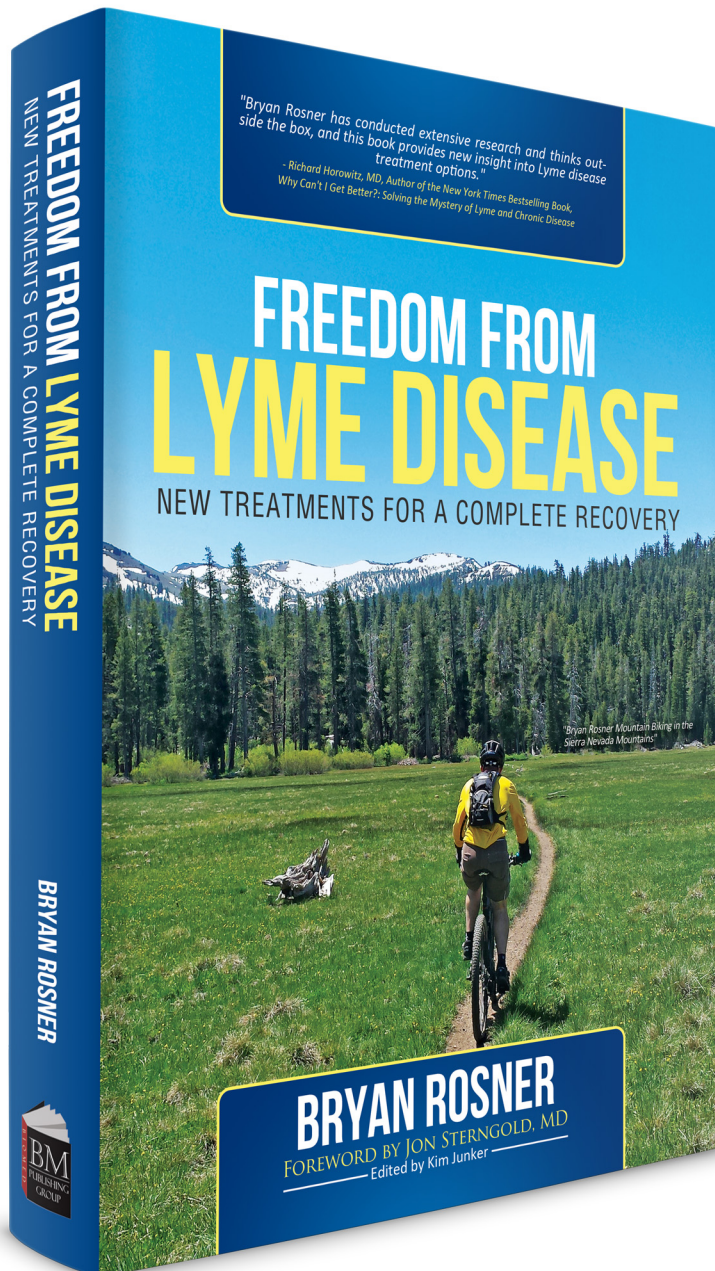


The following pages are a free excerpt from the book,
Freedom From Lyme Disease.

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Free Chapter: The Paleo Diet for Lyme
Disease & Other Nutrition Hacks

Chapter 4

The Paleo Diet for Lyme Disease (and Other Nutrition Hacks)

NOTE: Dietary information for Lyme disease sufferers is covered in many available books and resources. The information in this chapter highlights dietary lessons and key information which I personally have found to be interesting and useful, but the chapter is not intended as a complete discussion, nor is it intended as a one-size-fits-all approach. The correct diet for you will vary depending on your individual needs. Please consult your physician prior to making any changes to your current diet.

Why the Paleo Diet?

During my Lyme disease recovery, I experimented with many different ways of eating and noticed that each diet had big pros and big cons. Ultimately, most of the diets were too extreme. For example, veganism makes a lot of sense since vegans eat a nutrient-rich, fiber-rich, alkalizing diet which has countless health benefits. However, the vegan diet lacks many essential macronutrients which aid in Lyme disease recovery, such as saturated fats, cholesterol, and readily available protein. (In this chap-

ter, we will see why these nutrients are so important). Even vegetarianism, it turns out, is usually too extreme and doesn't provide the nutrients needed to power a recovery from chronic illness.

But let's not throw the baby out with the bathwater. Let's keep the benefits of eating a vegan diet without completely eliminating the other required macronutrients found in other diets. This logic is what guided my selection of an eating plan. I like to think that I've taken the best of many diets and combined them all into one. Only, I don't get to take credit for this kind of diet, as it wasn't really my idea. The diet is known as the Paleo Diet, and it's quite popular across America right now.

The fundamental premise of the Paleo Diet is that over the last 200 years, the human diet has changed more than it has in the previous 5,000 years due to the advent of agriculture and food processing technology. The Paleo Diet advocates eating a diet which predates these developments. Paleo proponents argue that our bodies aren't designed to handle these new modern food changes. While many people view the Paleo Diet as just another fad, it is far from that. In fact, it's one of the oldest diets on planet Earth (hence, it's name), as it advocates eating foods which are similar to what our ancestors consumed. The modern American diet, on the other hand, is composed of foods which are relatively new to humanity, including processed carbohydrates and excessive sugar. So, people need to be careful when talking about the Paleo Diet as a fad, as that is an inaccurate characterization.

There are different versions of the Paleo Diet, and I won't spend time explaining each one; instead, I'll talk about the modified version which I find to be most beneficial for Lyme disease sufferers. Paleo Diet experts may object to my description of the diet and tell me it isn't completely accurate; they would be correct. I don't advocate a strictly Paleo Diet, but instead, a version which makes sense for chronically ill people. Accordingly, my recommendations in this chapter will deviate somewhat from a strictly Paleo Diet.

Let's look at the Paleo Diet in more detail.

One of the basic rules to consider when understanding the Paleo Diet is to avoid foods which have a list of ingredients. Instead, the diet prefers whole, unprocessed foods. These are foods which are not modified from their original, natural state and which ancient humans could acquire and consume without the help of modern food processing technologies; hence, the name “paleo” as in “Paleolithic.” So, a bag of almonds is a good choice—only one “ingredient;” a bag of potato chips is a bad choice—multiple ingredients which have been processed. Foods chosen for the Paleo Diet should be readily available in nature and easily gathered and prepared by a person using minimal farming and technology. Cooking is acceptable because cooking can be accomplished with very primitive means.

The Paleo Diet also attempts to avoid dairy as well as many types of carbohydrates, including grains, beans, and potatoes. Processed carbohydrates are especially undesirable, so paleo eaters stay away from breads, pastries, desserts, etc. Sugars and processed carbohydrates are highly inflammatory and lead to significant exacerbations in Lyme disease symptoms. Since fruit can be found in its whole, unaltered form in nature, without the need for processing or agricultural cultivation, fruit is allowed in the Paleo Diet, although it should be consumed in moderation. More on this later.

We've talked a lot about what not to eat. What should we eat? The foods most important in the Paleo Diet include animal meat, fruits and vegetables, and nuts and seeds. Some types of dairy may be permissible if tolerated—we will talk about dairy more in the coming paragraphs.

As I mentioned earlier, some of my dietary recommendations aren't strictly in line with those of the Paleo Diet. Lyme disease sufferers have some unique needs, so we'll talk about how the diet meets these needs and

where it should be modified to account for Lyme-specific health challenges. For example, when the Paleo Diet is used for weight loss, which it often is, total daily carbohydrates are severely restricted. My version of the Paleo Diet for Lyme disease allows a higher level of carbohydrates to be consumed. As you formulate your own diet, remember this one, guiding principle: if a particular food makes you feel good, then eat it. Our bodies can offer us a lot of wisdom, and since each person's body is different, the best diet for you will be different than the best diet for me. The goal isn't to follow the diet in a rigid fashion, but instead, to use the parts of the diet which make sense for your individual biochemistry.

Also, I will focus on some of the more controversial aspects of the diet because these aspects are the ones which are most likely to confuse or divert potential adopters. If you keep up with what's going on in the modern study of nutrition, you'll know that there is a heated debate raging over much of what I discuss in this chapter. So, this chapter will explain my positions on these controversial topics and will provide the logic behind my positions.

And lastly, while weight loss isn't the primary goal of the information in this chapter, I do believe that obesity can be a huge obstacle in healing from any chronic illness, so the dietary objectives set forth here also take into consideration maintaining a healthy weight.

Fat and Protein: The Foundation of the Paleo Food Pyramid

While vegetables are a major part of the Paleo Diet foundation, most of the daily calories consumed will be derived from meat and healthy fats. More specifically, the foundation includes foods like poultry, eggs, butter, fish, coconut oil, and even red meat and bacon (in moderation). These items would make the bottom, or foundation, of the paleo food pyramid. You will notice that these foods are high in protein and fat, two nutrients which, despite popular opinion, provide tremendous benefits. For the

general population, protein and fat serve as very satiating foods, which leads to less hunger and less of a propensity to overeat. Furthermore, these foods avoid insulin and blood sugar spikes, which result from carbohydrate intake and which are associated with a plethora of health problems such as obesity, diabetes, cancer, insulin resistance, inflammation, hypoglycemia, and depression, just to name a few.

Putting fat and protein at the bottom of the food pyramid is a huge shift away from the traditional belief that complex carbohydrates should comprise the majority of our calories. However, new research debunks the theory that carbohydrates should be our primary food source; this is a flawed assumption for chronic illness and the general public alike. If you still think that fat makes you fat, you need to do some reading. Fat actually helps prevent you from getting fat, because it satiates you more effectively and keeps your blood sugar in a lower range, thus decreasing the level of insulin circulating in your blood. The food that makes you fat, instead, is refined carbohydrates. A detailed discussion of the physiology behind this statement is beyond the scope of this book; however, this is a critical point which you should research on your own if it is a new concept for you. I highly recommend reading the excellent writings of Dr. Joseph Mercola (www.drmercola.com).

For Lyme disease sufferers, fat and protein have special, specific benefits. This was a lesson that took me a long time to learn. For years, I tried avoiding fatty and high protein foods thinking, instead, that vegetables were the key to good health. It turns out that vegetables shouldn't actually be in competition with fats and proteins: both classes of foods are critical and indispensable. You run into problems when you create a false dichotomy and force yourself to favor either one or the other. Sadly, I believe this is where many chronically ill people reside—in extremes. We'll be looking at how fat and protein can benefit Lyme disease sufferers in the coming sections.

The higher levels of the paleo food pyramid primarily include fruit, nuts, seeds, and dairy in moderation. You'll notice the very conspicuous absence of grains, corn, potatoes, beans, and rice from the above discussion. Since I'm not a fan of extremes, my version of the diet permits these foods, but in extreme moderation. For more information on the paleo food pyramid, I suggest doing a Google search for *Paleo Diet basics* or *paleo food pyramid*.

How Fat and Cholesterol Provide Specific Benefits to People Healing From Lyme Disease

One of the main ways in which fats and cholesterol help people with Lyme disease is to aid in the synthesis of hormones. Lyme disease wreaks havoc on the endocrine system, and the body has a great need for the basic building blocks of new hormones. Cholesterol is indispensable in hormone production; in fact, it is the nutrient from which pregnenolone—the mother of all hormones which is used to create nearly every other hormone—is synthesized.

“But wait,” you say. “I thought cholesterol was bad for us?” I believed the same thing for many years, and for some people, excess cholesterol may be bad, but for those with Lyme disease, cholesterol is critical to the recovery process. This explains why many Lyme disease sufferers crave eggs⁵ (specifically egg yolks), a food which ranks among the highest for cholesterol content. It also explains why many Lyme sufferers actually test low for cholesterol, not high.

Furthermore, saturated fats, both from animal products and also those found in foods like coconut oil, are critical to hormone synthesis. Again, this flies in the face of conventional wisdom which tells us that saturated fats are bad. In fact, it is the trans-, or hydrogenated fats, that

⁵ Eggs are a fantastic food! The yolk is rich in dozens of critical nutrients including cholesterol, B vitamins, choline and inositol, DHA, minerals, and more. The whites provide high-quality protein. Eggs are also affordable.

are bad. Saturated fats actually provide a great deal of support as well as help repair body tissues during Lyme disease recovery.

If you are still reeling from the above statements—that cholesterol and saturated fats are actually healthy—I can relate. I was reeling, too. You should do some independent reading on modern studies, and you'll find that the thinking on this topic is changing in many research circles. Of course, when combined with a sedentary lifestyle and overconsumption, these nutrients can turn into poisons—and so can most other foods. It goes without saying that exercise, as well as moderation at the dinner table, are critical components of any healthy lifestyle.

One of the missing links which helped me to better understand the role of cholesterol and saturated fat in Lyme disease recovery was the discovery that adrenal fatigue plays a huge role in Lyme disease. There are separate chapters in this book to address adrenal fatigue, but for the purposes of our discussion here, the adrenal glands are responsible for producing many of the body's hormones, and when these organs get stressed, as occurs in Lyme disease, hormone production drops to unhealthy low levels. Since adrenal fatigue often accompanies Lyme disease, those suffering from it require extra support for hormone production, and consequently, more consumption of saturated fats and cholesterol than people who don't have Lyme disease. This is another reason why the Paleo Diet is so appropriate for Lyme disease sufferers. It also explains why the general population may not need the same levels of cholesterol and saturated fats as the Lyme disease population.

The simple reality is that people with Lyme disease will usually feel much better and heal more quickly if they include adequate intake of cholesterol and saturated fats in their diet. These nutrients do not, however, replace the need for other kinds of fats, such as the Omega fatty acids found in foods like fish and flax oil. Therefore, Lyme disease sufferers should also consume hearty servings of fish and/or flax oil. Fish can be tricky due to high mercury content; therefore, some people (such as my-

self) prefer to use flax oil instead of fish. While flax oil doesn't have the extremely beneficial DHA component, it does have the building blocks that allow the body to synthesize DHA. Fish-free DHA supplements are also available.

Another important benefit of fat is that it stimulates bile flow. Bile is, of course, your body's primary way to eliminate fat-soluble toxins which are abundant in Lyme disease. So, fat can aid in the detoxification process. *Note: Because the body naturally recycles upwards of 95% of the bile used for digestion by absorbing it in the intestinal tract toward the end of the digestive process, fat soluble toxins can also be absorbed, preventing their elimination. This creates a circular flow of toxins, as bile is first introduced into the gastrointestinal tract to aid in digestion and then absorbed out of the gastrointestinal tract later. Hence, there are various treatments and strategies available which help to prevent bile and fat-soluble toxins from being absorbed; these therapies may break the circular cycle so that toxins are excreted in the feces rather than being retained in the body. These treatments are known as "binders" and are discussed in various places throughout the book, especially Chapter 9.*

Protein

Now let's move on to the discussion of protein, the other macronutrient at the bottom of the paleo pyramid. During one of my stints as a vegan (it only lasted a few weeks!), I was feeling horrible and stayed up late to research dietary philosophies. I happened upon an article written by one of the top healers of our time. The article explained how the body's detoxification system relies heavily on amino acids (i.e., protein). Glutathione, the master detoxifying antioxidant, is synthesized from the amino acids L-cysteine, L-glutamic acid, and glycine. And guess what? Lyme disease sufferers burn through glutathione much faster than other people because our bodies have to work so hard to detoxify all of the toxins and dead organisms associated with *Borrelia* and co-infections. So, we need more, not less, amino acids than the general public.

Sure, vegetable-only diets will allow you to consume many types of vegetable protein, but only animal protein arrives in the form that your body can use right away. Most vegetable proteins require your body to work hard to synthesize them into more readily usable forms of protein, and when you are sick with a chronic disease, this work can be devastating and drain the body's resources even further. So, we see yet another reason to avoid vegetarianism and veganism: you simply aren't able to get enough protein, and the protein you get isn't the best kind for you.

In addition to detoxification processes, protein is important for so many other body functions, such as maintaining muscle mass, healing tissues, and balancing brain chemistry (most neurotransmitters are, in fact, amino acids). During chronic disease, protein is critically important for building new blood vessels and cells, strengthening the immune system, and keeping the body strong to fight infections.

Sure enough, after discovering the above information and discontinuing my vegan diet, I began to feel better immediately. My energy returned, and I was like a new person. I doubt there will ever be another time in my life when I attempt to give up animal protein. Are there some people in the world who may actually benefit from a vegan, or at least, a vegetarian diet? Probably. And you might even be one of them. But chances are, if you have Lyme disease, you will do much better to consume animal protein.

Some animal proteins are healthier than others. It's a good idea to minimize red meat consumption, not because of the fat content but because red meat is very acidic. Poultry, fish, and eggs, on the other hand, are better choices.

Before leaving the topic of protein, we must address one of the most important proteins available—whey protein. And that requires a discussion of dairy products.

Whey Protein & Dairy Products

Dairy products are the schizophrenics of nutrition. Are they good? Are they bad? It depends on whom you ask, and the fads seem to flip flop each year. There is actually good reason for the controversy, believe it or not. That's because dairy is both good and bad.

Most dairy products can be broken down into the following constituents. Once you learn about these constituents, it is easier to evaluate various dairy products.

1. **Milk protein.** There are two primary types of milk protein:
 - a) **Casein.** This is the “bad” protein. It is linked with many degenerative health problems. It is found in milk, cheese, and related dairy products. While it is sometimes used for bodybuilding (especially as a night time meal due to its slow absorption), it is generally recognized as unhealthy. Most people who are intolerant of dairy products are intolerant of casein and lactose.
 - b) **Whey.** This is the “good” protein. It is one of the most bio-available sources of amino acids and is a very useful dietary supplement. It contains little, if any, casein and lactose. If you are familiar with whey protein only as a body-building supplement, you need to take another look: it also has many properties which make it very useful for healing from chronic illness. Few people are allergic to whey protein, and it is generally well-tolerated. One of the greatest benefits of whey protein is that it contains a broad spectrum of amino acids which are easy to digest and absorb. It offers incredible benefits for Lyme sufferers.
2. **Milk fat.** Also called “cream,” this is the dairy product that is used to make butter as well as heavy whipping cream products. It is high

in saturated fat. “Half & Half” is composed of half cream and half milk. Heavy whipping cream and butter have very little, if any, casein and lactose.

3. **Lactose.** Lactose is a disaccharide sugar. Many people are lactose-intolerant, and even people who can tolerate lactose are probably still slightly sensitive to it in ways they may not recognize.

Earlier in the chapter, we looked at the many benefits of protein, saturated fat, and cholesterol. **Therefore, when it comes to a diet for Lyme disease sufferers, most people will benefit from consuming whey protein and milk fat while staying away from lactose and casein.** Varying degrees of lactose and casein may be tolerated, and these amounts will be based on individual biochemistry and sensitivities. As a general rule, foods containing lactose and casein should be consumed in moderation or avoided. Hypersensitivity reactions including inflammation, stuffy nose, brain fog, and other allergies often result when a person is sensitive to, and consumes, lactose and casein.

I buy pure whey protein and make smoothies with it (more on that later). I also use heavy whipping cream in the smoothies. As mentioned, whey protein and heavy whipping cream contain only traces of lactose and casein. While my family doesn't consume much breakfast cereal, on the rare occasions that we do, we use 50% heavy whipping cream and 50% water as a milk substitute. As noted, most kinds of milk are loaded with lactose and casein, so we avoid milk.

Heavy whipping cream is preferred over Half & Half because it doesn't contain milk (Half & Half is ½ milk and ½ cream). We are using the whipping cream to get the fat content; therefore, any milk mixed in is superfluous and only gives us more of the bad elements of dairy. Note that butter and heavy whipping cream are very similar in composition, and liberal consumption of butter can provide important fat that helps with satiety and recovery from adrenal fatigue.

Yogurt is another dairy product which has many benefits (in moderation). We all know about the beneficial bacteria found in yogurt, but it is also a preferable form of dairy because it doesn't contain much lactose; the bacteria consume the lactose during fermentation. Yogurt can be consumed if you can tolerate it but watch for food allergy reactions.

Now that we've looked at a brief overview of dairy products, let's move on.

But What About the Vegetables?

We've talked about dairy products, protein, and fat. Does that mean that we don't need vegetables? Of course not! Vegetables are a critical part of any diet—the more, the better. Vegetables are nutrient-dense, high in fiber, and alkalizing. Remember, our preferred diet doesn't like extremes; we take the best of all the other diets and combine them. A vegetable smoothie is an amazing shortcut that allows much easier access to this food group, and I'll provide the recipe I use for this smoothie in a few pages.

I won't spend much time here singing the virtues of vegetables, since any information I provide will likely be obvious; you've heard it a thousand times. Instead, I'll spend more time talking about the more controversial, less known aspects of dietary decision-making. Suffice it to say, eating vegetables is good, and the more the better.

Fruit

Fruit should be consumed only in moderation. While fruit is fiber- and nutrient-dense, it is also high in fructose, a kind of sugar that can have many negative health consequences. One guiding principle to keep in mind when it comes to fruit is this: if you are reaching for a carbohy-

drate, favor fruit over other carbohydrate sources. The logic is as follows: we are going to be limiting carbohydrate intake to some degree, so you have to choose carefully, because you aren't allowed unlimited carbohydrates. Choosing fruit maximizes the benefit you get from your carbohydrate foods, because fruit is the most nutritious of all carbohydrate-rich choices, especially when compared to empty, nutrient-poor carbohydrate foods like potatoes and rice. It is also helpful to check the calorie and sugar content of various fruits. Different people will have different tolerances for fruit; some people will need more fruit to feel well, and other people will only feel worse when consuming lots of fruit.

Fruit also has a tendency to feed yeast and worsen candida problems, so this should be taken into consideration when deciding how much fruit to consume.

Berries like strawberries and blueberries are relatively low in sugar and calories, and high in fiber and nutrients, so they make good choices. Apples and bananas have more sugar and more calories but are great energizing foods for an active lifestyle. They are also nutrient-dense. I love raisins and dates, as they often satisfy sugar cravings and are great energizing snacks (consume them in moderation, though, as they are high in calories). An interesting study concluded that people who eat dates are less likely to be obese than people who eat the same amount of calories in the form of soda or processed carbohydrates!

Carbohydrates: Treating Them as Rocket Fuel

So, what's the story on carbohydrates? We've already seen that the majority of an ideal diet should be composed of fat, protein, vegetables, and fruits in moderation. Is there a guiding philosophy when it comes to carbohydrates? How much is enough, and how much is too much?

This is where we start to completely diverge from conventional dietary wisdom, and this is where the controversy becomes heated. In fact, in my opinion, this is the area where most Americans go wrong, as the mainstream food pyramid shows that carbohydrates should be the foundation of a healthy diet. If there's one thing in this chapter that should stand out as important, it is probably the following information on carbohydrates.

Our goal for carbohydrate intake should be to strike just the right balance. We want to consume enough carbohydrates to keep our energy up and to avoid a state of ketosis (although new research is demonstrating that ketosis may be a powerful tool to fight cancer) but not so much so as to cause weight gain, blood sugar and insulin spikes, and excessive inflammation. This level of carbohydrate consumption is very small in comparison with the typical American diet. Unfortunately, most Americans don't just consume too many carbohydrates, they consume *WAAAYYYYY* too many. Carbohydrate-rich foods are front and center in most grocery stores and are the go-to snacks and meals for many people. Breakfast cereals, breads, pastries, rice, potatoes, fruit, pasta, snack foods—these are just the beginning. Even whole grains, which are widely believed to be healthy, are consumed in huge, excessive quantities. Cutting back on the carbohydrates is certainly the most difficult suggestion that this chapter will throw at you. It literally requires a redesign of all three of the daily meals as well as your snack food choices. You have to go back to the drawing board for breakfast, lunch, and dinner, which isn't easy to do.

I like to think of carbohydrates as rocket fuel: a little bit goes a long way. When it comes to powering a rocket, you certainly do need fuel, but you definitely don't want too much of it, or you get a huge explosion! Similarly, you do need to consume carbohydrates, but you don't want to consume too much. The exception would be for people who are very athletic and burn a lot of energy on a daily basis. For these folks, high levels of carbohydrates are necessary and get quickly burned off. However,

in all cases, the goal should be to consume just the right amount—no more, no less.

Chronically ill people must be even more careful than others when it comes to carbohydrates, because most chronically ill people don't have the energy for strenuous exercise, and therefore, are much more susceptible to obesity. Carbohydrates that enter the body during a state of reduced exercise/activity are immediately converted to fat. The higher level of activity you can tolerate, the more carbohydrates you can consume without gaining weight. If you are chronically ill, you really can't afford to be obese, as obesity further throws off your already battered hormone balance as well as introduces a plethora of health problems which you really don't want to be dealing with while you are recovering from Lyme disease. Furthermore, obesity increases the chances for connective tissue injury, which will, in turn, make you even more immobile; it's a vicious cycle. Obesity is often a struggle for those with chronic illness, but it should be addressed if at all possible.

So, for carbohydrates, how much is enough? Well, it is different for each person. The rule I use is basically this: I eat mostly fat, protein, and vegetables, until my body tells me it's time for some carbohydrates. Over time, you will learn what this feels like. The difference between the Atkins' Diet and the diet I'm advocating is that the Atkins' Diet doesn't allow any carbohydrates. My diet, in contrast, allows carbohydrates but only as much as I need and nothing more. Carbohydrates are eaten with awareness and intentionality; they aren't the first thing you grab when opening the cabinet. Also, whenever your body is stressed in any way, whether due to emotional factors, physical disease, Herxing, a common cold, or other causes, it will need more carbohydrates to function normally, so take this into account. During periods when you are feeling the strongest, you'll be able to consume the fewest carbohydrates.

It is true that a lack of dietary carbohydrates can cause lethargy, fatigue, malaise, and depression. So, another way to look at this eating plan

is to make it your goal to squeeze the carbohydrates out of your diet as much as possible, without causing your energy levels to bottom out. If you have just eaten and are still hungry, eat more fat or protein, or more vegetables. Squeeze out the carbohydrates with other food choices. If you are really craving carbohydrates, and you can tell you need some rocket fuel, then by all means, eat some. Just be sure to stop after you've had enough.

Furthermore, be careful about the choices you make when choosing particular carbohydrate-rich foods. Stay away from processed, refined carbohydrates and from all types of refined sugars. Instead, choose fruits and whole grains like brown rice. Carbohydrate-rich foods high in fiber help to slow digestion and prevent the blood sugar and insulin spikes that result from eating refined carbohydrates. So, it's not just a question of how much to eat, but also, which carbohydrates to eat.

Ultimately, though, each person will need an individualized, custom level of carbohydrate intake. In my version of the Paleo Diet, I don't restrict carbohydrates to the point that my available energy is decreased, nor to the point that well-being is decreased. Bodybuilders and people who compete in physique competitions often deprive themselves of carbohydrates to the point that they feel fatigue, lethargy, brain fog, and lack of energy. I do not advocate this. People recovering from any chronic disease should eat enough carbohydrates to power their bodies and to energize them for daily activities. Again—and you'll hear me say this many times—the goal is to avoid extremes.

Lastly, I would like to offer some encouragement. I have personally found that the most difficult thing about changing my eating habits is the change itself. It is hard to change how you think about food, to pick new favorite foods, to change your shopping routine, and to re-stock your refrigerator and pantry shelves. These changes require discipline, thought, planning, and new knowledge. However, after you've made the changes, I can tell you from personal experience that it gets much, much easier.

Once new habits are formed, healthy eating will become the new norm, and you'll actually feel like you are going out of your way to eat any differently. It's all about developing healthy habits. I love the saying, "Habits are at first only as strong as cobwebs, but later as strong as cables."

Saying Goodbye to Grains and Gluten

I gave up gluten several years ago. After hearing for years that a gluten-free diet is critical for Lyme disease patients, I finally took the plunge and gave it a try. By this point in my recovery, I was already 95% well, so I wasn't expecting much to happen; boy was I wrong! Giving up gluten was one of the healthiest choices I've ever made. You don't really know how much damage gluten does until you give it up; only then can you see how much better you feel. The importance of a gluten-free diet is now widely accepted by most Lyme doctors and is gaining traction among the healthy population of the world, as well. Several recent books, including some New York Times bestselling books such as *Wheat Belly* and *Grain Brain* focus on the harm done by gluten. I won't spend much time talking about the dangers of gluten here, but if you make only one dietary change in this whole chapter, it should be to say goodbye to gluten. If you aren't willing to do this, you will be missing out on one of the most important, and easiest, ways to feel better. A Lyme diet that includes gluten is just a setup for failure.

My own journey away from grains didn't end with gluten; My family and I eventually reduced our consumption of most other kinds of grains, as well. Trust me—I know how hard that sounds. Before you close the book, throw it in the trash can, and proclaim how unrealistic I am, give me a chance to explain myself. You will see that my own experience has further reinforced the validity of the Paleo Diet for Lyme sufferers (the Paleo Diet advocates very low grain intake).

Here is how my story went. After my family gave up gluten, my wife replaced it with rice. We got rice everything—rice noodles, rice bread, rice pancake mix, rice tortillas. Our goal was to feel like we hadn't given up gluten; we wanted to keep eating the same foods we ate before. This worked for a while. We were happily able to eat the same foods that are normally made of gluten. We enjoyed gluten-free pizza, bread, breakfast foods, and more. However, as time went on, I started to realize that I just felt better when I left out the rice-based products. Over time, my wife agreed, and we slowly started to drop them from our diet. This transition was actually much more difficult than going gluten-free, because gluten-free eating didn't really change our meals much; we just used rice-based substitutes for the recipes that used to call for gluten.

Now, I want to be clear about something. We aren't completely grain-free. I will often make myself a sandwich using gluten-free bread. I'll take a few bites of brown rice from time to time. And when I'm in need of an energetic meal, I'll have a bowl of oatmeal. Remember, our ideal diet avoids extremes! The important thing is that I consume gluten-free grains in my diet as the exception, not the rule. And if I eat too much of them—even a little too much—I'll feel the effects. Grains and their high levels of carbohydrates rapidly turn into sugar once inside the body, and that spike in blood sugar and insulin causes all kinds of problems.

I will say that baby steps are important. Don't expect to radically change your diet overnight, or you'll be disappointed by failure. Take one baby step at a time.

Something interesting happened when we dropped most of the grains from our diet: I no longer had trouble keeping the weight off. I've never struggled with being overweight, but I have definitely gone up a belt loop or two, especially during the winter months. After dropping the grains, this is no longer an issue. While eating a mostly paleo-based diet, my physique began to resemble the body I used to have when I was a teenager. Muscle tone became much easier to achieve, and fat melted off. I won-

dered to myself: is the getting old process we all dread so much—punctuated by flab, weak muscles, and lack of energy—really caused by poor diet, and not just the aging of our bodies alone? I'm convinced it is. I've learned just how powerful nutrition can be.

A friend of mine who competes in amateur body-building contests once told me his secret: “Bryan,” he said, “the secret to a good physique is that it is achieved 90% in the kitchen, and only 10% in the gym.” Until my own eating transformation, I had always been skeptical of this claim. However, I now notice that with proper eating and moderate exercise, I've found it fairly easy to maintain the physique of my teenage self. Consuming a high-fat diet keeps me satiated and prevents overeating. The higher levels of protein in my diet allow me to build and maintain muscle much more easily, while the lower carbohydrate intake keeps me lean and trim and requires my body to burn fat as an energy source. A diet with the opposite composition—that is, high carbohydrates and low protein/fat—would have the opposite effect. Muscle mass would be compromised, and body fat would be gained.

What's even more interesting is the fact that I don't miss the grains at all. The foods I eat now are much more satisfying and tasty, and, most importantly, make me feel so much better than a grain-based diet. When I finally gave myself permission to eat the foods that have always made me feel good, and bucked the conventional wisdom about saturated fats, cholesterol, and protein, I began to feel satisfied after meals, my brain fog after eating went away, and I wasn't always struggling with a belt that felt tighter and tighter. For example, a breakfast of four eggs, a few slices of bacon, and an apple makes me feel so much better than oatmeal with a side of wheat toast. There's just no comparison in how I feel between these two choices—one makes me feel fantastic and energized, and the other makes me feel bloated and leaves me feeling hungry.

The biggest challenge to eating mostly grain-free isn't that it is hard, masochistic, or unpleasant. Instead, it is challenging because it is so far off

the beaten path. The problem is the culture of carbohydrates that dominates our country. It can require hard work and intentionality to rebuild your diet from the ground up. Grains and refined carbohydrates are everywhere we look. Whole grains, which are admittedly healthier than refined choices, are still way too predominant in almost all food choices. Whether shopping at the grocery store or eating out with friends, it is nearly impossible to avoid coming face-to-face with huge loaves of bread, bowls of pasta, and other grain-based products. The hardest part of a low grain diet isn't giving up the grains, but instead, finding tasty substitutes which are accessible at home and when eating out. That is the real challenge, but once you find those substitutes, eating mostly grain-free becomes much easier. Once I discovered good replacement foods, I never looked back.

Putting It Into Practice: Meal and Snack Examples

Now, let's put it all together and take a look at some practical steps to implement the dietary guidelines in this chapter. Please note, though, that while I will give you some ideas here based on what we eat in my family, this is just a limited sampling of the many possible meals you can create using the Paleo Diet principles. Just do a Google search for *paleo recipes* and you'll find enough material to keep you busy for months!

Breakfast

Here are a few different meals you might consider for breakfast:

BREAKFAST IDEA #1: 4 whole eggs (including yolks) fried in coconut oil, served with a handful of baby carrots, a small bowl of plain yogurt (or Greek yogurt for twice the protein content), and a glass of V8 (or other vegetable) juice. Add an apple if you are planning an active day.

BREAKFAST IDEA #2: A few slices of bacon served with avocado, celery, and a chicken-apple sausage.

BREAKFAST IDEA #3: A paleo smoothie (described later).

BREAKFAST IDEA #4: A chicken breast served with a salad (consider adding a few handfuls of raisins or dates mixed with some whole, raw pecans, to the salad).

Lunch

LUNCH IDEA #1: A turkey sandwich made with gluten-free bread, avocado, lettuce, and tomato, along with a side of vegetables, and a few spoonfuls of peanut butter or coconut cream.

LUNCH IDEA #2: A baked chicken breast served with asparagus, and a cup of blueberries.

LUNCH IDEA #3: A filet of salmon served with quinoa, and a side of fresh sugar snap peas.

LUNCH IDEA #4: Homemade vegetable soup with a chicken broth base (chicken broth, especially homemade broth, is very healing to the adrenals).

LUNCH IDEA #5: A paleo smoothie (described later).

Dinner

DINNER IDEA #1: Shish kabobs cooked on the BBQ, including meat, vegetables, pineapple, and mushrooms, served with a salad made with ranch dressing or oil and vinegar dressing.

DINNER IDEA #2: Steak served with vegetables, a baked potato (allowed in moderation), a salad, and a handful of nuts.

DINNER IDEA #3: A paleo smoothie.

Again, these are just a small sampling of meal ideas to give you a general idea of how the diet can be implemented. Remember, flexibility is key. If you hold yourself to an impossibly rigid plan, you will likely fail. Experiment and find the foods you like, and extend extra grace to yourself while you are making the transition to healthier eating.

Snack Ideas

Snacks can be tricky, because we are so conditioned to reach for a bag of potato chips or pretzels. At snack time, I reach for some fruit instead. While I do advocate eating fruit in moderation, snacking on fruit can give you a little energy boost to help you make it until the next mealtime. Along with fruit, I recommend eating nuts at snack time (my favorites are pecans, almonds, and peanuts). The combination of carbohydrates in fruit, with fat and protein in nuts, can keep you satisfied and energized until the next meal. Dried fruit (my favorites are raisins and dates) as well as nuts are also very easy to pack for on-the-go snacks, and they don't require refrigeration or other special keeping. Of course, dozens of good snack options exist, including yogurt, vegetables, meat, and more. Snacking on meat, which may seem weird by our modern culture, can provide a high degree of satiety that will help you make it to the next mealtime. Remember the overarching guideline: pick snack foods that are whole and unprocessed and which don't have a list of ingredients.

The Marvelous Paleo Smoothie

We've mentioned this smoothie a few times in this chapter. Now let's take a look at what it is and why it is marvelous. The smoothie is designed to contain macronutrient ingredients which can power you through your

day. The paleo smoothie literally changed my life in the kitchen—I have one almost every day and feel fantastic when I drink them. It is also an incredible meal substitute if you don't have time to make a nutritious meal. Instead of reaching for the bag of potato chips or a bowl of cereal, reach for the paleo smoothie. It offers the same brainless convenience but with a significantly better nutrition profile. We'll break the smoothie down into the various ingredient categories used to make it.

The Macronutrient Base

These are the ingredients which provide the calories, satiety, and macronutrients for the smoothie. When you start with these ingredients, you can build on them in many creative ways.

1. **Whey protein:** I generally use 1.5 scoops of whey protein isolate which contain about 27 grams of protein. Whey protein is low-calorie compared with other high-protein food sources, making it a good choice for smoothies. I prefer the Jarrow brand; it is listed as “Jarrow Formulas, Whey Protein, Ultrafiltered Powder, Unflavored, 32 oz” on Amazon.com and iHerb.com. You can also buy Jarrow's organic mix, but it is twice as expensive. Whatever you get, make sure your whey protein has only one ingredient—avoid any sweeteners, flavors, or additives. We will be flavoring and sweetening the smoothie with our own, healthy ingredients. I look for the lowest price and often find great discounts and free shipping when buying in bulk from iHerb.com. I also use Amazon Prime, an indispensable service which offers free 2-day shipping.
2. **Heavy whipping cream:** I will add a generous splash of heavy whipping cream which provides saturated fat for hormone production, satiety, and sustained energy. Remember, heavy whipping cream is preferred over Half & Half because it doesn't contain the unwanted milk component (see the earlier section on dairy products).

3. Ground flax seed: Add a large scoop of ground flax seed to enhance the nutrition of the smoothie with the critically important Omega fatty acids. Make sure you use ground, not whole, flax seed; whole flax seed does not get adequately digested. Flax seed is also relatively high in fiber and has potent anti-inflammatory qualities.
4. Add water to help with the blending process as well as ice to give it a cold, thick, refreshing texture.

The above macronutrients give you a high protein, high fat, low carbohydrate, nutrient-dense base which will power you through any challenge your day throws at you! Now let's see how we can doctor up the smoothie with creative flavors to make it taste great!

Creative Flavors and Additives for a Delicious Smoothie

After you have added the above macronutrient ingredients, you can experiment with other items to flavor and dress up the smoothie. A moderate portion of frozen berries along with half a banana create a delicious fruit smoothie. Sprinkle in some cinnamon and a dash of 100% pure, sugar-free vanilla extract, and you've got a recipe that will rival the taste of any McDonald's milkshake! Stevia extract is also available to sweeten up the drink (if you need a sugar-free, zero calorie sweetener, stevia is a decent choice; we use it in our kitchen). I shy away from using any type of sweetener, though. I find the moderate portion of berries or fruit is delicious and doesn't overpower the flavors of the other fantastic ingredients.

Another great flavor idea: get some organic, unsweetened, 100% pure cacao powder, and mix it into any smoothie recipe for a chocolaty flavor that is packed with more antioxidants than red wine and blueberries! Chocolate smoothies made from the macronutrient base ingredients along with organic cacao powder and stevia extract are among the most popular smoothies in my household.

There you have it—the paleo smoothie, one of my all-time favorites for a healthy snack or even a meal replacement. Please realize that the above recipe is very flexible. You can always drag-and-drop other items which you feel are a better fit for your preferences and lifestyle.

Paleo Hot Chocolate

Can you really consume hot chocolate and still be within the boundaries of the diet set forth in this chapter? It's your lucky day: you sure can! Simply mix some unsweetened cacao powder with heavy whipping cream, add a dash of stevia powder, mix with hot water, and you've got a yummy, healthy treat! For a more filling and satisfying hot chocolate, be generous with the heavy whipping cream and add a dash of whey protein.

Paleo Ice Cream

Paleo ice cream is one of my favorite things to make. It is just fantastic! It uses the same macronutrient base ingredients as the Marvelous Paleo Smoothie (and even the same flavoring add-ons). A date or two can be added to increase the sweetness of the resulting product.

You can control the consistency of the ice cream with the amount of ice and water you add. If you are in a hurry and want more of a milk shake, use less ice and more water for easy drinking. On the other hand, if you really want to take your time and enjoy it, add only a dash of water and a generous portion of ice; the result will have the texture of ice cream and can be eaten out of a bowl with a spoon. Eating foods that contain crushed ice is proven to be satiating and satisfying, offering a feeling of fullness, and the chewing that occurs when eating ice cream helps to give you the sensation of eating, which tells your brain to turn off hunger. Also, since ice cream is consumed more slowly than a smoothie, you are more likely to feel full by the time you are done eating. Yes, you are hear-

ing me correctly: healthy ice cream can actually help you avoid the extra pounds as a result of these benefits!

The ice cream you make will taste so good that you will think you are cheating on your diet—but you aren't! You are powering your body with exactly what it needs and enjoying yourself at the same time. In fact, I've been known to eat paleo ice cream for lunch!

You can experiment with various ice cream recipes using the same macronutrient base ingredients. My wife prefers simple vanilla ice cream, which is made by mixing whey, heavy whipping cream, ground flax seed, 100% pure vanilla extract, a dash of stevia, half a dozen ice cubes, and about a tablespoon of water. Note that this recipe is carb-free, yet it tastes amazing. Go easy on the flax seeds or leave them out completely if the flax flavor seems overwhelming. The vanilla can be replaced with 100% pure cocoa powder (with no sugar added) to create chocolate ice cream instead.

The sky is the limit; you can be as creative as you want. The important thing is that the macronutrient base keeps the recipe nutritious, especially for the needs of Lyme disease sufferers. Next time you are looking for a snack or a healthy, easy meal, skip the unsatisfying, fattening, inflammation-causing refined carbohydrates and make yourself a smoothie or a bowl of ice cream instead!

There are many, many recipes like the ones mentioned in this book; you can find them in books and on the internet. A simple Google search for *paleo sugar-free recipes* will yield wonderful results. My wife also really likes the book, *Trim Healthy Mama*. You can find lots of great information in that book.

The Green Smoothie

What if you aren't hungry enough to justify eating all the macronutrients found in the Marvelous Paleo Smoothie or paleo ice cream, but

instead, you want a healthy vegetable meal that is highly satisfying yet low in calories? I find that the biggest deterrent to eating vegetables is simply that they are so chewy, crunchy, and time-consuming to eat, especially the ones that are supposed to be really good for us. A big salad with a tasty dressing can solve this problem, but I have also discovered the green smoothie, and I love using it as an easy shortcut to getting vegetables down the hatch.

The green smoothie is where I get most of my dietary vegetables, and because of this, I make sure to pack it full of the most nutrient-dense, healthy vegetables I can find. I also use only raw vegetables, as these contain the most active enzymes and unadulterated vitamins and minerals. While it would be very difficult to consume raw asparagus, for example, it is easy when it is blended as part of the green smoothie. Likewise, broccoli is a chore to consume raw, but as part of a smoothie, it is easy. In fact, research shows that raw vegetables aren't even completely digested when chewed and swallowed, but when consumed as part of a smoothie, they are almost completely assimilated by the body because they enter the stomach as tiny blended particles which are much easier for the body to break down and digest.

I prefer smoothies over juicing because smoothies leave the whole vegetable, including the fiber, in the drink. I find this to be critical especially since the rest of the Paleo Diet is relatively low in fiber. However, juicing is, of course, a great option as well.

A typical green smoothie recipe in my household looks like this:

1. **Celery**
2. **Kale**
3. **Broccoli**
4. **Asparagus**
5. **Lettuce**
6. **Carrots**
7. **Beets**
8. **Cucumber**

Fruit, ginger, lemon, or even stevia can be added to improve the flavor (This recipe is not for the weak of heart. It tastes pretty intense!). My wife doesn't tolerate the taste very well and so adds a lot of fruit. I don't mind the taste, so I pretty much drink it with just the ingredients listed.

Adding plenty of water is important since all the fiber in these vegetables can make it difficult to drink. However, I find that with plenty of water, I can consume an entire day's worth of really healthy vegetables in about five minutes! It really is miraculous for me. Instead of laboring over a giant bowl of raw vegetables for hours, trying to choke them down by chewing and swallowing, I can simply slurp them down in a smoothie in just a few minutes.

Because these smoothies are so easy to drink in comparison with eating the actual raw vegetables, my wife and I find ourselves eating many more vegetables than we did before we started making the smoothies. We've noticed so many benefits of this, including weight loss, glowing skin, clear thinking, mood improvement, better memory, and other surprising results.

With regard to weight loss, I have been absolutely surprised by how filling green smoothies are. Every time I make one for myself, I think, "This can't possibly be as filling as a paleo smoothie without the macronutrient base ingredients." But, I always find that the green smoothie is even more filling than other types of smoothies. The high level of fiber accounts for this, as does the fact that green smoothies contain so many of the essential vitamins and minerals which the body requires to function. I really believe that my waistline would look a lot worse if I hadn't discovered the green smoothie.

The Right Smoothie at the Right Time

The green smoothie is very different from the paleo smoothie which provides macronutrients to fuel the body's many activities. While the

green smoothie is very filling and satisfying, and contains essential vitamins, minerals, and phyto-chemicals, it lacks the building blocks for continued energy production and healing from chronic disease. Both smoothies contain nutrients that are essential for healing from Lyme disease, but they are each intended to be consumed under different circumstances.

The paleo smoothie is best as a meal replacement or for when you are substantially hungry. On the other hand, the green smoothie is great for when you know you didn't eat your vegetables for the day, yet you aren't super hungry, and you want to avoid a high calorie meal but still feel satisfied and full. I often find myself having a green smoothie for breakfast and then waiting until some real, substantial hunger sets in, at which time, I will have lunch or make a paleo smoothie. The green smoothie can sometimes hold me over to mid-afternoon, which is amazing considering it only contains a couple hundred calories.

This brings us to another important point. While the macronutrients fat and protein are essential to recovery, you should only consume them when you are substantially hungry. Consuming any food that contains a generous amount of calories when you aren't hungry will lead to weight gain. If you just want something to slurp down as a snack and you aren't really hungry, choose the green smoothie or a bag of baby carrots. Don't choose a high-fat or high-protein meal.

Tips for Success with Your Healthy Eating Plan

Now that we've seen some of my dietary suggestions and recommendations, let's move on to some of the general tips for success which can be applied to any eating plan.

The Poisonous Effects of Sugar

Because this book is intended for more of an advanced audience, I assume that you already know about the extreme dangers of consuming refined, processed sugar when you have Lyme disease. If you aren't aware of these dangers, you might want to do some research or read my previous books. A diet high in sugar will short circuit your recovery process and negate any other good dietary choices you make.

Don't be Afraid to Eat Things That Seem Socially or Culturally Weird

No dinner in the house? Don't worry. Just have a few carrots, a spoonful of peanut butter, and a spoonful of coconut oil, and you are all set! "No way," you say. "That's too weird!" Yes, it may be weird, but is weird a good reason not to do it? I notice that most people's eating habits are dictated more by culture and custom than by nutrition and science. And worse, many people fall to marketing hype and end up consuming processed foods produced by big corporations. Take a look around. Do the American people really exemplify the kind of health and lifestyle you want to emulate? Maybe, it is OK to be just a little bit weird, if it means you will be healthier than everyone around you. Sometimes, the healthiest food choices may seem to be the weirdest choices to the people you are hanging out with. But again, remember how Paleolithic people ate. A handful of nuts here, a banana there, a piece of meat a few hours later.

A bonus to following the Paleo Diet is that food choices are often very convenient and even as quick as fast food, with very little preparation, cleanup, or hassle. Remember, the Paleo Diet often prefers raw foods with only one ingredient. So the Paleo Diet is easy, not hard, for people on the go who don't have time to prepare healthy meals. A few handfuls of almonds is all it takes to replace a meal.

Plan Ahead—Especially When Traveling

This one doesn't need much explaining. Wherever you travel, chances are you won't find the kind of food you need to eat. Just make sure you are close to a grocery store when you get to your destination. Then you can get what you need instead of eating processed carbohydrate junk food. My wife and I sometimes joke that grocery stores are our restaurants, since restaurants typically don't have the broad food choices available which allow us to eat correctly.

Similarly, if you will be dining at a friend's house or restaurant, plan ahead. Know what's on the menu. If you can't or don't want to eat what is offered, simply eat a meal before you go and join in for the company and friendship, not the food. If you're invited to a close friend's for dinner, hopefully they will know you well enough to have a meal option for you.

While sometimes inconvenient, I've found that making good food choices instead of opting for the easier, culturally acceptable eating habits always makes me happier in the end.

Hunger is Your Friend, Food is Your Enemy

I love this saying. To most people, hunger is the enemy—an imposter intent on making you miserable—but the truth is, a little bit of hunger is your friend. It ensures you won't eat when you don't need refueling; it prevents obesity; and it develops in us an attitude of moderation when it comes to food. So remember, if you are a little bit hungry, don't open the refrigerator door right away—hunger is your friend.

On the other hand, for most people, food is the enemy—or at least, too much food is your enemy.

Fiber is Your Friend

Fiber has many important benefits for healthy people and chronically ill people. For Lyme disease sufferers, fiber is particularly important because it keeps the bowels moving, and the stool is the primary means for eliminating fat soluble toxins. Make sure you eat plenty of fiber.

Food Allergies

Avoid food allergens at all costs since food reactions can cause inflammation and reactivate old symptoms. Be especially aware of dairy products, which are very likely to cause problems in people with Lyme disease.

Paleo Desserts

Almost any dessert can be made with paleo ingredients and taste almost as good as the real thing. Do a Google search for paleo dessert recipes and you'll find results which allow you to keep eating many of your favorite dessert foods!

The Paleo Lifestyle Doesn't Stop With Food

The principles underpinning the Paleo Diet don't just apply to how we eat. They also apply to many other areas of our lifestyle. The next two chapters, Chapters 5 & 6 (especially Chapter 6), describe how these principles provide benefit to those healing from chronic disease.