life by DESIGN

Join the Drive to
ONE MILLION FAMILIES WORLDWIDE
Living Life By Design

eat by DESIGN

Eat By Design works in harmony with our body's genetic make-up and design. It is an approach to fulfilling the nutritional requirements of the body for optimal function. Eat By Design teaches people how to eat in order to create health as opposed to the culturally accepted norm of nutrition for disease treatment and prevention.

Eat By Design is a vital component of your *lifestyle for a lifetime*.

The Why Behind the What

Your body is in a constant state of change and, with every choice made; you are either giving your body what it requires or interfering with its optimal expression.

You could say you are either *growing or dying* and the state that predominates most often will ultimately determine the quality and quantity of your life.

You see, the functions of your body are innate, inborn and automatic. It's part of being a human being. There is no need to tell your liver how to work and, as long as you are living, you couldn't stop the cells in your body from striving towards health even if you tried.

This means turning to supplements, herbal remedies, pharmaceuticals, superfoods or any other "treatment" in an attempt to control, modify and manipulate blood work,

symptoms or other measurements often confused as being equivalent to health is a moot exercise.

The real 'game' is identifying the requirements, living a life that consistently fulfills them and enjoying the experience of a body expressing its inborn nature for health and an incredible life. The fundamental requirements for an optimal life are **movement, sleep, water, nerve supply, air, purpose, and the focus of this book – fuel**.

Food is our supply of materials for the recreation of cells, organs, tissues, and hormones within our body. In order for your body to make these new healthy cells and move towards your optimal genetic expression, you need the correct building blocks.

Eat By Design is the strategy to ensure you achieve this.

There is no need to strive for weight loss, to monitor your cholesterol levels, or to search for incredible health. As the body consistently receives what it needs, it begins to unfold into everything it is designed to be. It's not coconut that cures diabetes. It's the way the body uses the nutrients from coconut. Blueberries don't cure cancer but berries provide micronutrients that the body can use to allow optimal immune system function.

Never forget that YOU are designed to be extraordinary and YOU are more super than any food.

What is "Eat By Design"?

The concept "By Design" describes an action or strategy aimed at addressing an ***essential*** requirement for the body's operation and that moves us towards a greater expression of our genetic potential. Essential – meaning the body needs it to operate (nerve supply, sleep, air) and, with regards to fuel, it also means these requirements (nutrients) cannot be synthesized in large enough quantities by the body, so that they must be consumed.

Eat By Design is simply a strategy to fulfill our requirements for fuel based on what, as humans, we are best adapted to, what are the best nutrient dense foods with the least amount of toxicity, and what foods ultimately move us towards a better expression of our current design.

Eat By Design has developed as a model, based on biological reality viewed through a philosophical lens of logic and reason. However, it is far from the only approach with similar recommendations for what is considered optimal fuel. In fact, many will recognize the foods as very Paleo-esque – meaning based on the food consumed during the Paleolithic Era and popularized by The Paleo Diet.

How is Eat By Design different from The Paleo Diet?

That's a great and very important question to answer! Although many of the final recommendations will be similar, the basis for those recommendations will be significantly different. Understanding the rationale for Eating By Design will enable

you to think logically and scientifically about your choices and not be relegated to the over-simplistic and false assumption that, because a "Caveman" did or didn't eat it, I should or shouldn't eat it either.

To first understand the three major shortcomings of The Paleo Diet argument, let's paraphrase Mat Lalonde, PhD in organic chemistry from Harvard and one of the leading thinkers in this field of ancestral nutrition:

1. ***"Our ancestors and modern hunter-gatherers consumed a diet that was mostly devoid of grains, legumes, and dairy, and they were virtually free of diseases of civilization.*** *People then make the invalid inference that consuming a diet mostly devoid of grains, legumes, and dairy will thus allow us to be free of diseases of civilization."*

This, of course, is simply not true. This is only a correlation and does not necessarily mean one is the cause of the other. There are many uncontrolled and confounding factors that are not addressed with this statement.

2. ***"We have evolved over millions of years without consuming the foods that became readily available only after the advent of agriculture. Hence, we're not adapted to these foods.*** *This assumes that a species isn't adapted to a food because it's never consumed it. However, if you look at the evolutionary record, that's incorrect. There are plenty of examples throughout evolution where a species discovers novel sources of food and thrive on them."*

A great example is humans and meat. Humans began by eating plants, fruits and bugs, and eventually began to scavenge the bone marrow and brains of carcasses, and the physiology of humans changed to match our new lifestyle choices. Add in fire and cooked plant matter -- we shifted to a much smaller gut and a much bigger brain. The rest is, well, history.

While adaptation to a food is the take-home point and a core criterion for what is *By Design,* never consuming a food does not mean that food could never fulfill our nutrient requirements and move us towards optimal cellular function.

3. *"**Our genes are virtually identical to those of our Paleolithic ancestors - so we should live as they did.** It is true, human beings and chimps have virtually identical genomes to the tune of 99.5% but the difference between a human being and a chimp is not in genes, it's in the expression of the epigenome. Just because two species have similar genes does not mean that they will both thrive in similar environments or with similar food sources."*

As Dr. James Chestnut notes, "We are the genetic expression of our lifestyle choices." Our fuel requirement for optimal function is species specific and based on our epigenetic expression. In the end, you'll find that every human being requires protein, fat and micronutrients. The only question is, what are the best sources to fulfill those nutrient needs?

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least amount of toxicity, and what foods ultimately move us towards a better expression of our current design?

The Challenge That Lies Ahead

The sea of information within the field of nutrition is vast, complex and evolving. We fully acknowledge the experts and industry leaders in ancestral nutrition who continue the tireless pursuit to research and educate a public entrenched in outdated thinking.

These colleagues have done an incredible job at organizing and conducting scientific studies, interpreting and synthesizing information as well as using the Internet, social media and pop culture to bring these concepts into the mainstream.
The challenge, however, with using only research to make our most important choices and decisions is that the information we hold as truth is subject to change -- new research is conducted, some research is manipulated to support a vested interest and, in some instances, it is just poorly done.

With that noted, we must rely on principles that have been time-tested, are based in logic and supported by the best science available. What follows is not a scientific inquiry, but a logical action-focused application of the Eat By Design Principles.
If you are searching for more scientific research and interpretation regarding the principles of Eat By Design, a good place to start is Dallas and Melissa Hartwig's book, "It Starts With Food."

The Ten Steps of Eat By Design

Step 1. Eat real food first.

Establish food quality as the most important criteria. If it comes in a package and has a bar code, it's very likely not to be By Design.

Eating real food means sources that have not been processed and are as close to their natural state as possible. For example, potato chips are a highly processed food. They do not exist in nature; all of their ingredients must be processed and then assembled before they can be consumed. An apple, on the other hand, is not processed. It is grown on a tree, can be picked from the tree and eaten in its current form.

Real food contains the best sources of all, the building blocks required for life and quite often many of the building blocks are even linked. Protein, for example, is a vital dietary staple and, while drinking a protein shake will fulfill the protein requirement for health, eating a grass-fed steak will give you ample protein, as well as fat and many other required micronutrients.

This is NOT to say a man-made food could not be considered *By Design,* or a food source many would consider "real" could not be toxic. To qualify as *By Design,* a food would only have to move a human closer to their genetic potential. The common thread is the body's adaptability to that food – not the time frame during which it was discovered.

This concept is a major distinction between Eat By Design and the Paleo Diet. For something to constitute as Paleo, it would have to have been consumed during the Paleolithic Era, and any foods which are new or Neolithic would be considered toxic. Eat By Design is built on the acknowledgement that the cornerstone to biology is adaptation. While longer exposure (time and pressure) generally means a greater chance of adaptability, it does not, via the same logic, mean we are not adapted to new, never-before-consumed foods.

The focus on this first step is food quality. Start by putting more good quality, real food into the body and address food quantity later on if necessary. If you simply began to understand what real food was and started eating it, your health and life would transform dramatically.

Step 2. Eat protein with every meal.

Healthy sources of beef, pork, lamb, chicken, turkey, wild game, eggs, and wild fish have been a staple of our diet for a very long time.

Low protein diets have become a staple recommendation by healthcare and sick care providers over the past 50 years. We have been told protein strains the kidneys, weakens bones, is unhealthy and even makes us fat.

Amidst all the perceived controversy, hundreds of peer-reviewed scientific articles show there is no controversy in terms of the safety of protein consumption. In fact, the opposite is true. The danger of under-eating protein is clear.

Consider the average diet that contains minimal protein and is high in processed carbohydrates. This diet has produced a population where seven of ten North Americans are obese and one in four have metabolic syndrome.

It is unquestionable that protein is a requirement for life. It is needed for growth and development of bones, muscles, nerves, the brain, skin, hair, nails, tendons and ligaments. Your hormones are part protein. Your enzymes are proteins. Your neurotransmitters are proteins. The antibodies of your immune system are proteins. DNA, your genetic material, is a code for building proteins. Every single cell in the body needs protein.

These proteins are made up of amino acids; smaller building blocks that allow for the development of different size, structure and function. There are 21 different kinds of amino acids and, of these, there are nine that the body cannot make. These nine are called “essential amino acids” because it is essential that you get them through food consumption. Protein sources that contain all 21 amino acids are called complete proteins. All animal proteins are complete proteins. Most plant proteins are not complete proteins.

Based on animal protein research, protein metabolism, archeological data, and logic, we strongly feel it is impossible to fulfill all the requirements for 100% health without eating animal proteins. This does not mean you could not function well without animal proteins, as there are ways to get adequate protein into the body. It is to say you could never be optimal without them, as animal proteins best fulfill the protein requirement for the human body.

Meat is an extremely nutrient-dense food. In addition to being a source of complete protein, meat provides vitamins A, B2, B3, B6, B9, B12, vitamin K2, choline and the minerals magnesium, copper, chromium, potassium, selenium, zinc and iron. The type of iron found in meat is heme and is much more easily absorbed in the body than non-heme iron, the form found in plants. It is also satiating – makes us feel full, and it is thermogenic – speeds up our metabolism and burns fat.

To achieve your goal of consuming adequate healthy protein, we recommend hormone-free, antibiotic-free, free-range, grass-fed meats where available. In some instances, you may not be able to accomplish all four criteria, or for other reasons you may not be able to achieve any of the criteria. Choose animal sources first and pick higher quality as your resources allow.

Do not cut out animal protein because you cannot find or afford the absolute best quality.

TIPS

1. Eat a protein source (beef, pork, lamb, chicken, turkey, wild game, eggs, or wild fish) at every feeding.

2. Liquid sources of protein (shakes, smoothies, etc.) should **NOT** be your first choice. They can be a substitute occasionally and are often a better choice than a toxic alternative, but they are not REAL FOOD.

3. Pre-cook your protein. Make it easy by having some protein ready in a glass container in the fridge or with you at work.

Step 3. Eat vegetables.

Cooked is better than raw.

Vegetables are the edible portion of a plant not including the fruits, grains or nuts. They are highly dense in vitamins and micronutrients and seem to be the one food everyone can agree on as a vital component of our diet.

If there is any debate, it is over what types of vegetables and how much of them should be consumed. Even these disagreements exist because their ingestion is being affiliated with a prescription for resolving a specific disease process or illness. Health product marketers love to talk about how "the cure for cancer" or any disease for that matter comes from an exotic berry or other food found only in the remote rain forest. It's paramount to remember - Eating By Design is not used to cure disease; its purpose is to give your body the proper building blocks. Once your body has what it needs, it will 100% of the time begin to work better and be healthier. This does not mean your disease will resolve; it simply means the cells of your body will function better. The result of your improved function may be hundreds of noticeable changes from increased energy, to better sleep, and strengthened immunity. It may even be a resolution of your disease process -- or it may not.

Eat By Design is not therapy, it addresses what the human body needs to function at its best.

Vegetables are always a good choice. The best method of preparation is to cook them, as plants have developed anti-predatory mechanisms that can be harmful and affect the digestive process in humans. Cooking your vegetables will make the abundance of nutrients present more available for absorption and easier for you to reap the benefits of consuming them.

Step 4. Increase quality fat intake.

This includes fat from healthy animal sources, pastured butter, ghee, coconut oil, avocado, minimal nuts, seeds and olive oil. Avoid highly processed seed and grain oils.

Fat has been the most vilified nutrient of the last 50 years. Why? It doesn't make you fat, it doesn't cause heart disease, and it is required for just about every physiological function in the human body. Without fat in our diet, we would die.

The person responsible for this trend towards the low fat lifestyle was researcher Ancel Keys. His 'Lipid Hypothesis' proposed that eating fat caused high cholesterol, and high cholesterol caused heart disease.

Keys published The Seven Countries Study, an epidemiological (observational) study that looked at patterns of food consumption in different countries and the

occurrence of heart disease. The study concluded that the countries that consumed the most animal fat had the highest incidences of heart disease and therefore that fat causes heart disease.

However, before publishing the Seven Countries Study, the researchers originally looked at the data for 22 countries. Ancel Keys presented only the data for the seven countries that most strongly supported his hypothesis.

Keys took the one relationship that supported his theory, framed it to support his hypothesis, and neglected the other evidence. Unfortunately, the rest became history. And we continue to pay the price.

We know fat is a required nutrient and some forms of fat like omega 3 fats are considered essential, meaning we must consume them to ensure we have sufficient fat in our diet to become or remain optimally healthy.

Start by consuming fat sources that exist in nature and have been as unprocessed as possible. Some great fat sources are: pastured grass-fed animals, wild fish, eggs, butter, ghee, olive oil, avocados, and coconut.

The type of fat that should be completely avoided is anything that is man-made - not because it is man-made, but because at the present time there is no man-made fat source that enables us to function closer to our genetic potential. Man-made sources of fat are seed oils (sunflower, safflower, linseed), vegetable oils, canola oil, and most trans-fats.

The three different fats that we consume are: saturated, mono-unsaturated, and poly-unsaturated. Let's look at each one briefly.

a. Saturated Fat

Previously thought to be the worst of all nutrients, saturated fat has been slowly starting to get the credit it deserves. It is a stable fat, hence the term saturated and thus much more difficult to damage than unsaturated fats. It's great for cooking, tastes amazing and – straight up – is good for you!

Animal fats are 30-40% saturated fat. That is why those who think that saturated fat increases cholesterol and that cholesterol causes heart disease love to blame butter, eggs, cheese, beef, etc. for cardiovascular disease.

Saturated fats are essential for:

- The immune system
- Nerve conduction
- Hormone activity
- Enzyme activity
- Nutrient metabolism
- Regulation of gene expression (when to make certain proteins)
- Cell reproduction
- Apoptosis (programmed cell death, important in tumor suppression)

- Using fat-soluble vitamins (A, D, E, and K)
- Absorption of unsaturated and poly-unsaturated fatty acids
- Incorporating calcium into your bones
- Making surfactant (the lubricant in your lungs that aids you in breathing)
- Protecting your liver from toxins
- Brain function (the majority of the fatty acids in your brain are saturated)

By not eating saturated fat, you limit the raw materials available in your body for these vital functions. Focus on choosing real foods – the less hormones, antibiotics, pasteurization and processing, the better.

b. Mono-unsaturated Fat

Mono-unsaturated fat comes from mostly plant and vegetable sources: olives, olive oil, avocados, and certain aspects of meat and coconut.

c. Poly-unsaturated Fat

This is also referred to as an essential fat, meaning we need to ingest it in order to survive. The three different kinds are omega 3, 6, and 9 fats. A healthy omega 3:6 ratio falls between 1:1 and 1:2 – a far cry from what we find in our sick population. Our modern lifestyles and listening to low fat propaganda have thrown our omega fat balance far out of proportion, some researchers state as far as 1:20 to 1:50 omega 3:6 ratio. This reinforces the importance of high quality animal products, as all

grass-fed, pastured animals are high in omega 3 fatty acids and play an important role in maintaining a proper balance between the different types of omega fats.

The three different types of omega 3 fats are ALA, EPA, and DHA. EPA and DHA are available in animal products and are the source that the body can use. ALA is the plant-based version and it can be utilized as well, but only after a complicated and inefficient conversion process. For this reason, animal-based sources of omega 3 fats are recommended.

Lastly, no discussion on fat would be complete without addressing the *Cholesterol Myth*.

Cholesterol is a nutrient used by the body for growth and repair. Of all the misinformation existing within the nutrition field, there is nothing that tops the list more than cholesterol. Think about it logically. How can a nutrient required by the body be so devastating and deadly?

The body doesn't make mistakes; it adapts to the best of its ability given its resources, environment and capacity. It is always working towards finding a state of optimal expression. Even if that optimal expression seems to be a negative, it's the best the body can do in that moment.

The body makes cholesterol as part of the healing and repair process. If the body is severely damaged, stressed, and inflamed, it makes sense that more cholesterol will be produced. The lipoprotein carriers for cholesterol (LDL and HDL) can spend extra

time in the bloodstream, making them vulnerable to oxidation and creating the potential for clotting the arterial wall. But the problem is not the level of cholesterol. It is the adaptation the body is attempting in response to a toxic and stressful environment.

Cholesterol is not bad; it is good. Everyone needs to eat it, and the body needs it for every function it performs. As the growing amount of scientific data continues to surface, we are beginning to see an inverse correlation between cholesterol and mortality (the lower the cholesterol, the higher the mortality). You would expect this to shock the "scientific" and medical world, yet it hasn't. The good news is many of the honest nutritional and medical researchers who are able to think for themselves have dropped the lipid hypothesis completely and are telling their communities to eat fat -- it is By Design!

Step 5. Remove grains and legumes.

Publicly, some emphasis is placed on gluten containing grains (I'm sure you know at least someone who's 'gluten free'), but NO grain or legume provides us with nutrients we cannot receive from better By Design sources, in more quantity and with less of the negative effects like anti-nutrient and gut-irritating properties.

This step is hands down the most challenging and controversial in the minds of most people. Not because it is difficult to implement but because consuming grains and legumes have been deeply integrated into our culture as healthy.

A grain is the seed of a plant including but not limited to wheat, barley, corn, rice, spelt, millet, and many more examples. Refined vs. whole or 12 grain vs. 7 etc. does not matter. A grain is a grain. The effects may vary but the general principle is the same.

Since this book is not an in-depth analysis of the science behind each step, here is a summary of the main reasons to avoid grains and legumes. As always, we encourage you to dig deeper and expand your understanding by following through with the resources we have provided.

Grains and legumes are nutrient-poor.

They do not contain any nutrients you cannot get in a more available form than with meat, vegetables or fruits. If you don't believe it, read the packaging. It is always "fortified" with some type of nutrient or vitamin. When we compare that to any fruit or vegetable there is no need to fortify them with anything because they are already nutrient-dense.

"I don't think it's healthy, or makes a lot of sense, to remove a food group."

This is the comment that many people make when confronted with the proposition of removing grains from their diet. Full credit to the grain industry; they have done an amazing job of lobbying the government, making people think that grains are a food group and that the concept is somehow synonymous with a nutritional requirement.

Grains contain anti-nutrient properties.

Every living thing, including grains, wants to stay alive. Every species has ways of protecting itself from invaders, and grains are no different in that sense. Since grains are the seeds of a plant and a plant cannot move, they have developed chemical defenses against parasites and bugs that have consumed them in the past.

Prolamins are plant storage proteins, which are difficult to digest. Humans have not developed the proper enzyme systems in order to adapt to these proteins; thus we humans are left vulnerable to a host of issues.

Gluten is the best known and falls into this category because of its protein, gliadin. However, each plant species has different prolamins, which can have similar effects. Gluten consumption has been related to detrimental effects at the intestinal barrier known as leaky gut syndrome, and in some people the effects can be as severe as a disease process called Celiac Disease.

The damage caused by gut permeability and documented in the peer-reviewed research can range from digestive disorders, neurological disorders, autism, schizophrenia, psoriasis, autoimmune disorders, and many more.

Lectins are another toxin that can do damage to the gut lining, prevent the gut from self-healing and, if they enter the blood stream, can create an immune driven inflammatory process. You can destroy many of the lectins by cooking but if it's not

lectins, it will just be some other substance the grain has that will negatively affect the body.

Phytates are a substance that initiates cell fertilization when the seed hits the ground. This is a wonderful mechanism for the seed but not for those animals that attempt to consume them. Phytates bind to metal ions like calcium, magnesium, iron and copper, making them unavailable for absorption and difficult to digest.

"Grain agriculture as it is currently practiced is unsustainable."

– Mat Lalonde.

Even if grains were a great source of nutrients, and did not have gut-irritating and pro-inflammatory effects, the current model of grain agriculture is not sustainable. Of course this requires a detailed discussion and one, which is outside the scope of this book, but for the sake of completeness, we have chosen to include it in our list.

Although there have been some minor adaptations among some cultures to grains and legumes, it is really a question of what is optimal vs. what can be tolerated. Some of these substances are much more damaging, such as wheat, and some less so, such as white rice. The negative effects in some instances can be mitigated by soaking, fermenting and cooking, but in the end it will always be a short cut in order to get the most from the least with minimal damage.

Unless you are choosing a vegetarian lifestyle in which some fermented beans and legumes can help increase protein content or the endurance athlete who incorporates

the occasional dose of white rice, the best and optimal choice is simply to remove grain and legumes.

Step 6. Remove sugar.

It is a toxic substance and should be avoided or consumed in very small quantities. This includes high fructose corn syrup, fruit juice, pop and packaged foods. Fruit is still a sugar and should be consumed based on your goals. Fat loss? Consume very minimal amounts of sugar. Healthy body composition? Consume in conservative moderation.

The purpose of glucose in the body is to feed the brain and red blood cells and to save glucose in the form of glycogen for easy and quick access in the muscles and liver. Sugar can best be compared to rocket fuel -- your body needs it for quick powerful boosts -- while fat, the body's preferred source for everything else, is like diesel fuel; it burns longer and stronger.

The issue isn't that the body is unable to adapt to sugar consumption -- especially when it comes from real food sources like sweet potatoes, squash or pumpkin. The issue is that we ingest an abundance of sugar that is not from real food.

The main source of sugar in real food is glucose and the main source in fake food is fructose. This is a very simplified view, but to understand the general principle, it works. Our friends at the Whole30 have called these foods 'Frankenfoods' – highly processed and loaded with fructose because it is cheap and easy to produce. Franken

food is also a complete anti-nutrient (actually takes good nutrients out of your body) and a disaster for the human body, especially when consumed in vast quantities.

Due to the other chemicals and additives found in these 'Frankenfoods,' even our brain chemistry has started to change. Our perception of what is sweet is altered and down-regulated as an adaptation. And the result is we crave more!

This cycle continues on and on; we crave more sweet foods, fill that need, and in the process negatively affect liver function and initiate metabolic syndrome. And so the downward spiral to terrible health ensues. It may seem daunting at first, and the process may terrify you, but removing sugar-laden fake foods will have a dramatic effect on your health in ways you will only begin to understand when you make that change.

What about fruit?

Fruit does contain nutrients and does provide your body with building blocks. However, the carbohydrate source is fructose for the most part. The amount of fructose pales in comparison to the amounts found in Frankenfoods, but it is fructose nonetheless.

There is no actual need to eat fruit as all of the nutrients can be found in other *By Design* sources like vegetables and meat. If body composition is a goal or if you are metabolically deranged (diabetes, cancer, auto-immune disease, hormone imbalances, or unable to lose weight regardless of what you do), limit your fruit

intake. If you are metabolically healthy and physically active, adding a small amount of fruit can be positive.

Step 7. Earn Your Carbs

Depending on your training goals and body type, increased carbohydrate intake may be of benefit. Carbohydrates are best consumed from non-gut irritating sources like sweet potatoes, yams and squashes.

Eating By Design is not a "low carbohydrate" diet. Do we advocate consuming less carbohydrate than the grain-lobbied government thinks you should eat? Yes, but that doesn't mean it is low carbohydrate. You should eat as much as is required for your body to function optimally, or as we like to call it "carbohydrate appropriate."

A carbohydrate is a macromolecule like fat and protein. However, unlike essential fats and essential proteins, the consumption of carbohydrate is not required in order to survive, as the body can make glucose from protein via a process called gluconeogenesis.

This is not to say we should not consume carbohydrate -- it's making the point that we do not need to in order to live. Of course, the goal of living your Life By Design is not merely survival but instead to thrive. In that case, carbohydrate consumption is recommended.

To optimize the process, you want to focus on the quality of the carbohydrate source and tailor the amount of intake to the body's needs.

The best quality carbohydrate sources are what we consider "safe starches." Some examples are, but not limited to: potatoes, yams, root vegetables, and tubers. All of these are non-toxic forms of starch with no gut-irritating or pro-inflammatory effects (unless you have an auto-immune disorder, see the section regarding auto-immunity alterations).

Carbohydrate-appropriate means matching the amount of carbohydrate you're eating to your level of activity and metabolic expenditure. It means being active -- training, exercising and moving enough to require an increase in carbohydrate consumption. An inactive person will have lower needs for carbohydrates and, as such, any unutilized sources will be converted to triglycerides and stored as fat.

If you are training regularly, a great time to consume your carbohydrate source is on the days of your intense training sessions. Although there is no need to become overly focused on when to consume them – just make sure you are active enough to require adding more into your diet.

Step 8. LBD Essential Supplements.

Eat By Design is the primary approach to fulfilling your nutritional requirements; the Essentials simply fill in the gaps: Omega 3 saturation, vitamin D optimization and probiotic use for gut health.

Our current lifestyle and environment makes being fully sufficient in all required nutrients challenging and in some cases, nearly impossible. We recommend some basic supplementation to fulfill what is missing for the majority of people. Keep it simple: an animal source of omega 3 fats, vitamin D, and a probiotic. Eat By Design is the primary approach to fulfilling the body's nutrient requirements; the LBD Essentials simply fill in the gaps.

Vitamin D Optimization

Getting adequate vitamin D is essential for health. With over 3000 binding sites for Vitamin D in every cell, we are clearly designed to spend time in the sun, supplying our body with the rays that aid in the production of this vital prohormone. Unfortunately, our modern lifestyles rarely allow for such regular sun exposure, especially in northern climates. We're told to avoid the sun at all costs or, if we absolutely must venture out into the light, to apply a thick layer of sunscreen. On top of this, except for fatty ocean fish, there is very little vitamin D in any commonly consumed natural foods.

The best way to know how much Vitamin D someone needs is to first determine what their blood levels of Vitamin D are currently. For optimization blood Vitamin D levels should be between 30-50 ng/mL for adults and children. Unfortunately, most of us fall seriously short.

Children under one year old can begin with 1000 IU, increasing to 35 IU/lb of body weight until reaching the adult dosage. Some people may need more for a period of

time, but typically 4000-6000 IU/day will maintain levels in an adequate range for optimal physiological function.

Omega 3 Saturation

Historically we obtained our essential fatty acids, both Omega 3 and 6, from dietary sources of wild game, seafood, and less appetizing sources like grubs and insects. Our modern grain-fed food supply, complete with refined vegetable oils rich in omega-6, has completely altered the critical balance of omega 3:6 in our modern diet.

Supplementing our diets with pure, pharmaceutical-grade fish oils has proven the best way to re-balance this all-important ratio, while you reel in your omega-6 consumption and start the process of eating By Design.

We recommend 2-4 grams of total EPA/DHA per day. **However, if someone is eating By Design they may require less or even none to maintain their omega 3:6 ratio in a 1:1 balance.**

Probiotics

We are designed to receive our first dose of bacteria during the birth process. Unfortunately, the high cesarean section rate has put many of us behind the eight ball from day one. After that, we grew up eating dirt. Along with the dirt came billions of organisms that entered our mouths daily and populated our guts,

most being "friendly" bacteria that actually help digest food and strengthen our immune systems. The problem today is that we don't eat dirt; we wash everything. Of course, given what is in and on the dirt around us, it's probably best that we do wash it all, but in the process we never get a chance to ingest those healthy bacteria that we are designed to consume. Additionally, we kill off many of our probiotic bacteria with poor nutrition, prescription drugs and highly stressful lifestyles. For these reasons, it's wise to take a probiotic supplement.
We recommend you begin taking a broad-spectrum probiotic with 10-30 billion CFU/day.

Step 9. Dairy is a grey area.

For the most part, stick to butter and cream (raw if possible) avoiding the dairy proteins in milk products which may be allergenic to many and which have other known issues.

Dairy is a perfect example of a food that is not considered "Paleo" but could still move us towards a greater expression of our health potential and for our purposes would be considered *By Design*.

Dairy is a great source of fat, protein and micronutrients which means it fulfills some of the vital nutritional requirements of the body. Some cultures have even shown a genetic adaptation to dairy in the form of lactase persistence over a relatively short time.

The problem is that not all dairy is equal. The pasteurization process damages the natural state of dairy and turns it into a processed food as opposed to raw dairy which is a whole food. Many people who cannot tolerate pasteurized dairy due to the milk sugar lactose have no issues with raw dairy as this whole food actually has lactase in it naturally to break down lactose. This is yet another example of how real food differs significantly from processed food.

The only way to truly know is to remove dairy for a 30-day test period and then reintroduce it. If you tolerate it well, full fat sources of dairy like cream, butter or hard cheeses, ideally raw, could be a positive addition to your Life By Design.

If your toleration is poor -- as it may be the case for those with an autoimmune disorder, gluten sensitivity or poor gut function in general -- remove all dairy.

Step 10. Stop counting calories!

Far too much importance is placed on calories. Food quality and balancing your metabolism is far more important than simply limiting the amount of food you're eating. No matter what your health goals (even weight loss), counting calories is not the most important strategy.

The simple principle of Eat By Design is to eat real food that fulfills requirements, is non-toxic, and to eat it when you are hungry.

Hunger is a tightly regulated process carried out by the body via many different hormones and complicated signaling pathways. The good news is that, when you are metabolically healthy, you'll know when to eat; your body will tell you.

Unfortunately, if you've been doing all the wrong things for a really long time, your internal feedback systems will be distorted, so it will take some time of following the correct principles to reset the system, but it will happen.

As health is the natural state of a body that gets what it needs and is not interfered with, our goal needs to be focused on fulfilling requirements, not counting calories.

Sure, there may come a point where monitoring food quantity becomes valuable, but it's unlikely and unnecessary for 99% of those Eating By Design.

Now What?

The long story made short is **GET STARTED!** Any of the steps listed above that you choose to implement will move you towards better health. It is the beautiful part of Life By Design. The steps are based on correct principles, meaning they all work. The more steps you add, with consistency and time, the better able your body is able to work towards its full genetic potential.

Focus on progress, not perfection. Mistakes will be made. Be ready to get back on track right away and avoid the tendency to continue down that old path.

Understand why you are choosing this for you and your family. You are doing it because, more than anything else, you value your life, you want to be extraordinary and to be everything you are capable of being you must Eat By Design.

What Do I Eat?

- Meat, fish, fowl, seafood, eggs, animal fats and oils
- Cooked plants and vegetables
- Roots, tubers, peeled potatoes
- Limit nuts and seeds
- Limit fruit (non dried and no sugar added)
- Full fat dairy if tolerated -- preferably raw

What Do I Avoid?

- Cereal grains and pseudo cereals like quinoa
- Beans
- Legumes
- Sweeteners
- Seed oils, vegetable oils and nut oils

Special Topics

Autoimmunity

Although Eat By Design is not prescriptive, we do acknowledge there are some states within the body that can come to exist through previous lifestyle choices and the damage they can create. Autoimmunity is one of those states that require a slight alteration in some of the recommended *By Design* sources of food.

Please note that the requirements of the body do not change, but how those requirements are fulfilled may need to be altered.

If your body is in a chronic state of autoimmunity, remove these sources of food:

- Seeds
- Eggs
- Dairy
- Alcohol
- Nightshade Vegetables
- Fodmaps (fructose, sucrose, polyols)

Everything at the Same Time

This is a good time to remember that, in order to be living an extraordinary life, we need to be doing **everything, at the same time, for a period of time, preferably a lifetime**. Eating By Design alone will improve our life but will not make us optimal. Life By Design is an integrative approach to achieving success built on the simple principle that having strategies to fulfill the most fundamental requirements for optimal life and health expression will lead to the best version of ourselves.

Don't Forget…

Having a clear Brain-Body Connection allows full integration of all the requirements. Each is dependent on neurological function, and inherent in each requirement is the need for synergistic activity. In order for the body to work together, a proper nerve supply is paramount.

Insert Chiropractic here.

Eat By Design is very information-dense. There are volumes and volumes of research dedicated to all the steps and principles covered in this book. Eat By Design is unique in that it is philosophically encompassing. Most people already know what to eat; they just don't know why they need to eat it. It is the same for each of the Life By Design steps and the true power of Life By Design as a life-care model.