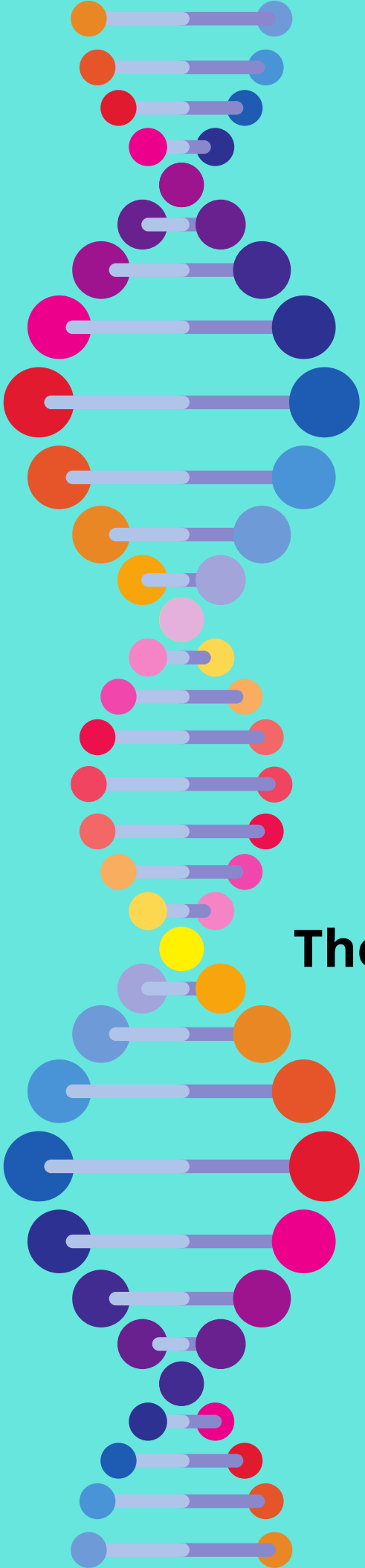

HOW TO START A KETO DIET THE RIGHT WAY

The 3 "Must Do" Steps For Success

MARY BEAUCHAMP, R.N.

WWW.KETOGENICDIETCOACH.COM

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Hi, I'm Mary!

Thousands of people are discovering the health benefits of the keto (ketogenic) diet. Many people have been told by their doctor to try the keto diet, but they were not properly guided as to how to do it safely and effectively. It is not difficult to do, but you must do it correctly to get results. I created this guide book to support you in understanding and executing this diet in the most safe and effective way possible. My intention is to help you avoid the most common mistakes that I see people making and support you moving forward on a clear path to your success and personal transformation.

The keto diet helps to restore metabolic function which is at the heart of energy production in the body. By changing your fuel source, we can influence how our body produces energy, reversing metabolic syndrome, which is often characterized by weight gain, diabetes and fatigue.

Over the last 25 years, I've been helping people successfully shift their metabolism over to burning fat as a way to quickly regain control of their health. As a result, I have seen many people reverse the debilitating effects of chronic illnesses stemming from blood sugar imbalances.

My goal is to help as many people as I can, take back control of their health and happiness so they can fully enjoy their life, free of unnecessary illness and disease.

I am not a doctor and these suggestions are based on my personal experience only, this information is in no way intended to be considered medical advice or an attempt to diagnose or treat disease. You should only change your diet if your doctor has recommended it and you should not begin a keto diet or make any other dietary changes if you are taking ANY prescription medications whatsoever! The keto diet will drastically effect the optimal dosages of your medications -- especially inulin! You should not begin a keto diet if you are pregnant or breastfeeding.

I hope you enjoy your journey to better health.

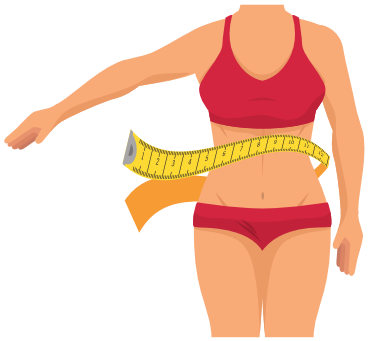
~ Mary

BENEFITS OF KETO

INCREASED ENERGY

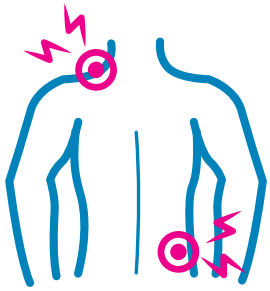
METABOLIC FLEXIBILITY

EFFORTLESS WEIGHT LOSS

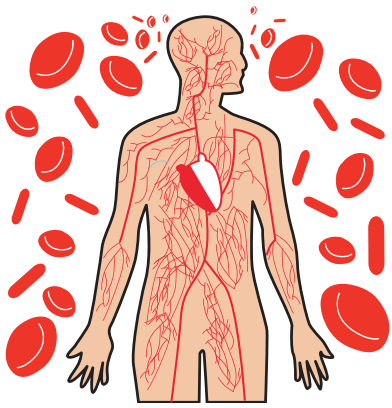


ENHANCED BRAIN FUNCTION

REDUCED INFLAMATION (PAIN)



BALANCE BLOOD SUGAR



THE POWER BEHIND THE KETO DIET

The ultimate goal of the "keto" diet is to restore the healthy functioning of the metabolism. When you are "keto-adapted" your body has access to fat as a fuel source as well as glucose (from carbohydrates).

You're likely running on glucose (from carbohydrates) as your primary source of energy. Most people are as a result of misinformation about nutrition.

Most people only have access to one fuel source -- sugar (glucose), whereas folks who are keto-adapted have access to two types of fuel -- sugar and fat. When you're metabolism (energy production system) has multiple sources of energy, it is more flexible. This is the true power of the keto diet.

Being able to switch back and forth between fuel sources is key to taking control of health. This is one of the best known secrets to longevity because it cultivates resilience. In a state of ketosis, the body begins to clean itself out (detoxify).

The fastest way to access fat as a fuel source is to turn off insulin production. Insulin is the fat storage hormone and as long as you triggering insulin when you eat, you're in a perpetual state of fat storage and you don't have access to fat for energy. In otherwords, insulin tells your body to store fat and prevents it from burning fat. To switch over to burning fat, you have to turn off insulin production and this requires reducing carbohydrate intake. The keto diet is a high fat, low carb diet that is moderate in protein. Excess carbs and protein trigger insulin and stop fat metabolism. Period.

To turn off insulin production, you have to reduce your carbohydrate consumption, because all carbohydrates convert to glucose in the blood. Glucose in the blood is what triggers insulin to be released into the blood stream. With a keto diet, insulin production is turned off and fat burning is turned up.

COMMON QUESTIONS

What is a ketogenic diet?

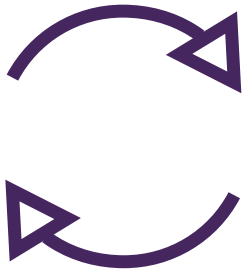
A ketogenic diet is a low carbohydrate diet that promotes the metabolism of fat, resulting in the production of ketones and the onset of ketosis.

What is ketosis?

Ketosis is a normal metabolic adaptation that occurs when the body burns fat for fuel in the absence of carbohydrates.

How much time will it take to start burning fat for fuel?

Shifting into your natural fat burning mode (keto-adaptation) typically takes 14 days. However, there are special tips and tricks that can speed up this process.



Won't eating fat make me fat?

No! Over 80 years of scientific research proves that eating fat will not make you fat. On the contrary, eating excessive amounts of carbohydrates will make you fat! It is important to note that insulin is the fat storage hormone, making carbohydrate reduction necessary for blood sugar balance, ketosis, weight loss and detoxification.

GET SUPPORT ON YOUR HEALTH JOURNEY

Here's How To Master The Keto Diet In Just 5 Days Without Any Experience At All.

End your confusion.
Stop wondering what to eat, when to eat and how much to eat.

YOU'RE INVITED!

To register
(and find out more)

CLICK HERE

MYTH BUSTING

This way of eating requires spending lot's of extra time in the kitchen.
The lifestyle practices outlined here will actually save you hours in the kitchen because you will need to pepare less meals, altogether.

The ketogenic diet is a high protein diet and you have to eat lot's of meat. **The ketogenic diet is not a high protein diet. It is a moderate protein diet which, for most people, will seem like a low protein diet because most people are used to eating 3-5 times the amount of protein they actually need.**

Missing meals or snacks will increase hunger and that is unbearably uncomfortable and NOT sustainable longterm. By properly timing your meals, it will actually decrease your hunger levels. This is one of the fastest ways to reduce blood sugar and insulin and support the body in detoxification and rejuvenation known as autophagy. Autophagy is the natural, regulated mechanism of the cell that removes unnecessary or dysfunctional components. It allows the orderly degradation and recycling of cellular components.

OK! Let's get started!!

STEP 1
TIME YOUR MEALS

Consume all of your calories within a 6-8 hour window of time during the day.

Stop eating 3 hours before bedtime.

The goal here is to deplete your glucose stores and shut down insulin production so you're metabolism can switch over to burning fat.

This practice is known as intermittent fasting.

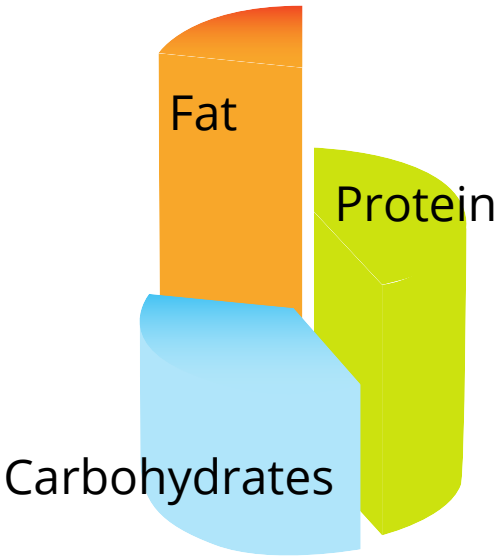
STEP 2
REDUCE CARBOHYDRATES

Download Cronometer on Your Phone and/or Laptop and

Start Tracking Your Carbohydrate Intake!

At first, you have to track your macros or you will never know how much you should be eating of each macronutrient food group. Tracking is the only sure way to know! Otherwise, you are just guessing. Most people will eventually produce ketones while consuming 20-50 grams of carbs a day.

IT'S FREE! GET STARTED NOW...



Click Here To Access Cronometer

The Three Macro Nutrients

There are basically three food groups called macronutrients that you need to know a little bit about if you want to be successful and understanding how to get into ketosis. They include carbohydrates, proteins, and fats. Each one influences metabolism differently.

Fiber, which isn't actually a nutrient, also plays a role somewhat so I'll mention it here, too. It's important to know how each of the macros is converted into energy and how each one impacts your blood sugar. Then, you will be in control of what you eat and you won't have to guess.

Carbohydrate

Among the three macros, protein and fat are considered essential nutrients, while carbohydrates and fiber are not. We cannot live without essential nutrients -- but we can live without nonessential nutrients because our body can produce them on it's own and they don't have to come from food sources. Carbohydrate is broken down in the body into individual glucose molecules and since the body can produce its own glucose in the liver, carbohydrate is not considered an essential nutrient. You can survive and thrive without any carbohydrate (or fiber) in your diet, whatsoever. This is known as a carnivore diet. It consists only of animal meat and animal fat and it's what our ancient ancestors ate. That's how we know it's ok to eat this way because we evolved eating this way for millions of years.

How is it possible that we (even medical professionals like myself) have all been taught to believe that we should be eating mostly the single macronutrient that is not essential for health? How could it be that the entire food pyramid is based on this flawed idea? You need to understand and correct the false belief you hold about eating carbohydrates as the staple food in your diet for creating "good" health. This could not be further from the truth!

Carbohydrate is not an essential nutrient. There are essential fatty acids (fats) and essential amino acids (proteins), but there is no such thing as an essential carbohydrate. If there were no carbohydrates in your diet, your body would utilize fat and protein to satisfy all its energy needs. ~Dr. Bruce Fife, MD, The Coconut Ketogenic Diet Effects of Carbohydrate on Blood Sugar

Effects of Carbohydrate on Blood Sugar

When you eat carbohydrates (carbs) they are broken down into individual glucose molecules. Blood glucose and blood sugar essentially mean the same thing. Eating excess carbohydrates results in elevated blood sugar levels. If this is all you remember from reading this book, that's enough. You may be wondering how many carbohydrates you should be eating every day. That's a very good question. Let's look at how to count carbs, first. Then, we will look at the quantity.

Start by reading labels the next time you're in the grocery store. You'll find the "total grams" of carbohydrate on the back label of any packaged food item. Produce, such as fruits and vegetables, can be tracked using the Cronometer application. Download it now on your phone. See The 5 Day Keto Challenge for instructions on exactly how to set up your profile for accurate tracking of your biometrics. I will walk you through the whole process.

Effects Of Fiber On Blood Sugar

There are two schools of thought on calculating total carbohydrates. One considers the role of dietary fiber and the other does not. Either way, you should understand the role of fiber in your diet so you can decide how you want to keep track of the carbs in your diet.

Fiber, unlike carbohydrates, does *not* get broken down into individual glucose molecules and is *not* absorbed into the bloodstream like other nutrients. It has no nutritive value and it does *not impact your blood sugar*, whatsoever. It passes right through the digestive tract, undigested.

Essentially, fiber slows down the absorption of glucose. In other words, high fiber foods help to control blood sugar. Eating more fiber allows you to eat more carbohydrates without raising your blood sugar as much. Processed foods are the worst for your blood sugar because they're usually loaded with sugar and contain no fiber.

Carbs that contain higher amounts of fiber will elevate your blood sugar more slowly than carbs that don't contain any fiber, like hard candy, for example. A lollipop is very high in sugar and contains no fiber at all. Thus, the difference between a simple carbohydrate and a complex carbohydrate is in the fiber content. Carbs without any fiber are called *simple carbohydrates*. Carbs with fiber are called complex carbohydrates.

Complex carbs are whole foods that contain natural fiber, like an apple. Simple carbs are the most destructive to your health because they contain high concentrations of sugar, like refined white sugar and high fructose corn syrup. These sugary foods contain zero fiber and therefore they quickly elevate blood sugar.

Counting Carbohydrates

Complex carbohydrates are called “complex” because the fiber is left intact. Whole foods do have carbohydrates, but they also contain the fiber of the plant. The important difference here is that whole foods are unrefined and unprocessed. Whole foods are in their natural state and have not been altered by humans or machines.

In summary, you want to choose whole, real foods, and avoid simple processed sugars. James W. Clement, in his book called, The Switch, identifies that within populations of indigenous cultures (particularly those people living to be over 100 years old), the further people moved away from living “off the land”, the sicker they became and the sooner they died. Animal protein and animal fat, in the absence of carbohydrates, never led to health problems in our ancestors. It wasn’t until the introduction of processed sugar and processed seed oils (which are relatively new to the human diet) that we’ve seen epidemic proportions of obesity, heart disease, cancer, and diabetes, all of which are problems of glucose dysregulation and metabolic dysfunction.

When it comes to calculating dietary carbohydrate intake, there are differing opinions on this subject. Net carbohydrate refers to the total carbohydrate in a food minus the total grams of fiber in that food. When tracking total carbohydrates in your diet, there is no calculation that needs to be done. Tracking net carbs will allow you to consume more carbs per day. However, tracking total carbs will give you a more accurate picture of your total sugar intake. In short, fiber slows down the absorption of glucose.

Tracking net carbs (subtracting the fiber you eat) allows you to eat more carbs throughout the day. For some people, who are extremely carbohydrate intolerant, they may not have success with weight loss or getting into ketosis when counting net carbs. If you are struggling to lose weight, then start tracking total carbs, not net carbs. The other potential problem with counting net carbs is that it allows you to eat more fiber and many people cannot handle that much fiber in their diet.

Contrary to popular belief, fiber can slow digestion, creating intestinal distress, gas, bloating, and constipation. Yes, that's right, fiber can be very constipating for some people.

Calculating your carbohydrate intake is something you should know how to do. If your profile is set to track net carbohydrates, Cronometer will make this calculation automatically upon entering a serving of food into your food diary. However, if you're standing in the grocery aisle trying to figure out what to purchase, you'll want to know how to do the math in your head. It's really easy. Here's the formula:

TOTAL CARBOHYDRATE - DIETARY FIBER = NET CARBOHYDRATE

Here's an example of what it looks like. In this case, the total net carbohydrate for this food item would be 33 grams (37 - 4 = 33).

Nutrition Facts

8 servings per container
Serving size **2/3 cup (55g)**

Amount per serving
Calories **230**

	% Daily Value*
Total Fat 8g	**10%**
Saturated Fat 1g	**5%**
Trans Fat 0g	
Cholesterol 0mg	**0%**
Sodium 160mg	**7%**
Total Carbohydrate 37g	**13%**
Dietary Fiber 4g	**14%**
Total Sugars 12g	
Includes 10g Added Sugars	**20%**
Protein 3g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 235mg	6%

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

Pay close attention to the serving size (located at the top of the facts panel) so you understand how much you can eat before you reach your carb limit. **Total carbohydrate refers to each serving and there can be many servings per container!** So be aware. Notice there are 8 servings per container in this example. Foods might appear to be low carbs, but when you look at how many servings there are in the package, you may find the food is not actually a low carb food at all! Quantity does matter!

STEP 3
INCREASE HEALTHY FATS

Healthy Fats For The Human Body

Healthy Solid "Saturated" Fats

- Organic Grass Fed Ghee (clarified butter)
- Organic Grass Fed Butter
- Chicken Fat
- Duck Fat
- Lamb Fat
- Suet
- Beef Tallow
- Lard
- Bacon Fat

Fat

Because fat calories are so dense, when you increase your intake of healthy dietary fats, you'll need to eat much less (quantity) of food to feel satisfied! Fat is double the density of protein or carbs, so it provides greater feelings of satiety or fullness. Protein and carbs contain 4 calories per gram, while fat contains 9 calories per gram, which is more than double the amount of energy compared to a gram of carbohydrate or protein.

Simply put, you will eat a lot less volume of food on a low carb diet. Most people learn this the hard way, feeling overstuffed and even a bit nauseous after increasing their fat intake, too quickly. Ideally, you should increase your fat intake gradually. It can take time for your digestive tract to get acclimated to consuming more dietary fats, especially if you have a clogged up liver and gallbladder from eating the wrong type of fats, or a low-fat diet. In either case, the organs, which break down healthy fats, may have been shut down for years if you have a history of eating seed oils. Get toxic seed oils out of your diet. Period! Whether you're eating a keto diet or not.

Unfortunately, today, most people are afraid to eat "real fat" because we've all been taught to believe fat is bad for us. They fear fat. As a result of not getting enough of the right kind of fats, we have become a fat starved, obese nation. When the body does not have access to healthy fat, it holds onto stored body fat, making it very difficult or impossible to lose weight. It's time to ask yourself what beliefs you are currently holding around eating fat, so you can dispel any of your false beliefs and get your health back on track. Are you afraid of eating fat? Be honest.

The good news is, you should never feel hungry or like you're starving yourself on a low carb diet. In fact, one of the biggest challenges with a low carb or ketogenic diet is actually consuming enough calories throughout the day because appetite diminishes. A ketogenic diet is NOT a calorie-restricted diet.

The bulk of calories on a classic ketogenic diet come from fat. Those calories are incredibly important! The body is smart and it will adapt to a lack of calories. You have to consume enough calories daily so your metabolism doesn't slow down to compensate for the lack of energy coming in. I see this happen to a lot of (mostly) women who still believe that eating less is the way to lose weight. This leads to hormone imbalances and ironically, weight gain and fatigue.

Not eating enough calories can slow weight loss and destroy your metabolism. Tracking your macros will ensure that you're eating enough calories every day. It's easy to stop eating when your body starts producing ketones because ketones suppress appetite. You can't rely on your appetite to meet your nutritional needs on a keto diet.

I often get a blank stare of disbelief when I say this to my clients. Then, the question ultimately arises, "what am I supposed to eat, then?" I have found that it's easier to drink fat than it is to eat enough of it, especially once you reach your goal weight and have to increase your fat intake even more. In my house, we love high-fat hot drinks, broths, and soups. I have spent many years perfecting delicious high fat, whole food, nutrient-dense drink recipes. They take minutes to make, saving you hours in the kitchen.

Dietary fat is required for life. It is an "essential nutrient" that must come from our diet. This is why the term *essential fat* or *essential fatty acid* has been given to describe these vital nutrients which cannot be produced by the body and must come from food sources. Every cell in the body has a fatty layer on the outside of it called the lipid layer. It acts as a barrier or gatekeeper, regulating the exchange of important information moving in and out of the cell. The cell wall protects the cellular material inside from free radical damage. When we eat the wrong type of fats or not enough of the right type of fats, our cell walls become weakened and this compromises cellular activity.

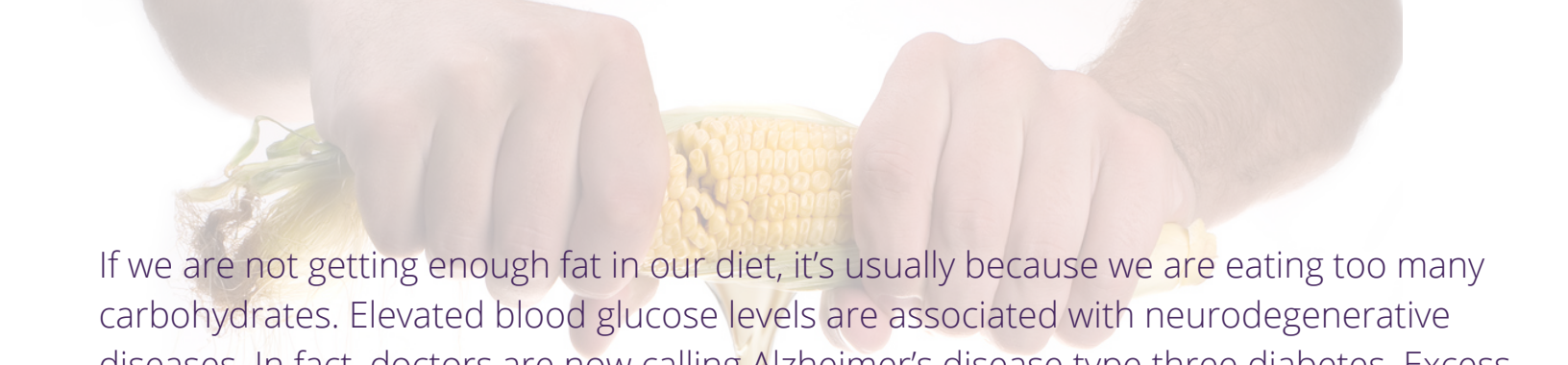
If the cell wall is weakened, dangerous substances like free-radicals, pathogens, ROS (reactive oxygen species), and toxins can enter the cell and harm the precious DNA, mitochondria, or other important cellular structures inside. A strong, healthy cell wall protects the cellular machinery inside the cell from being damaged. When we eat healthy saturated animal fat from grass-fed ruminant animals, our body has the perfect material to build strong cell walls.

The brain and nervous system are particularly reliant on healthy fats to maintain their structural integrity and conductivity, enabling information to travel with speed and accuracy throughout the nervous system. If we do not eat enough healthy fats, our brain and nervous system suffer.

Contrary to what you might think, the inflammatory process that's involved in the degeneration of your arthritic knee or your coronary arteries is the very same one that leads to the deterioration of the human brain. ~ Dr. Perlmutter, Grain Brain Cookbook

DO NOT EAT THESE OILS!

This is what a soya (soy) bean has to go through in order to get the oil out. Notice the machinery involved. If industrial machinery is needed to manufacture the oil, do not consume the oil!



If we are not getting enough fat in our diet, it's usually because we are eating too many carbohydrates. Elevated blood glucose levels are associated with neurodegenerative diseases. In fact, doctors are now calling Alzheimer's disease type three diabetes. Excess sugar in the diet along with the consumption of unhealthy fats (that are touted as healthy) mainly processed seed oils (aka vegetable oils) are the cause.

Remember that those with diabetes are at least twice as likely to develop Alzheimer's disease and that obese people are at a much higher risk of impaired brain function. ~ Dr. Perlmutter, MD, Brain Maker

Liquid Vegetable Oils

Vegetable oil is a clever name given to oil that comes from a seed, probably to make them sound like "health foods". Really, vegetable oils should be called seed oils. Evolutionarily, humans didn't graze on the seeds of plants very often. Typically seeds are very difficult to harvest. Nature has given seeds layers of armor to protect them from being eaten so they can reproduce. They typically have tough shells, unpleasant bitter flavors, and layers of invisible toxins to repel insects and other predators.

It wasn't until seeds were processed and ground into flours, like acorns for example, that humans began to make food out of seeds. Native peoples learned long ago that eating an acorn right off the tree was not only dangerous but tasted awful. Without proper preparation, most seeds are deadly. It takes a great number of seeds to make a tiny amount of seed oil. Evolutionarily, we would never consume the oil from seeds at the rate we do now, in the form of seed oils. Seeds oils contain high concentrations of linoleic acid, a polyunsaturated fatty acid that the body does not produce on its own. Linoleic acid is an omega-6 fatty acid. A small amount of linoleic acid is needed in the body, but excess linoleic acid is a metabolic nightmare.

To remove oil from seeds requires high heat and high pressure. In some cases, this process involves harsh chemicals, bleach, and deodorizers. There is no other way to get oil out of a seed. It wasn't until the manufacturing of seed oils for human consumption that the massive decline in human health began. Many doctors believe that seed oils are solely responsible for the global health crisis.

DO NOT EAT THESE FOODS!

Safe Fats For Cooking

- butter
- tallow
- ghee

To learn how to make your own tallow and discover many more recipes, subscribe to my YouTube Channel: http://www.youtube.com/c/MaryBeauchampRN

CLICK HERE.

Unlike saturated animal fats, seed oils (aka vegetable oils) are extremely susceptible to oxidation because their cellular bonds are very weak. Essentially, they get damaged easily and once they become damaged, they look like a foreign invader and the body mounts an immune response against it. This is the basic underpinning of autoimmunity where the body attacks itself. Oxidative stress is like what happens when water rusts metal. You do not want rusty cell walls or organs! When the cell walls are rusty they are weakened and this eventually leads to damage of the mitochondria, DNA, and other important cellular structures normally protected by the cell wall.

Once the mitochondria are damaged, energy metabolism is compromised. But vegetable oils and in particular linoleic acid, not only destroys the metabolism and the immune system, but it also destroys the digestive tract. Processed vegetable oils have a molecular structure that is different from that of natural fats. They are not natural. Therefore, they don't trigger the release of bile from the gallbladder, which is needed to break down and digest fat. This causes multiple problems. These toxic fats eventually make their way, undigested, into the colon where they sit, decimating the tiny little microbes that live there, paving the way for irritation, inflammation, gut dysbiosis, leaky gut, and irritable bowel syndrome. These mutated, adulterated fats leak out through the inflamed gut wall (leaky gut), where they attach to organs, leading to autoimmune reactions and cancer. With autoimmunity, the body attacks its own organs as a last-ditch effort to get rid of the toxins stored there. Meanwhile, bile becomes the villain because of its accumulation in the gallbladder which commonly causes inflammation, pain, and gallstones to form. The common treatment is to remove the gallbladder, however, the cause of most gallbladder problems is eating the wrong kind of fat.

Many doctors and scientists argue that seed oils are responsible for brain and nervous system degeneration, anxiety, depression, autism, mental illness, autoimmunity, obesity, and heart disease. If you want more scientific research on this topic, I recommend you look up Natasha Campbell-McBride, Tucker Goodrich, Nina Teicholtz, Chris Knobbe, Gary Taubes, and Paul Saladino. There are thousands of doctors who are debunking the medical myth that natural saturated animal fat is bad for humans. These are just a few of the dedicated experts of our time, committed to looking at the real science behind dietary fats. They all agree that seed oils are toxic to human health. I have only scratched the surface of the damaging effects of seed oils here. It's up to you to further investigate this and become a truly informed consumer if you have any doubts.

Unfortunately, seed oils are considered "safe" by many keto experts, but I would argue that most are not safe at all. Why? Because they are processed oils. If it requires a high tech machine or high heat to get the oil out of the plant, simply put, don't eat it. This distinguishes cold-pressed oils from harmful seed oils. Very few plant oils are cold-pressed, with the exception of olive oil, coconut oil and very rarely you will find cold-pressed sesame seed oil and cold-pressed avocado oil. You have to diligently hunt these cold-pressed oils down, reading all sides of the label. And even if you find a cold-pressed oil, you must be aware that they still contain higher levels of linoleic acid. These oils should be used sparingly because the chemical bonds are weaker, making you more susceptible to oxidative cellular damage. In essence, liquid oils are less stable and therefore less healthy for humans, than solid saturated fats.

Processed vegetable oils should be vehemently avoided at all costs if you want to improve your health and lose weight! I would go as far as to say that all plant oils (even cold-pressed oils) should be avoided by anyone with autoimmune diseases and chronic inflammatory conditions. In a stunning interview with Paul Saladino and Tucker Goodrich, titled *How Seed Oils Destroy Your Mitochondria and Lead To Chronic Disease*, Tucker explains how linoleic acid accumulates in your cells and is highly destructive. He said in the interview that, "Oxidized linoleic acid is indistinguishable to your body from a bacterial infection." He also said that when you consume linoleic acid, "You are creating an autoimmune condition in your body and that's what's causing macrophages to come in."

Tucker examined many scientific studies demonstrating, "If you put leukocytes into a vial with linoleic acid, they turn all the linoleic acid they can get their hands on into leukotoxins." Leukotoxins are toxic particles that our immune system goes after and tries to get rid of by sending out an army of soldiers called macrophages. The macrophages come in and attack these toxic cells which lead to inflammation and the production of cytokines. This is the underlying cause of a "cytokine storm" which is when the immune response goes on overdrive.

What was most fascinating to me about this interview was not the avalanche of scientific evidence that Goodrich and Saladinao discussed, but rather hearing over and over how scientists go about inducing disease in the lab animals. The way they cause acute respiratory distress syndrome (ARDS), obesity, blood clots, heart failure, asthma, liver disease, and diabetes in animals--was by feeding them linoleic acid from seed oils!

Tucker and Saladino agreed that populations that have seed oils in their diet seem to suffer from the "exact same processes going on" within the mitochondria, resulting from the oxidation of linoleic acid. Tucker goes on to say that he sees an obvious mechanistic link going on between all chronic diseases. I highly recommend checking out this interview on YouTube with links to the many scientific studies on mice and humans all pointing to the dangers of linoleic acid consumption.

Are All Plant Oils Bad?

As far as plant oils go, olive oil and coconut oil are the safer choices. Both of these are easy to find cold-pressed and both are low in linoleic acid; therefore, they are more protective to the cells and promote fat burning. I would still advise using these oils in moderation and some people will find that they cannot tolerate any plant oils at all. Animal fats should make up the majority of your dietary fat intake. Evolutionarily, humans would never consume high amounts of seed oils and would never be exposed to high levels of linoleic acid and can be safely consumed for most people.

Cooking oils and vegetable oils are extracted from plants. All plant oils contain very fragile polyunsaturated fatty acids which are easily damaged by heat, light, and oxygen. That is why Mother Nature has hidden them away very carefully in the cellular structure of plants; in their oily seeds, leaves, stems, and roots. When we eat plants in their natural form we get these oils in their pristine state and they are very good for us. ~ Dr. Natasha Campbell-McBride, Put Your Heart In Your Mouth: Preventing Atherosclerosis, Heart Attacks and Strokes

Fats To Keep Cold

There is one simple rule of thumb that will help you navigate through the confusing maze of bad fats and good fats: All liquid oils extracted from plants should be avoided unless they say cold-pressed on the label. Period. Without exception, you have to read every label! Not just the front label--but the back label too! Never assume that a liquid oil is cold-pressed unless it says so on the front AND back label. There are only a few plant oils that are safe to eat in moderation. Of these oils, coconut oil and olive oil are the lowest in linoleic acid.

Remember, solid fats are saturated fats. Liquid fats are unsaturated fats. Solid fats have stronger molecular bonds. That's what makes them solid. In short, saturated fats protect your cells; and liquid fats can be very damaging to your cells.

You will find coconut oil that is refined, bleached, and deodorized. Don't buy it. They do this because people don't like the smell and taste of coconuts. Yes, unprocessed coconut oil smells and tastes like coconuts, imagine that! As far as plant fats go, coconut oil is perhaps the most protective of all. It is a solid fat. You won't find another solid (saturated) plant fat, making coconut oil unique. Because it is a saturated fat, coconut oil is the only plant fat safe for heating. Coconut oil is stable and protective and contains very little linoleic acid.

Pork and poultry are almost always fed corn and soy, so their fat content is high in linoleic acid. If you are struggling to lose weight or get keto-adapted (despite doing all the right things) eliminate pork and chicken from your diet. Corn and soy are seeds that are high in linoleic acid. So when you eat animals fed corn and soy, they produce fat that is also high in linoleic acid. This is why you have to be sure to eat grass-fed animals!

If you have cancer or autoimmunity, eliminate pork and chicken from your diet and eat more saturated animal fats and meats that come from beef or lamb that is fed grass only. Look for "grass-fed, grass-finished" on the label.

Animal fats, especially those fats from grass-fed ruminant animals, are the very best for protecting the body from oxidative stress and for promoting fat burning. If you are struggling to lose weight, eliminate linoleic acid, and increase stearic acid found in grass-fed ruminant animal fat.

Linoleic Acid Linked To Obesity

Unlike saturated animal fats containing stearic acid, linoleic acid (found in seed oils) triggers hunger. This is why scientists use it to make laboratory animals obese. On the other hand, stearic acid (found in the saturated fat of ruminant animals) has the opposite effect, it triggers satiety, producing the feeling of satisfaction and fullness so you stop eating. According to multiple studies looking at the role that linoleic acid plays in obesity and fatty liver disease, it has been clearly demonstrated in mice models that linoleic acid activates the endocannabinoid system, stimulating the appetite and increasing food intake. This is basically the equivalent of smoking a joint and getting the munchies. It is the very same endocannabinoid system. It also activates fat storage pathways and downregulates fat metabolism.

Stearic Acid Linked To Weight Loss

The way to give laboratory animals fatty liver disease is to feed them linoleic acid found in seed oils. Seed oils are the main contributor of non-alcoholic fatty liver in humans, too, not just mice. Deep-fried foods must be avoided at all costs because only toxic vegetable oils are used for deep frying. If you have any seed or vegetable oils in your home, you will be well served to throw them out. Check everything in your kitchen including all bottled dressings, nut butters, and sauces for these processed seed oils. There has been an estimated 1000% increase in the consumption of linoleic acid over the last 100 years. Along with the sharp increase in processed sugar coupled with the increase in consumption of processed oils, is it any mystery we have an obesity epidemic and an epidemic of chronic inflammatory conditions?

The food industry has brilliantly created foods that taste wildly delicious while making you hungry for more! The simple answer to turning this around is to start eating more healthy saturated animal fats. They will turn off your appetite and turn on fat burning. If you eat enough fat, there won't be any room for sugar and excess carbohydrate in your diet, and the good news is, you won't even miss them! The root cause of metabolic dysfunction worldwide is arguably the overconsumption of processed sugar and seed oils. Seed oils were never part of the ancestral diet. Amongst the handful of remaining indigenous cultures on the planet (that do not use seed oils), they remain free of chronic disease. The takeaway message here is that if you can't make it in your kitchen, don't eat it.

FATS TO AVOID

There is one simple rule of thumb that will help you navigate through the maze of bad fats and good fats. That is, all liquid oils extracted from plants should be avoided unless they say "cold pressed" on the label. Period. Without exception, you have to read every label! Not just the front label -- but the back label too!

Never Eat These Toxic Oils

- Corn Oil
- Canola Oil
- Soybean Oil
- Cottonseed Oil
- Peanut Oil
- Hydrogenated Oils (Crisco)
- MCT Oil
- Margarine
- Avocado Oil (unless it says cold-pressed)

THESE ARE ALL FRACTIONATED AND REFINED VEGETABLE OILS

DO NOT EAT THESE OILS!

[...] a quarter of middle aged women today are taking powerful drugs to remedy symptoms that typically fall under a diagnosis of clinical depression: persistent distress, malaise, anxiety, inner agitation, fatigue, low libido, poor memory, irritability, insomnia, sense of hopelessness, and feeling emotionally flat, overwhelmed and trapped. [...] Some of my most remarkable case studies involve people changing their lives and health for the better through simple brain-making edits to the dietary choices. They cut carbs and add healthy fats, especially cholesterol -- a key player in brain and psychological health. I've watched this fundamental dietary shift singlehandedly extinguish depression and all kind of kissing cousins, from chronic anxiety to poor memory and even ADHD. ~ Dr. Perlmutter, MD, Brain Maker, The Power of Gut Microbes to Heal and Protect Your Brain -- For Life

MCT Oil

The popularized MCT oil is a derivative of coconut oil. When the lauric acid is extracted from coconut oil, the bi-product is called MCT oil, which stands for medium-chain triglyceride (MCT) also known as liquid coconut oil. But that name is very deceiving because it is not liquid coconut oil at all. Liquid coconut oil is what you get when you put a jar of coconut oil on your countertop in a warm climate and it turns from a solid to a liquid. MCT oil is not coconut oil at all. It is only a fraction of the natural fat contained in coconut oil. In other words, it is a fractionated oil. This should be the first clue that it is not a healthy oil if machinery and high heat is part of the process.

Coconut oil is one of the few foods containing high amounts of lauric acid, which is a sacred fat molecule that is almost exclusively found in coconut oil and human breast milk. It is crucial for proper brain growth and development, which is why Nature put it in breast milk. Lauric acid is the most prized and valuable of the fats contained in coconut oil, but it is removed from MCT oil. Coconut oil is a wonderful, healthy, saturated fat. You are far better off eating coconut oil than the processed oil, MCT, which is fractionated and highly processed, making it unfit for human consumption.

A fractionated oil is produced by splitting apart the molecules of the fat using high heat, leaving behind “fractions” of the original fat molecule. The remaining denatured fat cannot be properly utilized by the body or broken down in the gut, which is why MCT oil causes so many people severe gastric distress. Just like all other processed oils, MCT oil destroys the metabolism and the healthy bacteria living in the digestive tract. Never consume MCT oil.

Protein

Contrary to popular misconception, the body does not start to burn your lean muscle mass when glucose stores are diminished. Therefore, you don't need to be concerned about losing muscle mass on a well thought out low carbohydrate or ketogenic diet. The body is perfectly designed to burn fat as a fuel source when glucose is not available. In other words, your muscles are protected on a low carb diet and you have access to a secondary fuel source, which makes your body much more efficient when it comes to producing energy.

Protein is made up of amino acids, which are structured like links in a chain. There are nine essential amino acids that must come from your diet because the human body cannot produce them. These are: histidine, isoleucine, leucine, lysine, methionine, phenylalanine, threonine, tryptophan, and valine. All of these amino acids are found in animal protein, making it the most bio available source of protein for the human body. Some plants do contain protein, however the protein found in plants is considered "incomplete" because it lacks some of these essential amino acids.

If left to your own devices, the amount of protein you eat in a day could be based on personal cravings, convenience or maybe the unrelenting whispers in the back of your mind about the dangers of eating red meat, which we've all been programmed to believe by the media and our doctors. But this guidance will certainly lead you astray. So, how much protein should you eat? It really depends on who you ask. I will attempt to give you some basic parameters and with some reasonable information gathering, you will be able to make an educated decision about what is best for you.

Extensive research by many pioneers in the area of low carb nutrition, including Dr. Mercola, Dr. Phinney and Dr. Atkins, agree that excess protein can trigger the production of insulin, leading to elevated blood sugar levels. Dr. Stephen Phinney, Eric Westman and Jeff Volek wrote an entire book on the subject of protein, titled The New Atkins For A New You: The Ultimate Diet For Shedding Pounds and Feeling Great. This book was dedicated to clarifying the common myth that the ketogenic diet was a protein diet. But what does "high protein" mean? Higher than what?

Many doctors and researchers, such as Dr. Joseph Mercola and Dr. Jason Fung address the topic of protein at great length in their books. I highly respect both of these doctors and the science behind their work. I recommend reading Fat For Fuel by Dr. Mercola and The Obesity Code, by Dr. Jason Fung. Both seem to lean towards the lower end of protein requirements. On the other hand, Dr. Weston A. Price, a dentist and nutrition research pioneer who traveled the world in the 1920s and '30s studying isolated, nonindustrialized peoples, discovered that traditional cultures that ate a diet rich in animal meats, organ meats, and saturated animal fats not only had perfect teeth, but they were also free of disease.

How much protein your body needs to thrive is based on your unique needs and what phase of life you are in. Your protein needs should take into consideration your age, height, weight, body fat percentage, activity level, and iron levels. If you are a growing child, pregnant or menstruating woman, recovering from injury or surgery, experiencing a healing crisis, have low iron (anemia), are an athlete in training or bodybuilder, you will likely need more protein in your diet than someone who is young, sedentary or has high iron levels.

Getting a micronutrient test and an iron test can reveal a great deal of valuable information about your health and protein needs. For example, I discovered recently that I was deficient in carnitine, which is an essential amino acid found in animal meats. Also, through laboratory testing, I learned that my ferritin iron was very low. These are two good reasons for me to be eating more animal protein. I have since increased the amount of animal protein in my diet. But I would never have known this about myself if I had not done these basic lab tests.

Optimal Protein Intake

In essence, there is a great deal of controversy over how much protein humans should be eating. I'm not an expert by any means, but I have been following the research on this for decades. Some doctors in the low carb world argue that excess protein disrupts the process of detoxification (autophagy and apoptosis) by triggering cellular pathways such as MTOR (Mechanistic Target of Rapamycin) and Insulin Growth Factor 1 (IGF1), which are associated with the growth of tumor cells. IGF1 is a measurable data point in the human body and it can easily be measured so you can have a sense of where you are on the normal curve. It is recommended that you check your fasting levels of IGF1, regularly.

Some experts believe that excess dietary protein can "turn on" abnormal cell growth and gene mutations resulting in the promotion of cancer cell growth. This is a conundrum, especially for those eating a ketogenic diet as an adjunct to cancer treatment. But, others argue that chronic diseases, including cancer, are not triggered by eating animal protein. Rather, they are triggered by eating processed sugar and processed seed oils. If we take a look at science, laboratory mice are fed seed oil (linoleic acid in particular) to produce cancer so scientists can study cancer. They are fed linoleic acid to produce diabetes. They are fed linoleic acid to produce obesity. They are fed linoleic acid to produce respiratory distress syndrome (ARDS) and asthma. The list goes on.

In short, although eating red meat has been blamed for many diseases, according to scientific studies on animals and humans, animal protein is not the problem--processed sugar and seed oils are the problem. Increased protein intake in the absence of excess carbohydrate intake and in the absence of seed oil consumption improves metabolic health. In particular, a cycling rhythm of eating which includes periods of "feast and famine" is very beneficial. Dr. Mercola wrote an entire book based on this concept, titled *Ketofast,* which I highly recommend. In short, cycling in and out of ketosis is a powerful strategy for maintaining metabolic flexibility and overall resistance to disease. This includes periods of protein restriction and periods of increased protein consumption.

During fasting, which necessarily includes protein deprivation, the nutrient sensor mTOR is reduced, which stimulates the body to break down old, dysfunctional subcellular parts. Upon refeeding, the body builds new protein to replace the old in a complete renovation cycle. Instead of keeping old parts around, you are making new ones. Replacing old parts with new ones is an anti-aging process. ~ The Longevity Solution, Rediscovering Centuries-Old Secrets to a Healthy Long Life by Dr. James Dinicolantonio and Dr. Jason Fung

Calculating Your Protein Needs By Hand

In his book, *Fat For Fuel*, Dr. Joseph Mercola uses the following formula to calculate the optimal protein intake of a person weighing 146 pounds. To use this formula, first, you must calculate your body fat percentage and your lean body mass. To do this, search the internet for images of "body fat percentages" or use the images below to choose one that represents your body fat percentage.

Choose an image that best represents how you look right now. Here is a chart taken from Built Lean™.

Next, take your current body weight in pounds and divide that number by 2.2 to convert it into kilograms. Then, multiply that number by your body fat percentage (see images). This will determine your kilograms of body fat.

Then, subtract your kilograms of body fat from your total weight in kilograms to determine your lean body mass. Lastly, round that number to the nearest whole. The result will represent the grams of protein you would want to consume daily, according to Dr. Mercola. It is roughly one gram of protein for every 1 kg of lean body mass.

Protein Calculation Example

146 pounds ÷ 2.2 = equals 66.22 kilograms
66.22 kilograms X .33 (33% body fat) = 21.85 kilograms body fat
66.22 - 21.85 = 44.4 kg (lean body mass)
44.4 ≈ 44 grams of protein daily

Dr. Mercola recommends much lower amounts of protein than other low carb doctors. There are many different schools of thought on exactly how much protein is optimal for the human body. Let's just say that amongst experts this number is somewhere between 1.0 gram and 2.5 grams of protein (each day) per one kilogram of lean body mass.

The "rigorous" setting in Cronometer under the High Fat /Ketogenic Diet setting (within the Dynamic Macronutrient Targets) will automatically set your protein at the lower end, which is one gram of protein per one kilogram of lean body mass. If you choose the "relaxed" setting in your Cronometer profile settings, your allowable protein intake is more than doubled at 2.5 grams of protein (each day) per one kilogram of lean body mass.

Dr. Paul Saladino, the author of The Carnivore Code, who is perhaps the world's leading expert on the ancestral carnivore diet, stated on his podcast, Fundamental Health With Paul Saladino MD, with research scientist, James Clement, that he eats 1 gram of protein per 1 pound of body weight. So if you are 150 pounds, you would eat 150 grams of protein per day. This amount far exceeds Dr. Merola's recommendation. Dr. Phinney, Dr. Mercola, Dr. Fung, and Dr. Saladino all distinguish that excess protein is not necessarily beneficial, although they each have very different views on what is optimal.

Dr. ZSophia Clemmens, at the International Center For Medical Nutrition Intervention (ICMNI), has successfully treated thousands of people with Chrone's Disease, Diabetes, aggressive brain cancers, Multiple Sclerosis (MS), leaky gut, and much more using dietary intervention alone, without the use of any medications or supplements whatsoever.

These results would be considered impossible by current medical standards. At ICMNI, they implement an animal-based diet consisting of meat and animal fat. Specifically, they use what's called a Paleo Ketogenic Diet (PKD) which consists of 50 to 60 grams of protein per day for adults (regardless of height and weight).

ICMNI has discovered that the ideal ratio for the PKD is two parts fat to one part protein. They are getting phenomenal results using the PKD to treat patients with a wide variety of "untreatable" chronic diseases. This way of eating has been proven to resolve intestinal permeability, metabolic syndrome, and autoimmunity. The PKD uses only animal fats, no plant fats or plant products whatsoever, as well as no dairy of any kind.

Dr. Mercola states in his book, Ketofast, "You want to consume only enough protein as your body needs to maintain your lean muscle mass and no more." He goes on to say that a close estimate is "one-half gram of protein for every pound of lean body mass" for a middle-aged person. Dr. Mercola's recommendations fall into close alignment with the PKD diet at ICMNI.

According to Cronometer, Saladino's idea of optimal protein intake far exceeds the maximum allowed on the most "relaxed" ketogenic diet setting. For example, the "rigorous" ketogenic diet setting in Cronometer, sets my protein intake at 37 grams of protein per day, which is 88 grams shy of what Dr. Saladino suggests.

There is quite a debate amongst experts about the optimal amount of dietary protein intake. Let's just say that when it comes to the number of grams of protein you should be eating, it's somewhere between half a gram of protein per pound of body weight (per day) on the low end, and one gram of protein per pound of body weight (per day) on the higher end.

Personally, I rest somewhere in the middle. I think it has much to do with your age, height, weight, phase of life, activity level, and what else you eat with your protein. For example, people with severe illness or injury, bodybuilders, endurance athletes, pregnant women, breastfeeding women, menstruating women, or someone with marked malnutrition likely need to eat more protein.

Ultimately, you get to choose what works best for your body. These are only guidelines for you to test out and see how your body responds. These are dynamic measurements that fluctuate. Finding your ideal macronutrient profile will take time, and adjustments will need to be made along the way. With severe insulin sensitivity, excess protein may inhibit ketone production.

Animal Protein

For the best sources of high-quality animal protein and animal fats, locate a farmer's market near you. Every town and city usually has one. I'm always shocked to find out that people who have lived in my town for years, have no idea there's a farmers market right in the center of town every week. Getting to know your local farmers is an integral part of your health plan. In addition, locate a Weston A. Price Chapter in your area and attend a meeting. This organization will connect you to resources for local, grass-fed meats, organs, bones, raw dairy, and more. The Weston A. Price Foundation is dedicated to the restoration of human health and the health of the planet, connecting conscious consumers with locally produced food. In 2003, I started the first Weston A. Price chapter in my county. If you do not have access to a local farmers market, and there is no Weston A. Price chapter in your area, there are some good online resources for sustainably harvested, free-range, grass-fed animal products online that will ship directly to most states in the U.S. Butcher Box has a good reputation and is well worth checking out.

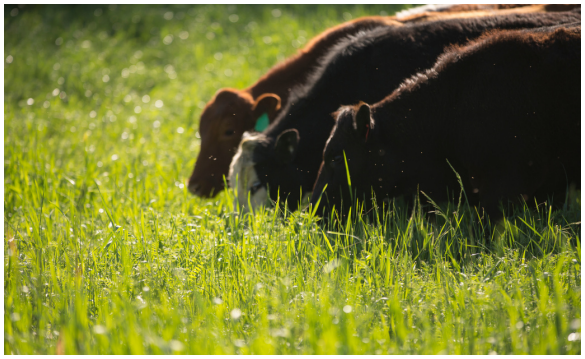
Supporting sustainable agriculture, not large big-box chain stores, is the only way to restore the health of the planet and the people living on it. It's time to put our health and the health of the planet first and that means supporting small-scale local agriculture. Large scale monoculture farming destroys the microbial diversity of the soil, requiring tons and tons of chemical fertilizers to be used each year. Tilling the soil exposes the worms and soil bacteria to sunlight, which kills them off. The irrigation runoff from industrialized farming operations eventually ends up in the oceans, creating ocean dead zones caused by the excess nitrogen and phosphorus in the soil fertilizers. These hypoxic areas in our oceans are killing off marine life, rapidly. Sustainable agriculture is the only way to restore the earth's ecosystem.

The majority of the food being produced from large-scale agriculture is being used to feed animals raised in confinement, to make processed seed oils, and to produce processed, fast food for humans. This includes the millions of fast-food restaurants using toxic seed oils for deep frying. The world's most destructive crops to the planet are grains and seeds because farming methods include tilling and the use of chemical fertilizers.

The mass production of seeds (used to make seed oils) and the mass production of meat from concentrated animal feeding operations are destroying the earth's ecosystem. Grass-fed beef is regenerative to the earth's surface because roaming cows produce manure that adds nutrients back into the soil. Biodynamic farming and permaculture farming methods focus on building the microbiome of the earth. They do not use machine tilling or chemical fertilizers, whatsoever.

The very best sources of dietary protein for healing the human body come from local farm-raised, grass-fed, animals that have not been fed grains, antibiotics, hormones or hay grown with pesticides or chemical fertilizers. Animals should be raised on green pastures where they live in a natural habitat. If they are not, don't eat them. Restoring the health of the planet largely depends on changing our farming practices. In 2009, my husband and I founded The Quantum Growth Institute, a non-profit organization dedicated to teaching the principles of sustainable, regenerative farming practices to high school students. We work directly with local farms in our area and have collaborated with the FFA (Future Farmers of America) on many projects over the years.

Eat Grass-fed Animals!



Plant Protein

Plants don't contain complete proteins like the protein found in animals. There is no plant fit for human consumption that contains all of the essential amino acids in the right proportions to be considered a complete protein. However, some plants can be combined together to create complete proteins. Unfortunately, when plants are properly combined to form complete proteins, like beans and rice for example, the resulting combination is too high in carbohydrates to support a low carb diet.

Beans, rice, grains, nuts, seeds, lentils, peas, pulses, and legumes are amongst the highest protein-containing plants. These plants are also amongst the most inflammatory foods for the digestive tract due to heavy concentrations of phytates, oxalates, saponins, mycotoxins (microfungi), and lectins. These are chemical compounds that plants produce to protect them from predators. These substances are toxic to humans, animals, and insects, too. When these poisons enter the body, they cause irritation of the gut lining, resulting in intestinal permeability or leaky gut.

These toxic substances are known as "anti-nutrients" because they bind to essential nutrients making them impossible to absorb, which leads to nutritional deficiencies. These highly toxic plant compounds should be avoided, entirely. Some people are much more sensitive than others and can remain asymptomatic for years or even a lifetime. But if you have symptoms, any symptoms at all, remove these reactive, inflammatory toxins found in plants, using a total elimination diet such as the one found in this book. Simply put, not all plants are safe to eat. Ironically, many toxic plants are touted as healthy foods and should not be consumed. Dr. Steven Gundry has written several books on the harmful effects of lectins, including, The Plant Paradox, where he discusses in detail the damage that some plants can cause in the human body.

Removing anti-nutrients from your diet is easy. Replace plants with animal foods, which do not contain these substances for a period of time and see how you feel. According to gut-healing expert Dr. Natasha Campbell-McBride, meat, fish, poultry and eggs are essential foods for restoring the digestive tract. Her world-renowned GAPS™ Diet Protocol begins with eliminating plants. A total elimination diet is necessary for most people to restore healthy gut function. Simply put, animal products do not contain anti-nutrients and are the easiest foods for the human body to digest.

Animal protein and animal fat are soothing healing to the human digestive tract because they match our own human cellular structures, where plants do not. Remember, we are animals, too. For example, there is no part of a plant that will ever be broken down into collagen, which is a major component of human connective tissues. Collagen is only found in animals and when we eat the collagen in the animal, our body can immediately utilize the collagen for healing and repairing. According to Dr. Natasha-Campbell-McBride, bone broth, which is very high in collagen, is an essential food for restoring the gut lining and reversing gut permeability.

The GAPS™ Diet Protocol has worked to heal hundreds of thousands of people around the world suffering from autoimmunity and mental illness. I highly respect Dr. Natasha-Campbell-McBride's work and have been using her protocol in my practice for years. In 2016, I became a GAPS™ Certified Practitioner and I have personally seen thousands of people benefit from this diet.

Digesting plant food is hard work and requires a high-energy source. Upon switching over to a diet high in animal products, the gut no longer needs so much oxygen and the excess that is freed can be diverted to the brain.[...] In general, carnivores are smarter than herbivores; foxes are slyer than donkeys. ~Dr. Leonard Shlain, Sex Time and Power: How Women's Sexuality Shaped Human Evolution

Iron

Iron is an essential element in the body. The body can become anemic if it does not get adequate iron, resulting in iron deficiency anemia (and many other illnesses). This happens when the body doesn't have enough iron to produce adequate amounts of hemoglobin. Hemoglobin gives blood its red color and enables red blood cells to carry oxygen, which is a very important function. Many people with a leaky gut are anemic because inflammation in the digestive tract can cause bleeding of the gut lining. The richest source of heme [protein] iron comes from animal protein, particularly liver.

An absolute resuscitation for an anemic person is eating liver. Liver is a true powerhouse of nutrition. Whichever nutrient you take, you will find it in abundance in liver [...] ~ Dr. Natasha Campbell-McBride, author of GAPS, Gut and Psychology Syndrome: Natural Treatment for Autism, Dyspraxia, A.D.D., Dyslexia, A.D.H.D., Depression, Schizophrenia

While plants contain chlorophyll, which gives them green color, animal protein contains iron which gives animal tissue its reddish color. At the core of every chlorophyll molecule is a single atom of magnesium, a greyish metal. A molecule of chlorophyll is almost identical to a molecule of hemoglobin found in the red blood cells of vertebrates. But, instead of having magnesium at its core, hemoglobin contains iron ore, a different metal altogether. This makes hemoglobin and chlorophyll very similar in structure, but for the metal at their center.

Iron is found in soil and therefore some iron makes its way into plants. But fundamentally, plant iron is different from the iron in animals. It takes a tremendous amount of work for the body to chelate the iron from plants because we lack the enzymes and bacteria in our gut to effectively do so. For example, ruminant animals that eat grass have four stomachs capable of fermentation to break down plant matter so the iron is made bioavailable for absorption. Humans do not have this type of digestion. Also, because the earth's topsoil is depleted of naturally occurring iron ore, the amount available to plants is very minimal compared to what it used to be. I remember watching Popeye as a kid, the superhero cartoon character who would grow big muscles after eating spinach. This was one of the first media brainwashing campaigns training kids to eat more greens. If you are eating loads of spinach and kale to get stronger, you might end up destroying your health in the process. These foods are very high in anti-nutrients, which end up pulling minerals out of the body, instead of putting them in. The most bioavailable form of iron comes from animal meats and organs.

It is important to get your iron tested before determining your optimal daily protein intake. Excessively low levels and excessively high levels of iron can be very dangerous to your health. If you don't get your iron tested, you will never know the truth about how much protein is right for you. When it comes to protein, a few ounces makes a big difference. Unfortunately, most doctors are very uninformed about the dangers of iron overload, so they don't routinely test for serum ferritin. However, excess iron creates excessive free-radicals which damages cells. Seed oils also damage the cell walls, making the cells susceptible to free radical damage. Once the cell walls are damaged, everything inside the cell is at risk. Damaged cell walls lead to cancer, heart disease, chronic fatigue, diabetes, neurodegenerative diseases. Basically, all chronic disease and infectious disease is caused by damaged mitochondria.

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BACKGROUND ON KETO

Although this hidden little metabolic secret has escaped modern science until just recently, the ketogenic (keto) diet is likely the longest standing diet in human history as it dates back to traditional hunter-gatherer cultures, spanning the course of thousands (if not millions) of years. A primitive human cycled through periods of feasting (after an animal was killed) followed by periods without any food at all (famine). In periods when food was not available, the metabolism would automatically switch over to burning stored body fat as its fuel source. The byproduct of fat metabolism is called a ketone. Hence, the name, ketogenic diet. Today, the term "ketogenic diet" refers to a diet that is high in fat and low in carbohydrates.

The physiology of early humans was agile and naturally shifted between glucose and fat for fuel because it had to withstand periods of food scarcity. There were times of feasting and times of fasting. When food was ripe and plentiful in the springtime, excess energy was stored as body fat. When food was scarce in the winter, the extra body fat stored during springtime was burned for energy. This was the norm up until very recently in our history. About 150 years ago, everything about the human diet changed. Alongside the industrial revolution, for the first time in history, we had shelf-stable, processed foods that contained grains, sugar, and seed oils. This marked the beginning of the chronic disease epidemic in North America.

Human metabolism is well equipped to use glucose for fuel and then switch over to using fat for fuel when glucose (carbohydrate) is no longer available. Thus, the feast and famine cycle of human evolution and survival. Although humans are hardwired to switch back and forth between burning glucose and fat (like a hybrid car switching between gasoline and battery power) most people in our culture never engage this part of their genetic mastery because they never experience periods of famine (or not eating).

Without this adaptation, which is hard-wired into our DNA, humans would not be here right now. When it comes to evolution, an extraordinary amount of time must pass for something of this magnitude to express itself in our genetic blueprints. The ketogenic diet has likely been around for a very, very long time.

MECHANICS OF KETO

The human body is designed sort of like a hybrid car. It has the perfect "built-in" mechanism to switch from burning carbs to burning fat. Just like a hybrid car that switches between gasoline and battery power. A high-fat diet is like running on battery power. It is, by far, the most efficient fuel for the body and is arguably one of the healthiest ways to eat whether you have a weight problem or not.

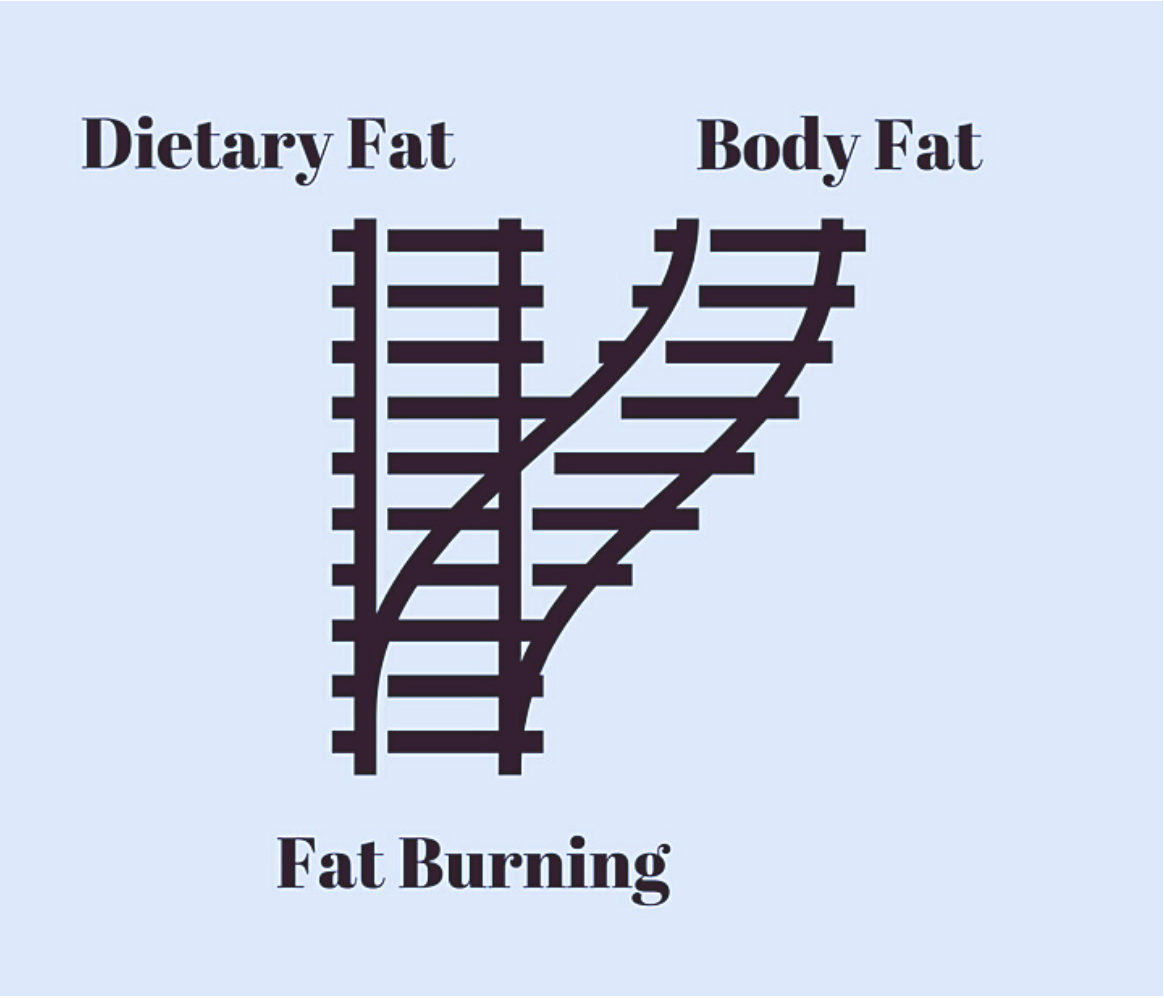
When you replace carbohydrates in your diet with healthy fats, you are switching over to a cleaner fuel source. If your body were a car, you would see black smoke billowing out of your exhaust pipe when you fill up on carbs. On the other hand, when fat is your primary fuel source, your body becomes “fat adapted” and it runs more smoothly and produces very little emissions.

When becoming "fat adapted" or "keto-adapted”, your body begins to produce ketones, which are the by-product of fat metabolism. Ketones are produced when fat is metabolized for energy. The metabolized fat can come from your diet, your body fat stores, or both. When you metabolize fat, you are in a state of “ketosis”, which means, you are producing ketones. Once fat-adapted, the body will utilize both dietary fat and body fat for fuel. It will switch back and forth between the two.

Ketone production occurs only after the excess glucose stores in your body have been depleted. How long it takes to drain your glucose stores is different for everyone. It can take up to two weeks after restricting carbohydrates, but can also take as little as 72 hours to see ketones on your blood monitor, especially you incorporate meal timing into your lifestyle. It all depends on how large your glucose "storehouse" is, how restrictive you are with your carbohydrate intake and how quickly your body adapts to this dietary change.

Exercising will more quickly deplete glucose stores. But, I do not recommend doing any strenuous (high impact) exercise whatsoever until you are fully keto-adapted and have been steadily producing ketones for at least 4 weeks. To become fully keto-adapted takes 6 weeks of consistently being in ketosis every day. Do not begin exercising unless you are checking your blood sugar and ketones regularly.

Two Sources Of Fat



Mounting research suggests nutritional ketosis is the answer to a long list of health problems, starting with obesity. In fact, emerging scientific evidence suggests a high-fat, low-net carb and low- to moderate-protein diet (in other words, a diet that keeps you in nutritional ketosis) is ideal for most people. In fact, endurance athletes are turning away from conventional high-carb strategies and adopting this way of eating because it boosts physical stamina and endurance. Beyond insulin resistance and type 2 diabetes, there are a number of applications for nutritional ketosis, including as a treatment for seizures, especially in kids who are unresponsive to drugs, and in neurological conditions such as Alzheimer's and Parkinson's. Cancer is another area where ketogenic diets show great promise. ~ Dr. Mercola, Blog

On the far outer rim of low carbohydrate diets lies the ketogenic diet. This is the most extreme form of restricted carbohydrate diets that there is. If a carbohydrate-centric diet is at one end of the spectrum -- the ketogenic diet is at the opposite end of the spectrum.

Sometimes we need to go to the opposite extreme to regain balance, eventually making our way back to the center over time. The ketogenic diet is a powerful way to restore healthy metabolic function. Although it is certainly not for everyone, it goes a long way to help regain blood sugar balance quickly and effectively when needed.

The ketogenic diet combined with intermittent fasting practices quickly brings the body into a state of healing because these things trigger autophagy and mitophagy, which is the internal housekeeping system within the body. Ketosis activates the removal of toxins and damaged DNA from the body. Autophagy literally means "self-eating" and it's when old damaged cells are recycled into new healthy cells. Mitophagy is when old worn-out mitochondria get recycled into new healthy mitochondria.

Feast And Famine Cycles

Once you have reached your health and weight goals, cycling in and out of ketosis is perhaps the best way to maintain overall metabolic flexibility for healthy aging and the prevention of disease. This is how our ancient ancestors survived and it is what our metabolism thrives on. Intermittent fasting (meal timing) coupled with the ketogenic diet is a wonderful strategy for creating amazing health long-term. Once you are keto-adapted, which takes about 6 weeks of consistent ketone production, you are ready to cycle in and out of ketosis. This is known as "keto cycling" or "keto fasting". Dr. Joseph Mercola wrote an entire book about the incredible benefits of this titled *Ketofast*. I highly recommend it!

Follow periods of ketosis with periods of not being in a state of nutritional ketosis. Enjoy eating plenty of healthy whole food carbs regularly so that you shut off ketone production. Some people will choose to be in a state of ketosis for a few days a week. Others find it beneficial to shift into a state of ketosis a few times a month or perhaps only a few times a year. Historically this was achieved during fasting over religious holidays.

MAINTAINING YOUR IDEAL WEIGHT

After you have reached your ideal body weight, it's time to change things up!

You cannot sustain your ideal body weight on a ketogenic diet if you do not increase your dietary fat intake! You will get too thin!

Once you have reached your ideal body weight, you need to basically double your fat intake to maintain your body weight. When you reach your ideal body weight and you want to maintain your weight, you must update your Cronometer profile to reflect your desired outcome which is to "maintain" your body weight. In order to maintain your ideal body weight, you will need to consume enough dietary fat to meet your energy needs (calories) daily because you don't have energy stores to draw from anymore.

If you do not meet your daily energy requirements, your metabolism will adapt by slowing down to adjust to the calorie restriction. This is not a good thing and it is not sustainable! You cannot sustain your ideal body weight without increasing your intake of dietary fat, protein, and carbohydrates. **A ketogenic diet is not a calorie-restricted diet!**

Once you reach your ideal body weight, you have to eat more fat and increase your carbohydrate intake. You will need to consume about double the fat grams as you did during the weight loss phase, to maintain your body weight.

Relying on your appetite as a guide to getting enough calories daily can be misleading because ketones suppress your appetite. You need to be sure you are getting enough calories every day which ultimately comes down to managing the percentages of your macros properly.

If you need help understanding macronutrient tracking, I walk you through this whole process in *The 5 Day Keto Challenge*. Click here to join the challenge.

TROUBLE SHOOTING

How Can I Possibly Get Enough Fat Into My Diet Everyday?

Getting enough fat into your daily diet is perhaps the most difficult part of maintaining a state of nutritional ketosis. I find it almost impossible to achieve this without adding a high fat drink to my daily diet everyday to maintain my body weight. Believe it or not, it's easy to get too thin on a keto diet!

I look forward to my high fat drink every day because it's satisfying, delicious, saves tons of time and it makes my life simpler in the kitchen all together. this daily drink makes it possible to overcome the inevitable challenge of consuming enough healthy fats while maintaining a low carb lifestyle.

High fat blended drinks have been a daily staple in my (and my kids) life for 25 years. It takes minutes to make and will take care of much of your fat intake for the entire day. Using an insulated travel mug with a tight fitting lid, makes it simple and easy. It will take you less time to make a high fat drink before you leave the house -- than it would for you to go to a drive thru and pick something up that will likely damage your health.

A high fat drink is incredibly convenient on the go, at home, office, school, traveling or commuting. Perhaps the most spectacular benefit of all, is that you will save hours in the kitchen and money on your food bill. It is not unlikely that you will cut your food bill in half eating this way.

NEED MORE HELP?

CLICK THE IMAGE TO JOIN THE 5-DAY KETO CHALLENGE! GET INTO KETOSIS IN JUST 5 DAYS. I WILL SEE TO IT!

The best fats for making High-Fat Drinks are solid (saturated) fats like coconut oil, clarified butter (ghee), grass-fed organic butter, beef tallow, or heavy whipping cream.

Add one or more of these healthy natural fats to your coffee or tea in the morning. For best results use a blender. But you can certainly just stir these fats into your hot drink and that will work just fine. Try it different ways and see how you like it.

How Do I Afford To Eat This Way?

The argument that you can't afford to eat a healthy diet is simply not true. I've done the math raising four kids eating this way. The good news is that animal fats are very cheap and will help you stay extremely satisfied throughout the day! It is ironic that the less you eat -- the less you want to eat. But this is what happens with intermittent fasting and eating low carb. Your appetite will diminish considerably!

Keto will also end vicious cravings induced by carbohydrates and eradicate occasional binging on carbs. This will save you tons of money because you will no longer feel compelled to purchase packaged and processed carbohydrates. These will become things of the past. All that packaged food is necessary on a healthy keto diet.

How Will I Know If I'm In Ketosis?

Here's What You Need To Do...

You will never actually know if you are in ketosis (producing ketones) unless you check your blood ketone levels regularly with a blood ketone monitor. Do not waste your time on urine ketone strips. They don't work and are not accurate! You will want to check your blood ketones often so you can join the conversation with your biochemistry and begin to understand the messages your body is giving you about the food you eat.

Purchase Your Monitor On Amazon

This is very important information that your body will communicate to you in the form of ketone production and blood sugar levels. Without this data, you are not seeing the entire picture of what's really going on with your biochemistry and you truly need this information if you want to be successful with a ketogenic diet.

You will never really know if you are in ketosis and you will always be guessing if you are doing this diet correctly if you don't measure your blood! You can avoid all of this confusion by investing in a ketone and blood sugar meter. I've given you a link to the one that I like right here on the page. It is a blood sugar AND ketone monitor in one.

Measuring your blood sugar and blood ketone levels is crucial and I highly recommend it. You will never truly understand how your body responds to the foods you eat if you do not test your blood ketones. I do not recommend urine test strips because they are very inaccurate and will not give you the information that you need.

The only way to know for sure if you are burning fat for fuel is to check your blood ketones!

Do You Have Questions?

Next Steps...

Click the links below to get support.

Book A Free 15 Minute Meet and Greet

Let's talk about what's blocking your success

Join The 5 Day Keto Challenge

Let me walk you through this...
Setting up your profile, monitoring your blood, and proper macro tracking.

Join Our Free Facebook Community

Get community support!