PHILIP OUBRE, MD
FUNCTIONAL MEDICINE

Aubree Steen, FNTP

Understanding the Paleo Nutritional Lifestyle Plan

A Paleo lifestyle is one of the most publicly known nutritional protocols. From well-known functional medicine providers to social media influencers, the world "Paleo" is name dropped on a consistent basis. I'm sure you've wondered, "Why is this so popular?" Well, I'm going to dive deep into this Paleo nutritional lifestyle, answering questions such as:

- Who is this for?
- How is this beneficial?
- What are the details? Why can't I eat these certain foods?
- How can I successfully follow this?

I want to be able to give you the tools so you can feel set up for success. Always remember, regardless of whatever nutritional protocol you're following, make sure you customized it **to you**. You are a brilliant, thriving individual, and identifying what works and doesn't work for you is crucial for short-term and long-term success. You will also never hear me refer to any of these as diets, as they are truly supportive lifestyles. Alright, let's dive in!

Who is the Paleo lifestyle for?

So, who is this lifestyle for? Short answer: anyone looking to reduce chronic inflammation, improve mental clarity, stabilize hormone dysregulation, reverse gut dysbiosis, improve cardiovascular disease risk factors, improve glucose tolerance, aid in reduction of toxic burden, improve autoimmune disease, stabilize your body at a healthy weight, but most importantly, create a foundation for a healthy digestive system.

Okay, maybe that wasn't the shortest answer, but the point is this: a Paleo lifestyle can improve a vast range of negative conditions in the body by removing the foods that can contribute to chronic illness.

Any patient who is trying to heal their gut must remove inflammatory foods, and beginning with a Paleo lifestyle is the smartest way to go. When you can adequately support your journey with a nutritionally dense, nourishing protocol, you can expedite your healing. The benefits of a Paleo lifestyle extend to more than just physical, there's mental and emotional benefits, as well. When you reduce

inflammation in the gut, you are directly and positively affecting your brain - that oh so precious cargo that is in charge of everything we do.

I highly suggest anyone transitioning away from a Standard American Diet or lifestyle with inflammatory foods to begin with the Paleo lifestyle. It's one of the most thoroughly researched and sustainable nutritional protocols. The basis and structure of this lifestyle is a foundation for most nutritional protocols. If you have this mastered, transitioning into more condition-specific protocols will be much easier, fluid, and smooth. Okay, enough sweet talking. Let's discuss what the lifestyle actually consists of.

What is the Paleo lifestyle?

Believe it or not, a Paleo lifestyle is very simple. Although it was initially supported by studies of the Paleolithic man, hunters, and gatherers, the support of this nutritional lifestyle comes from modern and contemporary concepts based on biology, biochemistry, and physiology.

At its core, it's a plant-based lifestyle with two-thirds or more of your plate full of plant foods, and only one-third animal foods. While that's the core foundation of the protocol, that's not one of the most talked about "rules." However, **that is the most important** rule in this protocol. This protocol is intended to support lifelong health, and having nutrient density in the form of plants is crucial in supporting mitochondrial and cellular health. You know the mitochondria - the powerhouse of our cell!

In addition to micronutrient density, the Paleo lifestyle focuses on balancing macronutrients (fats, protein, carbohydrates) and nutrient diversity. The focus is on eating **real, whole foods** from the earth, including healthy, robust fats, pasture-raised and grass-fed protein, and low-glycemic carbohydrates. There's quite a bit of framework behind this protocol in order to promote longevity and vitality. Weight loss and improved mood are just two benefits that happen to add to the ideal nature of this protocol.

Foods to Eat:

With that in mind, the protocol consists of nutrient-dense, health-promoting foods, including:

- All meats (and all parts of the animal)
- All seafood (fish and shellfish)
- Eggs
- Vegetables of any and all kinds (the more the better!)
- Fruits (yes, of all kinds)
- Edible fungi such as mushrooms
- Herbs and spices
- Nuts and seeds
- Unrefined, unprocessed fats from animals and plants
- Probiotic and fermented foods

This seems like a short list, but do there are hundreds and thousands of different fruits, vegetables, herbs, produce, and animal proteins. Creativity and open-mindedness is your friend here.

Foods to Avoid:

These foods are not allowed on the Paleo lifestyle:

- Grains and Gluten
- Legumes
- Added sugar (natural and artificial)
- Processed foods/ingredients
- Potatoes (traditional white and Russet potatoes - sweet are okay)
- Trans fats (hydrogenated)
- Dairy

    - **Grains**
        - Barley
        - Corn
        - Durum
        - Fonio
        - Job's tears
        - Kamut
        - Millet
        - Oats
        - Rice
        - Rye
        - Sorghum
        - Spelt
        - Teff
        - Triticale
        - Wheat (all varieties including einkorn and semolina)
        - Wild rice
    - **Gluten**
        - Barley
        - Rye
        - Wheat
        - Foods derived from these ingredients

- **Legumes**
    - Adzuki beans
    - Black beans
    - Black-eyed peas
    - Butter beans
    - Calico beans
    - Cannellini beans
    - Chickpea beans (garbanzo)
    - Fava beans (broad)
    - Great Northern beans
    - Italian beans
    - Kidney beans
    - Lentils
    - Lima beans
    - Mung beans
    - Navy beans
    - Pinto beans
    - Peanuts
    - Pease
    - Runner beans
    - Soybeans
        - Including edamame, tofu, tempeh, soy protein, isolates, soy lecithin
    - Split peas
    - Tamarind
- **Added sugar - refined and/or artificial**
    - Agave
    - Agave nectar
    - Barley malt
    - Barley malt syrup
    - Beet sugar
    - Brown rice syrup
    - Brown sugar
    - Cane crystals
    - Cane juice
    - Cane sugar
    - Caramel
    - Coconut sugar
    - Corn sweetener
    - Corn syrup solids
    - Crystalline fructose
    - Date sugar
    - Dehydrated cane juice

- Demerara sugar
- Dextrin
- Dextrose
- Diastatic malt
- Evaporated cane juice
- Fructose
- Fruit juice
- Fruit juice concentrate
- Galactose
- Glucose
- Glucose solids
- Golden syrup
- High-fructose corn syrup
- Honey
- Inulin
- Invert sugar
- Jaggery
- Lactose
- Malt syrup
- Maltodextrin
- Maltose
- Maple syrup
- Molasses
- Monk fruit
- Muscovado sugar
- Palm sugar
- Panela
- Panocha
- Rapadura
- Raw cane sugar
- Raw sugar
- Refined sugar
- Rice bran syrup
- Rice syrup
- Saccharose
- Sorghum syrup
- Sucanat
- Sucrose
- Sugar
- Syrup
- Treacle
- Turbinado sugar
- Yacon syrup

- **Sugar Alcohols**
    - Erythritol
    - Mannitol
    - Sorbitol
    - Xylitol
- **Artificial Sugars**
    - Acesulfame Potassium
    - Aspartame
    - Neotame
    - Saccharin
    - Stevia
    - Sucralose
- **Processed foods/ingredients**
    - Most packaged foods
    - Acrylamides
    - Artificial food color
    - Artificial and natural flavors
    - Autolyzed protein
    - Brominated vegetable oil
    - Emulsifiers (carrageenan, cellulose gum, guar gum, lecithin, xanthan gum)
    - Hydrolyzed vegetable protein
    - Monosodium glutamate (MSG)
    - Nitrates or nitrites (added, not naturally occuring)
    - Olestra
    - Phosphoric acid
    - Propylene glycol
    - Textured vegetable protein
    - Trans fats (partially hydrogenated and hydrogenated vegetable oil)
    - Yeast extract
    -
- **Refined and hydrogenated vegetable oils**
    - Canola oil (rapeseed)
    - Corn oil
    - Cottonseed oil
    - Palm kernel oil
    - Peanut oil
    - Safflower oil
    - Sunflower oil
    - Soybean oil
- **Dairy**
    - Butter
    - Buttermilk

- Butter oil
- Cheese
- Cottage cheese
- Cream
- Curds
- Dairy-protein isolates
- Ghee
- Heavy cream
- Ice cream
- Kefir
- Milk
- Sour cream
- Whey
- Whey-protein isolate
- Whipping cream
- Yogurt

Why are These Foods Excluded?

While it's easy to have a checklist of foods to avoid, it's not as easy to eliminate them (and stay successful) if you don't understand **why.** There are four main categories of foods that, without a doubt, must be eliminated with the Paleo diet: grains, legumes, and pseudograins, processed vegetables oil and trans fats, industrially processed dairy, and refined sugars.

Grains, Legumes, and Pseudograins

There's a bit of controversy with these three loveable foods. While some people advocate for their nutrient density and fight for recognition, other people completely demonize them, saying they're only harmful to the body. The Paleo lifestyle sits right in the middle of these two viewpoints, understanding the positive and negative of these three. While, if prepared properly, there is benefit to consuming these products, the Paleo lifestyle eliminates them due to their compounds that are *known to be inflammatory, feed gut dysbiosis, provoke an immune response with leaky gut, and increase intestinal permeability.*

Grains are referred to as "cereal grains," and most commonly seen in the form of oats, wheat, rice, and corn. While these are the most popular, it's important to understand there's an entire list of these grains that must be avoided (see in previous section). Grains are the starchy steeds of grasses, but

we know them as the enticingly delicious breads, muffins, cookies, pizzas, baked goods, cupcakes - you name it.

While the agricultural revolution was a blessing for bringing these readily available seeds to end mass famine in parts of the world, we took advantage of the foods and started over-processing them, denaturing them, and removing the nutrients that are nuzzled inside of them. There are nutrients in the core of these grains, but those nutrients are a bit of a process to extract, and there are some negative effects that overpower the benefits.

Gluten is one of the most popular grains, and is recommended to be removed by almost all nutritional protocols. Like referenced earlier, it crosses the gut barrier, damaging the gut in this process. Not only does it damage the gut, it feeds the problematic bacteria instead of the beneficial ones we need for a healthy, thriving microbiome.

Legumes are the fruits and/or seeds of plants from the family called Fabacaea. Never heard of it? Makes sense. The most common name is also the Leguminosae family. Peanuts, soy, lentils, and all dried beans are considered legumes. Yes, this is your grandmother's homemade hummus, the crunchy, savory peanut butter, and the mouth-watering beans that accompany your favorite comfort foods. They're creamy, salty, and a bit controversial.

Pseudograins are similar to grains, but they're the seeds of broad-leaf plants, not grasses. This includes chia seeds, quinoa, amaranth, and buckwheat.

What are these mystery compounds that seem to wreak havoc on our body? **Lectins, saponins,** and **phytates** are the three culprits that get the most attention.

Lectins

Lectins are found in high concentration in grains, legumes, and pseudograins. There's a bit of give and take with lectins. Some aren't bad, while some are considered toxic. You've heard of the worst antagonist of them all - gluten. Gluten is considered a prolamin, one of the two types of toxic lectins. In addition to prolamins, agglutinins are another subclass of toxic lectins. The most common one is known as wheat germ. Prolamins, agglutinins. Toh-may-to, toh-mah-toe. It's a bit specific, but all you need to understand is that these subclasses are the ones that cause the most negative effects in the body.

Why are they toxic? Well, it's part of the plant's natural defense system to ward off predators and pests. Lectins are concentrated in the seeds of the plant, where grains and legumes reside. In order to ward off predators (humans being one of them), the seeds make sure we hear their warning loud and clear. <u>They love to do two things: make us sick or completely resist digestion in its entirety.</u> They're not broken down completely, and some even cross the gut barrier (cough-gluten-cough), increasing intestinal permeability and provoking an immune response.

Why is this important to avoid? Inflammation is a huge contributing factor to every chronic illness, and crossing that gut barrier is what creates food sensitivities and allergies - a double whammy. Prolamins even interfere with digestive enzymes in the intestine, responsible for breaking down sugars

and proteins, comprising the digestive process, yet again. When these enzymes are inhibited, the food cannot be broken down properly, either fermenting or putrefying in our gut.

In addition to these properties of lectins, digestive enzyme inhibitors also play a role in the way we digest our food. Digestive enzyme inhibitors are concentrated in the seeds of plants, and they interfere with the enzymes, specifically amylase and protease, break down the food we ingest. Grains tend to be higher in enzymes that inhibit protease (protein-digesting enzymes) while legumes favor amylase inhibitors (starch-digesting enzymes). **These inhibitors are the anti-nutrients** that have become so popularly discussed. They interfere with the absorption of food, stress our pancreas (the producer of specific enzymes), and lead to the improper breakdown of food itself. When the food can't be broken down, you feed those bad bacteria all over again.

Saponins

Lectins are found in high concentration in grains, legumes, and pseudograins. They're strange, and known for having a "detergent-like" quality. Like lectins, saponins are designed to protect plants from other organisms that can consume them. They actually dissolve the cell membrane of these predators. Yes, you read that right.

How does this happen? Due to the molecular structure of the saponin, they can interact with cholesterol molecules embedded in cell surface membranes and actually creates holes in the membrane of cells that line our gut. By doing this, you're allowing byproducts found in the gut to enter inside the cell. It kind of reminds me of Alien, the movie. While this may be a savage-like process, small doses of certain saponins (found in specific fruit and veggies) can help absorb minerals, while being anti-inflammatory and anti-cancerous. We're not talking about those, however. We're talking about the ones in grains, pseudograins, and legumes.

Since saponins create the holes in the cell membrane, the cell begins to lose the ability to transport nutrients. This may seem beneficial, but it's slowing down the transport of nutrients from carbohydrates and sugar from the gut to the bloodstream. It's not as if we're magically reducing glycemic load (well… kind of). We're enduring some consistent and potentially irreversible gut permeability. Yikes. When large amounts of saponins are consumed at once, you can have saponins leak into the bloodstream, affecting red blood cells, provoking an immune response, and creating inflammation.

Phytates

Alright, here is our third and final offender: phytates. This is an anti-nutrient that can actually inhibit mineral absorption and damage the gut. These antinutrients in grains may actually lead to nutrient deficiencies. When you can't absorb the minerals from food, you end up creating an imbalance and deficient stores. This has been a proven correlation with vitamin D and the enterohepatic recirculation of the vitamin, inappropriately dumping the vitamin into the urine. Phytates are the salts of phytic acid and are located in the bran of all plant seeds. Our bodies cannot digest phytates. The phytic

acid is bound to a mineral, but these specific minerals (usually zinc, potassium, and magnesium) are not able to be absorbed by the gut.

Similarly to lectins, phytates inhibit the process of digestive enzymes. What does this mean? Excessive phytates can be damaging to the gut barrier, inhibit digestive enzymes, create inflammation, have the inability to breakdown food properly, and feed overgrowth in the intestines. Like any product, the dose makes the poison. There are ways to prepare the products so they're less damaging, but we still can't change the original molecular makeup of these foods.

Industrially Processed Dairy

Ahhh… ice cream, heavy whipping cream, whipped cream, chocolate milk, cream cheese - all of the products that excite our brain, send out chemicals for comfort and that feeling of "love," and increase our inflammation to an outstanding degree. I wasn't trying to ruin your day dream, but industrially processed dairy is one of the biggest offenders in our diet. While there is some proven benefit to grass-fed, pasture-raised, and fermented dairy, the negatives end up outweighing the positives, **especially** those with gut inflammation, autoimmunity, or gut dysbiosis. Dairy is one of the most controversial topics of discussion, so we need to understand the context of this setting: the removal of dairy as a part of the Paleo protocol is intended to be removed in conjunction with other inflammatory or potentially immune-activating foods. It's a necessary part of healing, for this time and moment. There is a time and place for dairy with certain (**not all**) individuals, and it can definitely be dealt and added back in very specific ways - just not now, and not for everyone.

When we're discussing industrially processed dairy, we're really referring to the non-organic, pasteurized, homogenized, over-processed, nutrient-crushing dairy coming from cows who aren't pasture-raised. Industrially processed dairy is one of the most horrific processes for an animal who is confined to a feedlot, given antibiotics, hormones, and a lower quality of life. They're proven to have lower levels of selenium, vitamin E, CLA, omegas, vitamin A, and more. The artificial growth hormones given to cows has evidence for increasing cancer and other diseases in humans. In addition to the chemicals given to the animal, the dairy products themselves are more likely to contain harmful chemicals/additives like high-fructose corn syrup, insoluble gums, refined sweeteners, and preservatives.

What are the main contributions from industrially processed dairy? Lactose intolerance and dairy allergies are two of the most common intolerances in our society. Approximately 75% of the world's population is genetically unable to tolerate dairy, or has some sort of dairy allergy/sensitivity. **Seventy-five percent.** There's even evidence of gluten cross-reactivity with diary. A food product we eat shouldn't cause an immune response, inflammation, or damage to our gut, but dairy tends to be one of the products that does. Dairy consumption can lead to eczema, skin irritations, allergies, acne, gastrointestinal distress, pro-inflammatory markers, and increased cancer risk.

We do need to address the elephant in the room: calcium. The dairy industry has found a catchy, irresistible way to persuade most Americans to gorge on dairy products: Got Milk? These commercials were a clever way of trying to make Americans consume more dairy products, and they were successful.

They're biggest marketing ploy was convincing everyone they **needed** dairy for calcium, which is completely false. What actually happens? Industrially processed dairy has been shown to leach calcium from your bones - the complete opposite of what was advertised. Processed dairy consumption has been shown to increase osteoporosis in women.

Calcium is actually widely available in other sources: fruits, vegetables, nuts, seads, seafood, and meat. Organ meats are a huge source of calcium. Salmon, sardines, bok choy, collard greens, spinach and kale all rank as the top contributors of calcium, which figs, turnip greens, almonds, oranges, and arugula to follow. One half cup of bok choy has two-thirds the amount of calcium in 1 cup of milk!

All of this to say, the amount of nutrients, vitamins, and minerals claimed to be only achievable through dairy are found in high amounts in clean, diary-free animal products and plant-based whole foods.

Processed Vegetables Oils and Trans Fats

There's another topic that needs to be addressed: processed vegetable oils. Way back when during the era of the low-fat craze (argumentably one of the most misleading and damaging health trends of our time), highly processed vegetable oils started entering our daily consumption. The additives then skyrocketed during the processed food revolution, where highly-processed ingredients were used in mass production of packed foods in conjunction with preservatives and additives to enable a longer shelf life. These oils were helped to add a smoother consistency and "less fat" to processed foods that were genetically modified and needed to prevent coagulation (i.e. spreadable margarine). What else did they contribute to? Heart disease, cancer, metabolic disorders, neurological disorders, gastrointestinal disorders, and more.

The most common processed vegetable oils and trans fats are in the form of:

- Soybean Oil
- Corn Oil
- Canola Oil
- Sunflower Oil
- Cottonseed Oil

They are unsaturated oils extracted from seeds, more specifically, grains and legumes. Yes, those are the two problematic categories we just dissected earlier in this discussion. **These are the worst fats we can consume and put into our healthy, happy bodies**. However, we are misled as an American society, since we have huge corporations and educational institutes who have a claim that processed vegetable oils can lower LDL cholesterol. These oils are highly processed, as they require extensive lengths just to get the oil into a usable form. High heats, chemical solvents, and deodorization are just a few methods involved in extracting these oils. Big food giants love them: they're cheap and add bulk to their product.

Fats composition is something we all need to consider. Ideally, we want our diet to maintain a healthy ratio and balance of fats. If you can aim for 30% saturated fats, 10% polyunsaturated fats

(omegas), and 60% monounsaturated fats (e.g. olive oil), you can support your health in a proactive way. **These are just guidelines**, and should be individualized for each person by a healthcare professional.

There are two fatty acids that are essential for the body: Linoleic (Omega-6) and Alpha-Linolenic Acid (Omega-3). The ratio of Omega-3s to Omega-6s is a factor we must make a priority when rationalizing fats in our diet. The ideal ratio is 1:1, but our American standard is now 1:16, crippling our health and damaging our cells. This increase occurred with a high consumption of processed grains, packaged foods, and hydrogenated fats. Omega-3s are considered anti-inflammatory fats. They contribute to anti-inflammatory processes, fight depression and anxiety, promote brain health and vitality, improve risk factors of heart disease, and more. Fats created hormones, are the building blocks of our cell wall, increase satiety, and are necessary for our brain to function optimally (with no brain fog.)

Omega-6s are necessary for sustaining life, but are harmful to our health when eaten **in excess**, **or not having adequate Omega-3s**. They contribute to the pro-inflammatory pathway. While we require the ability to inflame and "de-flame", an excess of Omega-6s can spark an ongoing, dangerous, constant pro-inflammatory process in the body. It can irritate our gut lining, diminish our ability to fight infections, add stress and inflammation to our bodies, and contribute to chronic diseases such as cancer, cardiovascular disease, osteoporosis, autoimmunity, and obesity. Ensuring you're consuming high-quality Omega-3s will lead your body to naturally balancing out that ratio. If you feel as if you're consuming enough, ask your practitioner for a high-quality grade of fish oil.

Foods high in Omega-3s are:

- Wild-caught fish
- Walnuts
- Flaxseeds
- Grass-fed animals
- Seaweed
- Hemp
- Pumpkin
- Algae
- Pasture-raised eggs

What are trans fats? While talking about the quality of fats, we have to lump in the topic of trans fats aka hydrogenated fats. There are multiple types of adulterated fats: hydrogenated fats, partially hydrogenated fats, highly processed vegetable oils, and fried fats. Hydrogenation is the process in which a liquid unsaturated fat is turned into solid by adding hydrogen. You're literally changed the molecular structure. This is how trans fats are made: they're the byproducts of the hydrogenation process, which makes them toxic. These are widely found in processed and packaged foods you see covering the supermarket shelves. Why are these bad exactly? They can **slow your metabolism, lower good cholesterol, cause diabetes, heart disease, obesity, increased inflammation, and contribute to cellular damage**. You can usually identify these on a label by looking for "hydrogenated" or "partially hydrogenated." However, you can also find them primarily in these sources:

- Fast Food
- Canola Oil
- Corn Oil

- Cottonseed OIl
- Grapeseed OIl
- Margarine and Butter Substitutes
- Nonstick Cooking Spray
- Palm Kernel Oil
- Peanut OIl
- Safflower OIl
- Shortening
- Soybean OIl
- Sunflower Oil
- Vegetable Oil

The best way to avoid these horrific fats is to increase your whole-food based foods, and try to increase cooking at home.

Refined Sugar

Sugar… yum. My brain just lights up when I see the word. Sugar is addictive, literally. It lights up the areas of our brain that are in control of addiction, just like methamphetamine does. It may seem a bit dramatic, but it's the reality of how sugar is a drug. It's the reason why we can't say "no" after one bit, why we finish the entire box of cookies, and how we lick the spoon from baking. It's the reason our eyes light up when we see ice cream, and why children will kick and scream if they don't get dessert. Do we do this over dark, leafy green vegetables? I mean, a few of y'all may, but we don't use vegetables to bribe one another to finish our chores, run a marathon, or ace a test. We use sweet, sugary, delicious treats. The only problem is that these sweets are killing us slowly.

These sugars are added into most of our processed and packaged food due to the addictive property they create. If a corporation or company can get you hooked on their product, **they win.** Not only does processed cane sugar contribute to this addiction, other sweeteners like high-fructose corn syrup, and artificial and noncaloric sweeteners do the same. These look like the sucralose, aspartame, and stevia. They all have an effect on our blood sugar, regardless of what you have heard.

Sugars are also referred to as simple carbohydrates, or simple sugars. They include glucose, fructose, galactose, lactose, and maltose. That may sound a bit foreign to you, but they are naturally found in fruit, dairy products, and natural sweeteners like honey. The sugar in fruit is a bit different, as it has other nutrients (primarily fiber) that slow down the absorption. When we're addressing sugar avoidance in this guide, it's directed towards refined sugars like **cane, beet, and corn sugars** and their counterparts, such as **high-fructose corn syrup.** These sugars are digested and absorbed rapidly, having a triggering effect on blood sugar. The excess of sugars increases our blood sugar, directly affecting insulin and the inflammation in our body. The higher the insulin surge, the more contribution to

inflammation in our body. There's been a direct correlation from high insulin levels to increased C-reactive protein, or CRP, a major inflammatory marker.

One of the main sugars we need to watch out for is **fructose**. It's problematic due to the absorption in our bloodstream and how it affects our metabolism. Fructose is difficult for our gut to absorb, doesn't stimulate a proper release of insulin, and is metabolized almost exclusively in the liver. Once metabolized, the end products are triglycerides, uric acids, and free radicals - all damaging to our overall health. High fructose consumption has been linked to metabolic disorders, hypertension, fatty liver disease, type 2 diabetes, insulin resistance, and more. This wasn't a huge issue until we started producing mass quantities of high-fructose corn syrup. This toxic ingredient has been added to processed and packaged foods for it's inexpensive processing and extreme sweetness.

With all of this information, it's important not to demonize fruits. We don't need to avoid **all** fructose, just **high and excessive** amounts. Small amounts of fructose are beneficial and can reduce blood glucose levels. Unrefined fructose sources contain beneficial nutrients, like those found in honey and fruit. Here are some of the highest fructose containing foods:

- Agave Nectar
- Coconut Sugar/Nectar
- Chicory Root Sugar
- Sucrose
    - Cane Sugar
    - Beet Sugar
    - Maple Syrup
    - Molasses

Some of the fruits that are lower in fructose include:

- Apricots
- Blackberries
- Cantaloupe
- Grapefruit
- Nectarines
- Peaches
- Plums
- Raspberries
- Strawberries
- Watermelon

All examples of sugars to avoid are in the beginning of this guide for reference. So, enjoy some sweetness, but be wary of glycemic index, the amount of fruit you're consuming, and how to balance your macronutrients properly.

What Do I Do From Here?

Since I've explained what to avoid, I feel as if it would be a disservice to dump a bunch of information (beneficial as it may be), then leave you with the pieces to put together. This may seem overwhelming, but I promise you implementing these become second nature with time. I would tackle this protocol by steps, not all at once. Now, if you're type A and *want* to replace all of these at once, then you can implement steps as quick as possible. In my Grocery Store Tour educational series, you learn how to navigate the grocery store, how to transform your pantry, purge your refrigerator, read labels, and more. If you don't have access currently, following this steps/guidelines may be beneficial:

1. **Identify where these outliers are in your home**:
    a. Go through your pantry and refrigerator and identify which products have gluten, dairy, processed sugar, and the paleo "illegal" foods.

2. **Organize them into a list and get input on the best replacement** (non-dairy milk, nut-based cheeses, grain-free crackers, etc.)
    a. Ask your friends or acquaintances for their opinion on tasty products.
    b. Speak with a functional nutritionist to see their options and what they recommend.
    c. Check out paleo, clean-eating blogs that help navigate you to the best resources.
    d. Have fun and investigate yourself! Thrive Market is a fantastic online resource for easily attainable Paleo foods. Remember: it's all trial and error with finding what *you* think is delicious.

3. **Put together a shopping list of what items you can easily replace**
    a. Organization is key, here. It helps keep track without feeling overwhelmed.

4. **Go slow and at your own pace**
    a. I can't stress this enough: please go at what works **for you**, no one else. If you're the Type A kind of person and need to jump all in, go for it. However, most of us aren't like that, and baby steps are the key to long term sustainability and success.
    b. Remove gluten and dairy first, then move on to grains and legumes.

All tips aside, **it's okay to feel overwhelmed.** Remember this when transitioning. You're making a huge leap towards better health, but also into an area that isn't familiar, mostly uncharted territory. Give yourself grace during this process. I love the 90/10 rule. If we're trying or doing 90% of what we're supposed to be doing (steps towards functional nutrition in support of our body, implementing mental and emotional support/mindfulness, and improving our physical health with exercise), we are allowed to

have that wiggle room. The wiggle room is the 10%. It lets us have mistakes and accidentally fall off course, because we all do, and that's the beautiful part of finding what works for you. Good luck!