
The Ketogenic Diet (Part 2 of 2)

Troubleshooting

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Since writing about the ketogenic diet, I received a slew of inquiries on the “how-to’s,” and the process of keto-adaptation. I have also received emails from some who are having a hard time breaking into ketosis. There are numerous factors involved in the adaptation process and properly following the diet for success; however, I believe more research is needed to learn why some people become efficient fat burning machines and others struggle to keto-adapt and lose fat.

I have learned a lot working with so many weight loss resistant individuals, and will attempt to bring more clarity to some of these difficult questions. Since each of our bodies is different, the diet needs to be fine-tuned to gain the greatest benefits, but there are conditions like perimenopause, hypothyroidism, and neurotoxicity that I have found will keep someone from adapting to an efficient fat burner. The complex topic remains an ongoing subject of interest for me and many of my clients, and following are some common questions I’ve been asked, as well as strategies I developed to help those who struggle to break through into fat burning machines.

Is being in ketosis dangerous? Are there long-term effects?

Some people confuse being in nutritional ketosis (NK) with diabetic ketoacidosis (DKA), which is very different. DKA is a serious condition affecting people with diabetes (mostly type 1), and occurs due to a massive shortage of insulin in the body that forces the body to burn fatty acids for energy and gives off a massive amount of the byproduct from the fat burning (ketones > than 10). The lack of insulin also leads to an increased release of glucose by the liver and dangerously high blood sugar levels, and can result in death. Conversely, NK is safe, produces normal levels of blood ketones from fat burning (.5 to 5), and can provide outstanding health benefits such as increased fat loss, reduced inflammation, hormone and blood sugar regulation, and improved memory and cognition. The diet has had a very positive impact on my mental and physical health, so I like to stay in the state of ketosis most of the time. However, the diet is NOT for everyone, and if you have a health condition you should be under the care of a trained practitioner when undertaking any new diet.

Regarding long-term NK, a study on obese patients showed the positive effects of the ketogenic diet after 24 weeks, including weight loss, increased HDL cholesterol and decreased LDL particles, and decreased triglycerides and blood glucose. In another study from the 1930s, two men ate an all-meat diet for one year (under close observation), consuming beef, lamb, veal, pork and chicken, including large amounts of animal fat as a vital component. At the end of the study, both men were observed to be healthy, with no blood pressure increase, and even lost weight despite the high caloric intake. Both men had been in ketosis for nearly a year uninterrupted. An extreme example, but indicated how the body can adapt when in a ketotic state. History has also shown certain ethnic groups, like the Masai people of Africa and the Inuit Eskimos, have thrived in ketosis for their entire life on animal protein and fat centered diets.

How do I know if I’m consuming too much protein?

The majority of Americans eat entirely too much protein (and carbs) to maintain their best health. Most people only need to eat about ½ a gram of protein per pound of lean body mass, contrary to popular thought, which often suggests consuming 1 – 1.5 grams of protein per pound of lean muscle daily. People have been told they need lots of protein to build muscle; however, when you reduce protein and carb intake, while increasing healthy fats, you can lose weight and retain muscle. Eating lots of good fat is crucial when you’ve reduced protein and carbs in order to have energy and feel good. Competitive athletes and pregnant women need additional protein, but I’ve found the range of 40-75 grams of protein per day to work

for many people.

In order to estimate your daily protein needs, first calculate your body fat percentage to measure your lean body mass. To estimate your body fat, you can use an online calculator such as this one. Keep in mind most online calculators are not precise, but by using the same calculator over a period of time you can document trends to see if you're moving in the right direction. Once you've calculated your body fat, subtract your body fat percentage from 100 to find your lean body mass. For example, if you have 19% body fat, you have 81% lean muscle mass. To determine your protein needs (at ½ gram of protein per pound of lean body mass), divide your lean body mass by two and find that your ideal protein range would be around 40 grams of protein per day. That may not sound like much protein, but excessive protein, as discussed in the previous article, causes gluconeogenesis, a process in which the body converts excess protein into glucose because it can only use so much. Consuming too much protein can kick you out of ketosis (or keep you from getting into ketosis), so finding the right amount for your body composition is key. There are keto-calculators available online to estimate overall dietary recommendations for fat, protein and carbs. As far as protein sources, I like grass-fed beef, pastured poultry and eggs, wild-caught cold water fish (salmon, sardines, mackerel), raw, cultured dairy, wild game (pheasant, duck, venison), lamb, nuts and seeds, and high-quality whey protein.

How much extra protein or carbs do I need to eat on “load days?”

As explained in my 5-1-1 rule (read about it in the keto part 1 article), I suggest incorporating a carb or protein load day into your weekly regime to stay keto-adapted. I frequently choose to do a carb load day on Saturday, as I've found this day to work best for my body and schedule. When carb loading, I typically eat up to 100 to 125 carbs in the day, which temporarily kicks me out of ketosis. However, by the next day or two of intermittent fasting and eating the keto diet, I'm comfortably back into ketosis. I think it's good, even preferable, to shift your body out of ketosis from time to time. I enjoy my carb load day by dining out, perhaps ordering my favorite Italian dish, risotto.

On a protein load day, you can increase your intake by an extra 20-30 grams, but do not go overboard. I would max out at 120 grams, but always consider gender, age, health condition, and activity level when configuring the appropriate amount.

I've been following the Ketogenic diet for a few months, and still haven't lost weight. What could be going on?

There are a number of factors that could be stalling weight-loss including conditions such as perimenopause, hypothyroidism, and neurotoxicity, but often times it's as simple as the foods you're choosing, still too many carbs for your genetics or your body's instinctive ability to hold on to fat for survival.

Perhaps you're not eating enough fat and you're eating too much protein (gluconeogenesis), or not accounting for all carbs (nuts, seeds, dairy, veggies, etc), exercising too much or not enough, not drinking enough water, or simply consuming way too many calories. For starters take a good hard look at your overall diet and activity level and be honest with yourself. Remember there are conditions that I mentioned that will cause someone to take more time to adapt. My wife, who is in perimenopause, is a great example. It took her 4 months to keto-adapt and I've observed others take even longer. Often times it takes more time doing cellular detox before adaptation and fat loss will occur. Most thyroid conditions need more time and extra help to adapt, and will do better working with a trained practitioner. Following my 5-1-1 rule, 2-2-2 rule, and incorporating burst training (aka High Intensity Interval Training) into your routine will no doubt help.

I've also found that including a high quality MCT oil in your diet is excellent for promoting fat burning and keto-adaptation. You can swirl this color-less and taste-less oil into your coffee, low-carb smoothie, mix it in a dressing or sauce, or simply

drizzle on food. To aid weight-loss, you can also try eliminating or reducing nuts, seeds, dairy products, low-carb sweets, and cut out as many processed and packaged foods as possible. Be patient and stay committed for full adaptation to happen.

Can you explain ``fast fasting?``

The concept of a fat fast originated with Dr. Robert Atkins (creator of the famous Atkins diet), who suggested using it as a tool to break through a weight-loss plateau, or to make-up for a "cheat" day of overindulgence. A fat fast involves eating about 80-90% of your daily calories from fat, and keeping your calorie total for the day under 1,200. Fat fasting forces the body to burn stored fat via lipolysis due to the increased fat intake. Including loads of healthy fats is essential, such as coconut oil, MCT oil, and grass-fed butter and heavy cream. Fat fasting should not be done for more than a few days, due to the risk of muscle depletion and missing out on key nutrients as a result of decreased protein intake. The ONLY time to consider a fat fast is if you're already keto-adapted and stuck in a weight-loss plateau for more than 3 weeks. It's an extreme measure and potentially dangerous for someone who is already losing weight. I am NOT advocating fat fasting, but simply sharing the tactic as a consideration if you're at a true standstill with weight-loss.

If all else fails, this could be your answer!

The ultimate trick to break through into keto-adaptation is something I have learned while working with so many clients that are weight loss resistant. After many have tried to keto-adapt for several months with no success, I would tell them to go back to the regular True Cellular Detox™ Diet and in 2-3 months try to keto-adapt again. Lo and behold they would go back at it in a few months and they would break through into ketosis. I believe this is associated with the feast and famine cycles emulating how our bodies were designed to survive and thrive. If you have given your best effort, and it has been months of trying different strategies, this tactic could be your breakthrough. It has worked for many of my most challenging weight-loss resistant clients.

My personal trick that works for that impossible-to-lose fat (once you are adapted)!

Once you have adapted and are an efficient fat burner, the body does have adaptation mechanisms to decrease its fat burning efficiency. The body wants to survive at all costs, and is therefore always preparing for the day food might run out. The body wants to hold on to some fat just in case. I spoke in part one about this loose flabby fat that doesn't want to go away and often appears around the waist or butt. This is due to the body pushing water into fat cells to slow down the fat burning. I also wrote about insulin receptors being blunted by the body in an attempt to slow down fat break down. Both can make you frustrated in losing that last bit of the most annoying fat, despite following the diet with perfection. The 5-1-1 rule helps, but there is another trick that keeps me as lean as when I was in my 20's.

Intermittent fasting on a daily basis is something I have used for the last year to age more slowly. It works! According to studies, men experience a 2000% increase in growth hormone and women see a 1300% increase. I have done many health adventures in my day, as you can imagine, but I would have to say this is by far the most powerful thing I have ever done. Perhaps it's my age!

I have daily intermittent fasted (which i will explain in a moment), and been in and out of ketosis and experienced the benefits. The fasting seems to magnify the benefits of ketosis, especially when it come to that hard to lose fat.

A brief how to:

Simply don't eat breakfast, and wait until noon or 2 pm to eat a fat/protein based meal. The idea is to carry your nightly fast

beyond the typical night time fast of 12 hours to 16-18 hours. This will only work for fat loss for those who are keto-adapted or who are already efficient fat burners. Most people (because of their hormonal inability to burn fat when they are not eating ie. at night while sleeping) will burn muscle into sugar for their energy needs. Once adapted, you will dig into those deep stores on a daily basis. CAUTION: if you do not eat a big dinner (until full) your body will eventually think it's starving and shut down all fat burning. Remember, it will do anything to survive and hold onto its next meal in the form of fat. It will not matter what you eat at that point. By the way, America is one of the only countries in the world that believes breakfast is "the most important meal of the day" and that it should be the biggest meal of the day. As far back as history shows, most cultures don't eat breakfast, or it is as the name suggests, a small fast meal.

I've been experiencing loose bowels since following the diet. What should I do?

You may not be eating enough fat. If you've been eating a low fat and high carb diet for a long time and now are eating low carb and high fat, loose stools may occur temporarily. Up your healthy fat intake and loose bowels should dissipate as your body adjusts to the new way of eating.

If you are not breaking down the fat, another possible reason, taking digestive enzymes that contain bile salts (ox bile) and lipase will help. The supplement Digestzyme from Designs for Health contains both and you can take 1-2 with each fatty meal.

How does being keto-adapted affect athletic performance?

Speaking from personal experience, being keto-adapted has massively improved my physical performance, and many athletes and cultures around the world employ the ketogenic diet for performance enhancement. Being in ketosis forces your body to burn fat for energy, and provides a nearly endless energy source when exercising, so your endurance and stamina increase significantly. When my body stopped relying on glucose for fuel, my energy levels skyrocketed. I also found I could push my body harder during workouts than in the past, and it took less time to recover from a challenging session. I am not the only one who has experienced these results. More and more studies, and personal experience, testify to the same findings.

Although I'm a lean guy, I have approximately 90,000 stored calories available for energy to burn. Others who are less lean, consequently, boast even more potential energy. My favorite forms of physical activity are cycling and burst training. Since becoming keto-adapted, I can wake up and drink coffee with MCT oil and heavy cream (without consuming solid food), and ride my bike through the mountains for hours feeling energized and strong. Athletes who are not keto-adapted, in contrast, typically must eat every few hours for energy or they run out of glycogen (stored glucose), which they depend upon for sustained performance.

Since becoming keto-adapted, including burst training in my regime, has been particularly effective for fat burning. This study noted that eating a low carb diet, in combination with burst training, promotes greater fat loss and preservation of lean body mass than a low-fat diet. Burst training also helps to increase blood ketones (determined using a blood meter) and pushes your body further into ketosis. Good ketone numbers read between 1.5 – 3.0 beta-hydroxybutyrate (BHB), but you're in ketosis if blood ketones range from 0.5 – 5.0. Post-workout, I often consume some form of protein to restore glycogen and rebuild muscle, and I usually make a shake with high-quality whey protein powder. My favorite kind is chocolate Whey Cool from Designs for Health, and only contains 5 grams of carbs per scoop. Replacing lost water and sodium after a workout is also key. To keep it simple, I sprinkle salt into my water bottle and sip throughout my workout.

For more information on ketosis and athletic performance, I recommend reading "The Art and Science of Low Carbohydrate Performance" by Drs. Jeff S. Volek and Stephen D. Phinney.

What is the “keto-flu”?

The “keto-flu” is the symptoms that occur when the body begins to go through carbohydrate withdrawal. Your hormones begin to shift and your electrolytes can become imbalanced. During the keto-adaptation process, symptoms can range from mild to severe and may include brain-fog, nausea, fatigue, diarrhea, and gastrointestinal issues. If you’ve already been eating a fairly low carb diet, including enough good fats, you should adapt faster. For those who are struggling with the process, consuming adequate salt is necessary to mitigate symptoms. Good quality salt helps to balance your electrolytes. Electrolyte imbalance, a deficiency of sodium, potassium and magnesium, is common during the flu and occurs due to the water weight lost at the start of the diet. As insulin levels decrease, kidneys excrete excess sodium which must be replaced (also the reason why bloat is reduced after cutting back on carbs). Homemade bone broth (from 100% grass-fed bones), is an outstanding way to restore electrolyte balance. Try including a cup each day during the adaptation process.

To ease carb cravings, you may choose to gradually transition into the diet, which will lessen symptoms, in comparison to going full speed ahead. Remember that each person has a different experience during adaptation, and the time frame to get into ketosis varies greatly. Don’t fear the flu and stay strong. Once adapted, the symptoms should dissipate, and you will start to fully enjoy the benefits of ketosis.

When is the best time to measure blood ketone?

I typically check my ketones in the morning, on a fasted stomach. More importantly, test ketones at the same time each day to observe patterns. If you’re in ketosis, blood ketones read between 0.5 and 5.0, with 1.5 to 3 being the ideal range for fat burning. To test my ketones, I use the Precision Xtra Blood Meter, which measures both blood ketones and blood glucose. Be sure to use ketone testing strips, not blood sugar testing strips, when using this device. NOTE: morning ketones are at the lowest (by about 25%) point of the day, so if you are in ketosis in the morning you will likely be in ketosis later in the day as well.

Should I be worried about getting a heart attack from all of the fat?

An all too common misconception: eating lots of fat will clog your arteries. But you should not use the ketogenic diet as an excuse to eat grain-fed (factory farmed) prime rib, cheese, and bacon all day long. This is because the type of fat you consume is of extreme importance for positive results and improving overall health. Avoiding toxic fats, including hydrogenated and partially hydrogenated vegetable oils (like canola and soybean oils), margarine, and trans fats, and fat from grain fed animals is fundamental. These man-made fats are used as an inexpensive means to extend the shelf-life of foods, yet the cost to your health is not worth the reduced grocery bill. Toxic oils cause cellular inflammation, at the root of most all modern disease. But the fix is simple: make an oil-change. Replace bad oils with healthy oils like coconut oil and MCT oil, and include full-fat, cultured dairy, grass-fed meats, pastured poultry and eggs, and wild-caught seafood. Good fats are the number one lacking nutrient in the American diet, and are essential to weight-loss, hormone production, and down regulating inflammation. Ironically, more and more studies are showing that saturated fats from grass-fed animals reverses atherosclerosis. (Mozaffarian D, Rimm EB, Herrington DM. Dietary fats, carbohydrate, and progression of coronary atherosclerosis in post-menopausal)

What would be a typical day’s menu on the keto diet?

Start the day (if not fasting) with pastured eggs and kale sautéed in coconut oil or grass-fed butter. Lunch could be a big mixed greens salad with plenty of non-starchy veggies, some roasted free-range turkey, feta cheese, and a generous pour of raw olive oil and apple cider vinegar. Dinner could be broiled wild salmon topped with hollandaise sauce and sautéed

asparagus. Easy! If you desire dessert, make whipped cream using grass-fed heavy cream, a touch of stevia (optional), and sea salt, topped with a few nuts for crunch. Keep it simple when beginning: focus on good fats, quality protein, and non-starchy veggies. Over time, you will find the right ratio that works for your body through continual experimentation.

What do you eat on a typical day?

As I stated above, I practice intermittent fasting most days, which means I only eat foods within a specified time window during the day, typically between 2PM – 8PM. Fasting has helped me get into (and stay in) ketosis, stay super lean, and has diminished my food cravings and the need to eat on a regular schedule. This is because my body has shifted over from burning sugar to burning fat for fuel. Fasting, however, doesn't work for everyone: it's another tool to try and observe how it works for you.

In a typical day, I do not eat breakfast, but drink organic coffee, adding plenty of good fat like grass-fed heavy cream, butter, and/or MCT oil for a brain boost. The coffee keeps me charged until early afternoon, when I may or may not have a meal. Lunch might consist of a large vegetable salad topped with pastured chicken, and plenty of good fat in a dressing. Due to my very busy schedule, I may just eat coconut oil and/or X-factor butter oil and some whey protein. I also love sardines in olive oil as a clean fish source. Dinner is typically grass-fed meat, sautéed veggies, raw cheese slices, and perhaps some whipped cream for dessert if my son Simon makes it for me!

What are some keto-friendly foods to keep stocked in my pantry?

Some items I like to keep stocked at home (I choose organic and local whenever possible): unsweetened, full-fat coconut products (oil, butter, milk, cream); MCT oil; cold-pressed olive oil; grass-fed beef and jerky; pastured poultry and eggs; wild-caught seafood; seaweed like nori (great for "burritos"); grass-fed, full-fat, cultured dairy like butter oil, ghee, and heavy whipping cream; raw milk and cheese; fermented cod liver oil; raw nuts and seeds (especially macadamia nuts) and nut butters; olives; fermented foods like sauerkraut and kimchi; non-starchy vegetables and leafy greens; avocados; low-glycemic berries; lemons and limes; whey protein powder; stevia; apple cider vinegar; sea salt; garlic; onions; mustard; fresh and dried herbs spices (especially turmeric, cinnamon, and fresh ginger root); sugar-free salsa; grass-fed beef and pastured chicken stock and vegetable stock.

To drink, I enjoy cultured dairy beverages like Suero Gold whey water and Amasai yogurt; Camano Island coffee; kombucha (watch the sugar); mineral water; assorted herbal teas; and the occasional glass of malbec wine.

What supplements are helpful during keto-adaptation and once in ketosis?

As noted, a crucial component to the diet is a high-quality salt. I typically use pink Himalayan salt or Celtic sea salt, and suggest consuming about 2 teaspoons each day. Other supplements that may be helpful include:

PTM (Potassium Stabilizer): Normalizes potassium, magnesium and sodium levels, critical for the adaptation process and easing keto flu symptoms. Foods rich in potassium include dairy, leafy greens, and avocados.

Magnesium: Very low-carb diets (less than 20 grams of carbs per day) are typically deficient in magnesium, so a high-quality magnesium supplement can be very beneficial. Taking magnesium at bedtime can also help regulate the sleep cycle. Foods rich in magnesium include nuts and seeds, fish, dairy, cocoa, and dark, leafy greens.

Multi-Vitamin: When following any restrictive diet, you want to make sure to cover all your nutritional bases. The only

multivitamin I've ever taken is Systemic Formulas SPECTRA, a 100% herb-based multivitamin and mineral supplement. It's a unique two component system: SPECTRA 1 contains water soluble vitamins in capsule form; SPECTRA 2 contains fat soluble vitamins in an oil-based liquid form. Together, SPECTRA 1 and 2 are complete cellular food.

I'd also like to mention here the widespread vitamin and mineral deficiencies rampant in our country. Common deficiencies include vitamins D, B12, and K2, magnesium, and iodine.

The ketogenic diet is one of many tools at our disposal that we can use to impact health; it works great for some, and not as well for others, since there are clearly many factors that influence its effectiveness and practicality. The only way to know if it will work for you is to try it yourself, under the guidance of a trained health practitioner.* If the ketogenic diet does work for you, keep it in your arsenal but don't take it too seriously. Enjoy your life, and (within reason) splurge on your favorite food once in a while. Thanks for the great questions, and stay tuned as we carry on the dialogue.

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