New York: Clarkson Potter, 2003.

Silverstone, Alicia. *The Kind Diet: A Simple Guide to Feeling Great, Losing Weight, and Saving the Planet*. New York: Rodale, 2009.

Stepaniak, Jo. *The Ultimate Uncheese Cookbook*. Summertown, TN: Book Publishing Company, 2003.

Wolff, Meg. *A Life in Balance: Delicious Plant-based Recipes for Optimal Health*. Rockport, ME: Down East Books, 2010.

## Web resources

### **EarthSave**

A California non-profit agency committed to serving individuals and families in need.

### **drmcdougall.com**

An information-packed website designed to answer your health-related questions.

### **Fat Free Vegan Kitchen**

This blog has delicious, plant-based recipes with minimal fat and sugar. The beautiful food photos are worth a look just for themselves. Whenever I am looking for a fat-free vegan recipe, I start here.

### **Happy Healthy Long Life**

This excellent blog is written by a medical librarian who does a fantastic job of explaining the latest plant-based, scientific research in very easy to understand terms.

### **drgreger.org**

Dr. Michael Greger has a delightful way of making science extremely memorable and fun. I highly recommend his annual "Latest in Clinical Nutrition" DVDs.

### **North American Vegan Society**

A non-profit educational group advocating healthy, compassionate and ecological living.

### **Northwest Veg**

A non-profit group in the Portland (OR)-Vancouver (WA) area dedicated to bringing awareness to the power of a veg lifestyle and helping support people in their transition toward making healthier, more sustainable & compassionate food choices.

### **Physicians Committee for Responsible Medicine**

A group of doctors and laypersons working together for compassionate and effective medical practice, research, and health promotion. Their [Vegetarian Starter Kit](#) is an excellent (free) resource.

### **T. Colin Campbell Foundation**

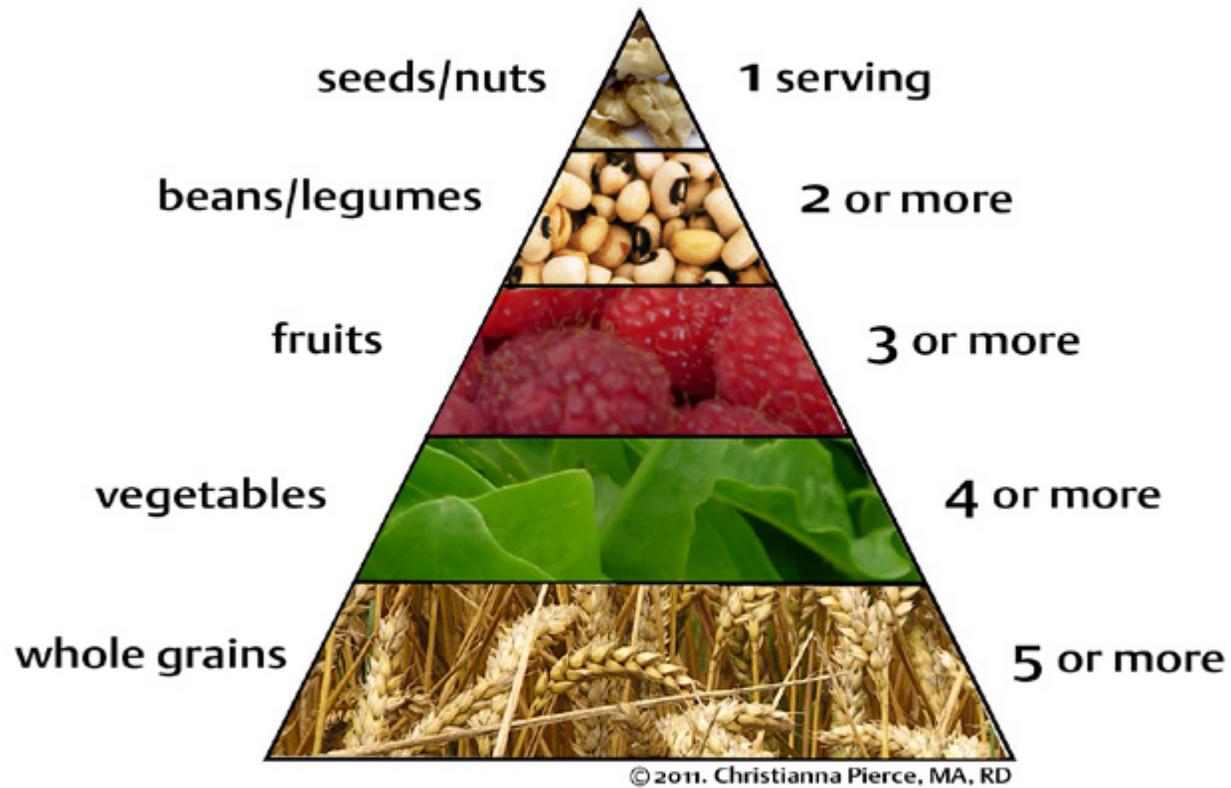
This is the educational non-profit organization of T. Colin Campbell, PhD, co-author of *The China Study*. Dr. Campbell is also the creator of the [e-Cornell Certificate Program in Plant-based Nutrition](#) that I completed and highly recommend.

### **The Vegan Society (located in the U.K.)**

An educational charity that provides information and guidance on various aspects of veganism, including to new and potential vegans, caterers, healthcare professionals, educators and the media.



# APPENDIX



***The healthy food pyramid***

# Anti-Angiogenic Foods

Green Tea	Dark Chocolate	Soy Beans
Artichokes	Tomatoes	Strawberries
Blackberries	Raspberries	Blueberries
Cranberries	Garlic	Apple
Pineapple	Cherries	Oranges
Grapefruit	Lemons	Red Grapes
Red Wine	Kale	Broccoli
Cauliflower	Brussels Sprouts	Bok Choy
Ginseng	Licorice	Lavender
Turmeric	Maitake Mushroom	Ginger
Parsley	Pumpkin	Olive Oil
Grape Seed Oil	Nutmeg	compiled by: Christianna Pierce, MA, RD

# CREDITS AND ACKNOWLEDGEMENTS

## *I want to sincerely thank:*

- my husband, **Chip**, for his unflagging humor, support and encouragement;
- our two sons, **Lee** and **Tad**, whom I have brought on this plant-based journey with a fair degree of skepticism, but ultimate support;
- my friend and writing partner, **Kevin**, who keeps my writing on topic and supplies me with bottomless cups of green tea;
- my sister, **Trisha**, for her perpetual optimism and enthusiastic interest in this project;
- my ever-patient and eagle-eyed editor, **Chris O'Byrne**, who took a misshapen heap and turned it into the book you now have before you;
- my stellar book designer, **Lynn Fang**, who worked her visual magic with layout and design;
- my wonderful proof-reader, **Cathy Fisher**, who has a knack for finding typos that is truly incredible;
- my virtual friends in the minimalist and vegan blogging communities, who help me feel connected to something greater than myself.

## ***Photo credits:***

Copyright © 2011 by Christianna Pierce: pages 2, 4, 7, 9, 10, 11, 15, 19, 22, 23, 24, 27, 29, 32, 38, 40, 42, 47, 53, 55, 58, 60, 70, 71, 73, 75, 76, 78, 87, 88, 91, 95, 96, 97, 98, 99, 102, 106, 107.

stock.exchng: p. 20, 48

iStockphoto: cover image; pages 5, 6, 12, 14, 17, 18, 26, 30 (adapted), 34, 36 (adapted), 46, 51, 57, 62, 64, 66, 67, 77, 79, 80, 82, 83, 85, 86, 89, 90, 93, 98, 100, 101.