

A still life photograph of various keto-friendly ingredients. In the top right, a wooden bowl is filled with a mix of almonds and walnuts. To its left is a whole green avocado and a halved one showing the pit. Below the avocado is a head of green broccoli. In the center, a small wooden bowl contains white sesame seeds. To the right of the seeds is a glass of yellow oil. In the foreground, a large piece of raw salmon with visible marbling sits on a piece of parchment paper. Several fresh spinach leaves are scattered around the salmon and the sesame seed bowl. The entire scene is set on a light-colored, textured wooden surface.

HOW TO DO THE LOW-CARB/KETOGENIC DIET

LOSE FAT, FEEL BETTER, HAVE ENERGY

By Sean Hyson, C.S.C.S., Andrew Heffernan, Liv Langdon,
Phil White, and the Onnit Academy

TABLE OF CONTENTS

| | |
|---|----|
| Chapter 1: What Is A Ketogenic Diet? | 04 |
| Chapter 2: How Will A Ketogenic Diet Help Me Lose Weight? | 06 |
| Chapter 3: What Are The Health Benefits of a Ketogenic Diet? | 09 |
| Chapter 4: What Can I Eat On A Ketogenic Diet? | 11 |
| Chapter 5: What Can't I Eat On A Ketogenic Diet? | 13 |
| Chapter 6: What Does A Day of Keto Meals Look Like? | 15 |
| Chapter 7: Is The Ketogenic Diet Safe? | 18 |
| Chapter 8: I Work Out. Is A Ketogenic Diet Right For Me? | 19 |
| Chapter 9: How Do I Set Up A Keto Diet? | 20 |
| Chapter 10: Can I Drink On A Ketogenic Diet? | 22 |
| Chapter 11: Can A Vegan Be Keto? | 29 |
| Keto Recipes | 42 |
| FAQ | 66 |

INTRODUCTION

We all know that food is our main source of energy. So why then do most people claim to be tired all the time, when it's clear from looking at them that they get plenty to eat? The problem is that they don't get their energy from the right foods.

When you follow a diet that's high in carbohydrates, your blood sugar rises and falls sharply with every meal. When it goes down, so does your energy—this is the crash you feel shortly after lunchtime that makes you want to fall asleep at work in the afternoon.

By reducing the amount of carbs you eat and replacing them with healthy sources of fat, you can stabilize blood sugar and enjoy steady energy and greater mental focus all day. These are two characteristics of a ketogenic diet, the ultimate version of a low-carb approach to nutrition that's also a great strategy for losing weight, battling serious health problems, and promoting a myriad of other benefits for the body.

Let this book answer all your questions about how to “go keto,” including how to customize the diet to your own personal needs and preferences.



CHAPTER 1: WHAT IS A KETOGENIC DIET?

A ketogenic diet is very low in carbs and high in fat. It's similar to the popular Atkins diet, but the majority of calories come from fat and protein intake is lower.

Here's how it works: If you eat like most people, you take in the bulk of your calories from carbs. Carbs raise blood sugar levels quickly, forcing your pancreas to release insulin, which drives them back down. Insulin tends to store those carbs as body fat, so it pays to keep insulin levels low.

When you restrict carb intake and increase your fats, you send the body the message that it must switch fuel sources. **The liver begins to convert fat—both the fat you eat and the body fat you store—into molecules called ketones.** When the number of ketones rises to a certain level in your blood stream, you are officially in a state of ketosis. At this point, your body uses ketones as its primary energy source.

The medically-defined ketogenic diet **has 75% of daily calorie intake come from fat, 20% from protein, and 5% from carbs.** As we'll discuss further down, this version of the diet has reams of research supporting its use for multiple health interventions and fast weight loss. However, most of the benefits of ketosis can still be achieved when you consume additional, moderate amounts of carbohydrate. We think the medical model of five percent carbs is unnecessarily restrictive for most dieters, and it could hurt performance if you're an athlete or active exerciser, so we prefer taking a slightly different path.

A modified version of the keto diet where **40–60% of your calories come from fat, 20–40% come from protein, and the remaining 20% from carbs typically works great for most people.** (See Chapter 8: I Work Out. Is A Ketogenic Diet Right For Me?) We call this approach—which appears to be more practical and sustainable for most—Mod Keto, and use that term to refer to those numbers throughout this book. While it may not technically put you into ketosis, Mod Keto will keep insulin low enough to promote fat loss and mental focus while still providing enough energy for hard workouts. Maybe best of all, you'll enjoy the freedom to eat a wider breadth of foods than you could on a classic ketogenic diet.

MOD VS KETO

MODIFIED KETO DIET



Fat: 40-60%
Protein: 20-40%
Carbs: 20%

KETO DIET



Fat: 75%
Protein: 20%
Carbs: 5%

WHERE DOES THE KETOGENIC DIET COME FROM?

People have inadvertently followed ketogenic diets for as long as they've walked the earth. Before the advent of agriculture, when humans had to hunt and gather their food, it was common to fast for long periods and then take in mostly fat and protein foods, with only limited carbohydrates coming from berries and vegetables (the easiest foods to collect living in the wilderness).

Ketosis may have been discovered by cavemen, but it's been embraced by the medical community since its earliest days. Ketogenic diets have been formally prescribed to [treat epilepsy](#) since before 500 B.C. In the 1920s, they were adopted by Johns Hopkins Medical Center as a means of treating epileptic children, and have been used there ever since. In recent years, ketogenic diets have been investigated for their potential in treating several more diseases (see Chapter 3: What Are The Health Benefits of a Ketogenic Diet?)

CHAPTER 2:

HOW WILL A KETOGENIC DIET HELP ME LOSE WEIGHT?

Since you begin to burn more fat for fuel, ketogenic diets make losing pure body fat much easier.

Remember that when you eat carbs, your blood sugar (glucose) rises sharply. It rises when you eat anything, but carbs convert most quickly to glucose. **The pancreas releases insulin to take excess sugar out of the bloodstream, storing most of it as fat.** Because ketogenic diets minimize carb intake, insulin levels are kept low, limiting the calories that can be stored in your fat cells.

This is often cited as a reason why ketogenic diets tend to outperform low-fat diets in clinical trials. A [study](#) in the journal *Lipids* found that ketogenic dieters lost almost twice as much weight as a group following a low-fat diet over 12 weeks, even though calorie intake in both groups was the same. **Incredibly, ketogenic diets often promote weight loss even when calories aren't controlled.** A [trial](#) published in the *New England Journal of Medicine* allowed a keto group to consume as many protein and fat-rich foods as they wanted, while the low-fat dieters had to restrict their calories. After six months, the low-carb eaters enjoyed significantly greater weight loss, and still slightly more after a whole year.

If this makes you question the old adage that “a calorie is a calorie,” and that it’s the overall number of calories you eat that determines whether you gain or lose weight, you’re right to be skeptical. A [study](#) from *Nutrition & Metabolism* had subjects follow either a ketogenic diet or a low-fat diet and then switch diets for the same amount of time (50 days for the men in the study; 30 days for the women). In each case, the participants tried to cut 500 calories from what they had been eating, but in the keto approach, the men ended up eating significantly more. Nevertheless, cutting carbs worked better for losing fat for both men and women across the board. More impressive still is the fact that **the men lost three times as much fat directly from around their waists as they did dieting on low fat.**

Results are one thing, but no diet will work long-term if it makes you miserable to follow it. You'll quit, return to your old ways of eating, and regain the weight. But this is where a ketogenic or Mod Keto approach really shines. **Fats and proteins are highly satiating; eating them keeps you feeling fuller, so you're less likely to feel like you're "starving"**—even when your calories are low. The temptation to break your diet and pig out just isn't as strong as it is with lower-fat diets. A [study](#) in the *Journal of the American Dietetic Association* on overweight women found that not only did they lose more weight on keto than they did with a higher-carb, lower-fat plan, they reported feeling less hungry throughout the diet.

As we recently reported in our [rebuttal to the Netflix documentary *What The Health*](#), two of the earliest studies that compared the effects of carb- and fat-based diets found strikingly different outcomes in how the subjects felt and behaved. Although calories were equal for both groups, the high-carb group complained of being lethargic and depressed, while the high-fat eaters remained energetic and satiated from their meals.

A LANDMARK STUDY

Some of the most impressive research on low-carb dieting to date came to light in November 2018. One of the largest and most long-term studies on the effects of higher-fat eating and metabolism was published in the journal [BMJ](#).

Researchers collected 164 overweight adults and had them diet strictly until they lost about 12% of their body weight. This was done to intentionally slow the subjects' metabolisms and predispose them to regain weight quickly. At that point, the researchers wanted to test how different diets affected the metabolism.

The participants were then divided into three groups. One took in 20% of its calories from carbs (low carb), the second group 40% (control group), and the third group 60% (high carb). Protein intake for all three groups was equalized at 20%.

For the next five months, scientists controlled all the subjects' meals and snacks, and monitored the groups to ensure that no one gained or lost weight. The higher-carb folks ate meals such as burrito bowls with rice, and turkey with mashed potatoes. The lower-carb subjects ate similar foods but with fewer starches (lettuce instead of rice, mashed cauliflower over potatoes).

Without any extra effort, the 20% carbs people burned roughly an extra 250 calories a day, which researchers said could potentially result in a 20-pound weight loss over three years. Subjects in the low-carb group who normally produced higher levels of insulin saw those levels decrease dramatically, helping them burn about 400 extra calories daily.

Levels of ghrelin, a hormone that encourages hunger and body fat storage, also tanked among members of the low-carb group.

While the findings were clear that replacing carbs in the diet with fat is beneficial for the metabolism, the researchers clarified to the [*New York Times*](#) that processed carb foods—**those made with flour or refined sugar, such as breads and soda—were the key ones to eliminate from the diet.** Beans, whole fruits, and vegetables, they said, are still good food choices.



CHAPTER 3:

WHAT ARE THE HEALTH BENEFITS OF A KETOGENIC DIET?

Apart from all the pros of dropping body fat, a ketogenic diet can improve several other aspects of health and even treat serious disease. A ketogenic diet can...

1. INCREASE FOCUS

A carb-rich diet puts your blood sugar on a roller coaster ride all day. When it's down, so is your ability to think clearly and focus, colloquially known as “brain fog.” There hasn't been much research on the ketogenic diet's effect on brain fog in healthy people, but the first thing most notice after they cut carbs (even in the first day) is clearer thinking and a better attention span (that is, until they come down with the keto flu—see Chapter 7: Is The Ketogenic Diet Safe?)—which is very temporary).

Ultimately, once you're in ketosis, **the brain can get 70% of its energy from ketones**, so pay no attention to rumors you've heard that the brain “runs on carbs” and your IQ will drop when you cut them out. In addition, your body is adept at generating any additional glucose necessary through a process called gluconeogenesis. Some find that they're so alert on low carbs that they don't need coffee in the morning.

2. FIGHT EPILEPSY

Since ketogenic diets promote better thinking, it shouldn't be surprising to find that they have other positive effects on the brain too. Epilepsy is a brain disease that causes seizures and loss of consciousness. Research has shown that a ketogenic diet can help reduce symptoms in about half of epileptic patients. Furthermore, a [study](#) in *The Lancet* found that children who followed a ketogenic diet for three months—and previously hadn't responded to medication—saw their seizures decrease by an average of 75%.

3. FIGHT CANCER

Cancers thrive under high-glucose conditions where there is a lot of sugar in the bloodstream. It stands to reason then that reducing glucose levels would help to combat cancer cells. This is one theory behind why ketogenic diets are effective for treating tumors, particularly in the brain and digestive tract. A 2015 [article](#) in the *International Journal of Biochemistry and Cell Biology* sums up the findings of multiple studies on ketogenic diets and cancer with the following: “there is increasing evidence that the ketogenic diet may also be beneficial as an adjuvant cancer therapy by potentiating the antitumor effect of chemotherapy and radiation treatment.”

4. FIGHT DIABETES

Losing weight always helps to reduce the effects of type-2 “diabeetus,” and can prevent it in the first place. You already know ketogenic diets help on that front. But making the body run on ketones means that it will become more sensitive to any glucose you take in from carbs—you won’t need as much insulin to deliver it to your cells, and that provides a big relief to your pancreas. A [study](#) in the *Annals of Internal Medicine* found that obese patients with type-2 diabetes who went keto for just two weeks improved insulin sensitivity by 75%.

5. FIGHT HEART DISEASE

Based on mainstream media fear mongering, you might think that a diet high in fat and animal products could damage your heart, but research on ketogenic diets shows the opposite. A [review](#) of studies that pitted low-carb and low-fat diets against each other for better heart health found that the low-carb approach was more effective for reducing the risk of cardiovascular disease after six months and at least as effective (if not more) after 12 months. A 2012 [meta-analysis](#) in *Obesity Reviews*—23 studies were examined, including data from more than 1,100 subjects—confirmed the favorable effects of keto dieting on major cardiovascular risk factors.

6. REDUCE ACNE

Remember when your mom would tell you that your zits were caused by all the junk food you ate? She may not have been crazy after all. A 2012 [review](#) in *Skin Pharmacology and Physiology* concluded that a ketogenic diet used as a short-term intervention (30–60 days) can support hormone levels and decrease acne.

7. REDUCE FOOD ALLERGIES

Many people have allergies or intolerances to the gluten in wheat, as well as beans and sugary foods, without even realizing it. They assume that digestive problems and brain fog are a normal part of life, but they don’t have to be. As these foods aren’t allowed on a ketogenic diet, you may notice near-instant relief upon eliminating them. See Chapter 5: What Can’t I Eat On A Ketogenic Diet? for a full list of banned foods.

CHAPTER 4: WHAT CAN I EAT ON A KETOGENIC DIET?

In short, lots of fat and protein. Many times, when ketogenic diets are prescribed, dieters aren't asked to restrict their intake of either nutrient in any way—that includes letting people eat as many saturated fats as they like. Although there are exceptions, many people find that relying on fat and protein keeps them satisfied to the point where they don't feel the need to eat a lot of food. They don't overeat, so they don't have to keep close watch of their calories.

One of the great pleasures that a ketogenic diet offers is the liberal consumption of classic “guy foods.” **You're free to eat burgers (as long as they're without a bun), cheese, and even bacon**—although we'd prefer you source them from high-quality, organic, suppliers. Here's a list of the main food sources that get the keto stamp of approval.





MEAT

Classic ketogenic diets don't make any distinction about the quality and sourcing of your meats. Most diet researchers who are looking to help people lose weight quickly in a clinical setting don't care if they eat grass-fed, organic beef versus ground chuck that comes from a feedlot—but we do. There are proven nutritional [benefits](#) to consuming naturally sourced vs. conventional meats, especially in the long term. Do your best to eat organic, pasture-raised meats: red meat, chicken and turkey, and game meats. The Mod Keto diet we like has you eat these whenever possible.



WHOLE EGGS

Preferably from pasture-raised hens and high in omega-3 fats (for the same reasons as organic meat).



DAIRY

Organic and from grass-fed cows is crucial here. Butter, cream, unprocessed cheese (cheddar, not Velveeta). Note: milk is NOT included due to its carb content.



FIBROUS VEGETABLES

[Greens](#), peppers, onions, garlic, cauliflower, and so on. Although technically a fruit, and fruit intake should be limited (see the next chapter, What Can't I Eat on a Ketogenic Diet?), tomatoes are allowed, as they're low in carbs.



NUTS AND SEEDS

Go easy on these. While they're great sources of fat, nuts and seeds contain small amounts of carbohydrate that can easily add up to something significant because they're fairly easy to overeat (how many times have you absent-mindedly killed a jar of almond butter or a bag of pistachios?). If you're following Mod Keto, they're OK, but watch your portions. Macadamia nuts, pecans, and Brazil nuts are some of the safest choices.



FISH

Always wild caught if possible and the fattier the better. Salmon, tuna, trout, mackerel, and sardines are popular choices, whereas the larger predatory fish like tuna and swordfish are typically high in toxic metals like mercury and should therefore be avoided.



AVOCADOS

Bring on the guacamole!



UNREFINED OILS

Coconut, avocado, and extra-virgin olive oil, primarily.



SOME CONDIMENTS

[Salt](#), pepper, salsa, mustard, horseradish, and various herbs and spices.

CHAPTER 5:

WHAT CAN'T I EAT ON A KETOGENIC DIET?

Basically, anything high in carbs—no matter how nutritious it is otherwise—should be minimized or banned from your kitchen.

◆ SUGAR

This encompasses soda, fruit juice, smoothies, pastries, candy, and desserts, as well as some condiments like ketchup and barbecue sauce.

◆ ALCOHOL

No smart diet allows you to booze, but in addition to the problematic effects of alcohol by itself, most drinks contain sugar. However, the occasional small serving of dry red wine may not kick you out of ketosis or otherwise spoil your fat-burning efforts. See Chapter 10: Can I Drink On A Ketogenic Diet?

◆ PROCESSED FOODS

Crackers, chips, or any snacks labeled as “low-fat,” no matter what other nutritional benefits they may claim. Also included here: foods that contain sugar alcohols (such as sorbitol or xylitol). These are common in “sugar-free” foods and may negatively affect ketone levels.

◆ FRUIT

The sugar content is too great. However, small amounts of berries are low in sugar, and can be part of a ketogenic diet.

◆ GRAINS

Oats, corn, rice, pasta, bread, and other wheat-based products. See ‘Are There Any Exceptions To The Rules?’ below.

◆ BEANS

Peas, lentils, kidney beans, garbanzos, etc. Again, see our section on exceptions.

◆ PROCESSED FATS AND OILS

Mayonnaise, soybean oil, canola oil, and other vegetable oils whose fats have been refined can promote inflammation.

ARE THERE ANY EXCEPTIONS TO THE RULES?

On a strict keto diet plan, potatoes, sweet potatoes, beets, carrots, parsnips, and other starchy root vegetables and tubers are blackballed. However, if you're doing a ketogenic diet and working out, or the Mod Keto diet we like, you may want some extra carbs to support your workouts, and these foods should be your main source. See Chapter 8: I Work Out. Can I Do A Ketogenic Diet?

On Mod Keto, you can also get away with eating moderate amounts of other carb-based foods such as fermented bread (sourdough), sprouted grains, and beans like chickpeas. This version allows for a broader selection of foods because it recognizes the nutritional benefits of some carb foods regardless of their lack of compliance with a strict keto diet. **Sourdough and sprouted grains, for example, contain numerous vitamins and minerals in a highly digestible form**, and chickpeas are high in fiber, slowing down your body's digestion of their carbohydrates and preventing the blood sugar spikes that raise insulin. When these foods are eaten, especially after workouts when your insulin sensitivity is high, the small hazards they pose to the effectiveness of ketogenic dieting are greatly offset and don't outweigh the benefits.

CHAPTER 6:

WHAT DOES A DAY OF KETO MEALS LOOK LIKE?

Below is a sample day of eating for someone who's just easing into a ketogenic diet.

BREAKFAST

Omelet made with organic eggs, tomato, and mixed peppers, cooked in coconut oil. Sliced avocado.

LUNCH

Grilled wild-caught salmon. Salad dressed with olive oil and vinegar.

SNACK

Handful of cheese (from grass-fed, organic dairy), handful of almonds.

DINNER

Grass-fed burger topped with salsa and organic bacon. Asparagus spears dressed with organic, grass-fed butter.



Most beginning keto dieters don't realize that protein can raise insulin just as carbs can. The body actually makes carbs from protein when it needs to in a process called gluconeogenesis, **so it's important that any high-protein food you eat be paired with fat and fiber sources to slow its digestion** and keep insulin in check. Never eat egg whites—go with whole eggs and pair them with avocado. White fish are lean, so cook them in butter or oil, and eat them with vegetables.

Once you've gotten the hang of keto eating, to get better results, consider cutting the number of meals you eat back and combining the diet with long fasts (called intermittent fasting). Many people on keto diets fast by choice. **Avoiding food for long periods makes your body think that food is scarce, and it responds by making several adjustments to become more efficient with your energy.** [Research](#) from Dr. Valter D. Longo at the University of Southern California shows that fasting can help with weight loss and blood pressure, and can even alleviate symptoms of debilitating health conditions such as asthma and arthritis. You don't have to fast to make a ketogenic diet effective, but the two are often done in combination for the best results.

“Following a low-carb/ketogenic diet generally makes intermittent fasting easier and sustainable for the average person,” says Dominic D’Agostino, Ph.D., an associate professor at the University of South Florida and one of the world’s top experts on low-carb and ketogenic diets (ketonutrition.org). This is due to the appetite-control properties of eating abundant fats and proteins. If you had a big dinner with, say, fatty meats and avocado, you’re less likely to wake up ravenous and may be more comfortable skipping breakfast and waiting till lunchtime to eat.

Ease into fasting by skipping breakfast. Your body will go into fight-or-flight mode, which will help with alertness. You may not even need your morning coffee anymore. However, fasting doesn't have to mean avoiding liquids as well as foods. “Starting your day with a full glass of water, followed later by a cup of black coffee, sipped slowly over the morning hours, tends to have a mild appetite-suppressing and fat-mobilizing effect,” says D’Agostino.

To take full advantage of the diet, try to gradually scale back to having one meal per day at night. This isn't as severe as it sounds. **Without eating, your mind will be sharp and you'll burn fat at a greater rate.** To control hunger, you can continue drinking water and coffee, blended with butter or [MCT Oil](#), as needed (see What Supplements Can I Take on a Ketogenic Diet? in Chapter 9). At night, you can eat as much as you want. This strategy works well for people looking to lose weight (especially the very overweight) and improve general health.

Note, however, that if you're an athlete, you'll probably need to take in more food to support your activity and muscle mass. See Chapter 8: I Work Out. Is A Ketogenic Diet Right For Me?

HOW DO I KNOW IF I'M IN KETOSIS?

The only way to be sure is by testing your blood glucose and ketone levels with a monitor (we like the [Precision Xtra](#), available on amazon.com for \$30). But not only is this invasive (you have to prick your finger), it can get expensive, as the monitor requires test strips too which can be five dollars each. Ketosis can also be measured through devices that analyze breath and urine, but these aren't as accurate.

A low-tech, low-cost way to check that you're on the right track is to look for the telltale signs: keto flu and bad breath in the early stages (yes, we know this sounds bad, but we explain it in the next chapter, *Is The Ketogenic Diet Safe?*), and then reduced hunger and fast weight loss. If you're watching your carbs and staying true to the diet, it's just a matter of time before you settle into ketosis—or close enough to it (if you're following the Mod Keto protocol) to see and feel results.

Jeff Volek, Ph.D., R.D., and Stephen Phinney, M.D., Ph.D., are two leading researchers on ketogenic diets. In their 2012 book, *The Art and Science of Low Carbohydrate Performance*, they say that while there is no magic number of carbs that everyone should limit him/herself to, “as a ball-park guess, **we have found that 50 grams per day is a good target for most people to stay below**” in order to maintain ketosis. But genetics, activity level, your overall diet, and many other factors make each dieter's carb cap individual.

CHAPTER 7: IS THE KETOGENIC DIET SAFE?

We know... we know... A diet that's heavy on meat and all but bans fruit and whole grains flies in the face of conventional nutrition dogma, leaving many to wonder if going keto might be dangerous long-term, despite the numerous health benefits we listed earlier.

For most reasonably healthy adults, there's no evidence to suggest that ketogenic eating is harmful. Interestingly, our colleagues at Healthline.com unearthed a particularly powerful piece of evidence from the US Institute of Medicine's Food and Nutrition Board. Their 2005 [report](#) clearly states that, "The lower limit of dietary carbohydrates compatible with life apparently is zero, provided that adequate amounts of protein and fat are consumed." While they don't recommend consuming no carbs at all, and neither do we, it goes to show that extremely low doses are not only safe but natural as well.

WHAT IS THE KETO FLU?

As your body switches over from fueling itself with carbohydrate to fat, there is going to be a little bit of a lag. This is what people call the keto flu, since at some point during the first two weeks of a ketogenic diet people can feel lethargic, moody, have difficulty sleeping, and even develop bad breath.

Stick with it. All of this is normal and will pass as your body adjusts to ketosis. The bad breath is the result of a specific kind of ketone that exits the body through breath; you can mask it with a chlorophyll– or sugar-free mint.

It takes anywhere from three to six months for your body to become fully adapted to using ketones, but the worst should be behind you in a matter of days, and you'll be feeling better than ever.

CHAPTER 8:

I WORK OUT. IS A KETOGENIC DIET RIGHT FOR ME?

Sports nutrition science has long preached that carbohydrates are the body's best and preferred fuel source during exercise, but research is emerging to suggest that they don't have to be. A [study](#) published in *Nutrition & Metabolism* looked at overweight women who weight trained on a ketogenic diet, finding that they lost body fat without significant loss of lean body mass. Another [trial](#) from the *Journal of the International Society of Sports Nutrition* found that a month of keto dieting didn't negatively affect performance in gymnasts while decreasing their body fat levels. **Furthermore, the researchers determined that muscle was spared specifically due to ketosis.** In other words, despite a low-calorie intake, the athletes didn't lose significant amounts of muscle because their bodies used ketones for fuel—not protein from their muscle tissue.

Other studies have shown that ketogenic diets don't hurt strength or endurance (once the athlete is fully adapted to them), but if you're a dedicated gym goer or highly active person, we don't see a need to take the textbook keto approach. A more moderate, low-carb plan (such as Mod Keto) will work fine. According to Onnit's Director of Total Human Optimization, Kyle Kingsbury, a former pro athlete who has experimented with low-carb diets for years, getting 40–60% of your calories from fat, 20–40% from protein, and 20% from carbs is a good balance that will give you the weight loss and focus benefits of ketosis without the potential for low energy or slow recovery from exercise.

If you're a more passive exerciser and not doing aggressive workouts like high-intensity interval training (HIIT), which is characterized by short bursts of all-out work efforts interspersed with short rest periods, you won't need as many carbs and can therefore increase your fats even more. **In that case, a diet closer to 65% fat, 25% protein, and 10% carbs may be more appropriate.**

Dominic D'Agostino, one of the world's foremost researchers of ketogenic diets—and a former bodybuilder—has said that he personally takes in 65%–70% of his calories from fat and 20–30% from protein.

Try timing the carbs you do take in strategically. Carbing up at night after you've trained will make your liver and muscles soak up the carbs they need to recover from the workout and fuel your next one. Starchy, slow-releasing carbs like potatoes and other tubers would be perfect. Do NOT eat carbs before you train, as they will replace fat as your fuel source for the workout.

CHAPTER 9: HOW DO I SET UP A KETO DIET?

The beauty of a low-carb/ketogenic diet is its simplicity. For most people, eating more fat in place of carbs will prevent overeating and lower insulin levels so you lose weight quickly without having to track calories or macros. Start with that.

However, if you're an athlete or regular exerciser, or you find you've hit a plateau with your diet, you need to start reading labels and recording what you eat. In Chapter 1, we gave you percentages of total calories to follow, which begs the question, "How many calories should I be eating?"

The answer depends on your goals. If you want to lose weight, **multiply your current body weight by 10–12. If you're very overweight, choose the body weight you'd like to have and times that by 10–12.** This isn't an exact science; you just need a starting point. You can adjust your calories from there as things progress. If your goal is to maintain your weight but change your body composition (a little more muscle, a little less fat), multiply your body weight by 13–15.

For example, a highly active 180-pound man who wants to lose weight doing Mod Keto would set his calories at 2,200 ($180 \times 12 = 2160$). Fat will make up 60% of his diet, which is 1,320 calories (0.60×2200). Since there are nine calories per gram of fat, he'll eat about 150 grams of fat daily. Twenty percent of 2,200 is 440 calories, or 110 grams each of protein and carbohydrate (as protein and carbs both contain four calories per gram).

So, in short, **this 180-pounder should aim for 2,200 calories consisting of 150 grams fat, 110 grams protein, and 110 grams carbs to diet down.** Whether you work out or not, do your best to consume the bulk of your carbs in the evening with dinner. Not only will this keep your mind sharp during the day when you most need it to be, it will further help your body adapt to using fat for fuel.

WHAT SUPPLEMENTS CAN I TAKE ON A KETOGENIC DIET?

Going keto is much easier than it used to be. Products now exist that can help you reach ketosis sooner and bring you back into it after a cheat meal here and there. Exogenous ketones—including beta-hydroxybutyrate—are ketones made in a lab that function just like the ones your body makes from fat. They're particularly beneficial in combating the keto flu, helping you think more clearly while your body makes the adjustment. Onnit's new Total Keto Daily product contains such ketones.

MCT oil is another go-to for ketogenic dieters. A [study](#) in the journal *Diabetes* found that medium-chain triglycerides (MCTs)—a type of saturated fat—**improve cognitive function when blood sugar is low, encouraging the body to generate more ketones for the brain to run on.** And, as we reported in our [defense of coconut oil](#), MCT's are burned quickly for energy. A *Journal of Nutrition* [study](#) comparing subjects who consumed MCT's or the same amount of long-chain fats lost significantly greater body fat after 12 weeks.

Meanwhile, [research](#) from 2015 in the *European Journal of Clinical Nutrition* revealed that subjects who consumed supplemental MCT's ate less at meals afterward than those who were given processed corn oil. Their glucose raised less after a meal and their leptin, a hormone that promotes satiety, was higher.

Remember that proteins can raise insulin levels just as carbs do, potentially pushing you out of ketosis or preventing you from reaching it. **The ever-popular whey protein is one such offender.** In its place, you can supplement with an essential amino acid product. Take a look at products like NatureAminos, which you can pick up [HERE](#). Amino acids do act on insulin, but not to the same extent as whey. You'll get the muscle-building components of protein in an even more digestible form without threatening your ketogenic diet.

CHAPTER 10: CAN I DRINK ON A KETOGENIC DIET?

As booze tends to contain both alcohol and sugar, the question of where it can fit on a ketogenic (or other lower-carb) diet is a big one. But according to Dominic D’Agostino, “If you avoid the kinds of alcohol that have higher carbs and consume other types in low to moderate quantities, you don’t need to totally cut it out.”

We’ll raise a glass to that.

But let’s be clear, excessive alcohol consumption can jeopardize several processes in the body, whether you’re keto or not. **Your liver recognizes booze as a poison and prioritizes ridding your system of it. While it’s doing that, it stops making ketones and puts the brakes on gluconeogenesis** (more on this later). To add to the problem, if you choose sugary beverages, a single serving has the potential to kick you out of ketosis, or eat up most of your carb allowance for the day.

Furthermore, an alcoholic beverage can add hundreds of empty calories to your intake. Multiply the effect of one such drink by three or four or more—as in a night of binge drinking—and you’ll easily turn your finely-tuned metabolic engine into a clunky old rust bucket. (For your reference, a [study](#) from the National Institute of Health defines binge drinking as consuming five or more alcoholic drinks in a single session.)

Of course, booze is bad for the brain, too. One of the reasons heavy drinking makes you stagger like you just ate a Francis Ngannou uppercut is that [alcohol disrupts the cerebellum](#)—the brain region responsible for balance and coordination. In his book [Why We Sleep](#), University of California, Berkeley, professor Matthew Walker explains that even moderate drinking causes memory impairment. He cites a [Sleep study](#) that found that **participants who consumed alcohol on the same day they performed a learning exercise forgot about 50% of what they’d learned afterward**. Even those who had two nights of high-quality sleep between the exercise and their bout of drinking forgot roughly 40% of the information. Walker hypothesizes that alcohol interferes with the process of committing items from short-term to long-term memory, which usually takes place while we’re asleep.

HOW DOES ALCOHOL AFFECT YOUR KETOGENIC DIET?

When you drink, around 20% of the alcohol (aka ethanol) enters your bloodstream, where it goes on to affect the brain and other parts of the body. The remaining [80% goes to your small intestine](#) and then to your liver. Once in the liver, the process of metabolizing alcohol into energy begins via an enzyme called nicotinamide adenine dinucleotide (NAD). As NAD is also responsible for turning glucose into fuel, the liver temporarily [stops glucose metabolism](#) to deal with the alcohol.

“The liver is always going to prioritize metabolizing ethanol,” says Ben Greenfield, author of *Beyond Training* and host of the *Ben Greenfield Fitness* [podcast](#). “That will occur over and above gluconeogenesis and utilizing glucose in the bloodstream.” At the same time, as mentioned earlier, fatty acids will stop being converted into ketones. These systems won’t get back on track until the alcohol is burned for fuel.

To add further complications, your body must deal with the waste products that drinking alcohol produces. When your liver breaks down ethanol, it results in acetaldehyde. The body sees this as a toxic threat and slows down fat metabolism further so that it can deal with the load, which it converts to acetyl CoA. At the same time, a buildup of acetaldehyde levels along with the release of NAD prompts the liver to produce new fatty acids. **In other words, not only does drinking hurt your ability to burn fat, it encourages you to store more of it—a double whammy.**

Now consider that your body can only convert acetaldehyde into 30 ml of acetyl CoA per hour. That’s the best case scenario, with half that amount being the low end of the range. A typical pint of beer (16 ounces) will make most people produce just under 23 ml of acetyl CoA, so drinking just one has the power to prevent your body from burning fat for an hour. If you start imbibing at dinner and continue until last call, you could produce enough acetyl CoA to disrupt fat metabolism for 9 to 12 hours afterward.

WHAT ALCOHOL CAN I DRINK ON A KETOGENIC DIET?

Due to all the reasons listed above, alcohol intake should be minimized on any diet, and particularly on keto. But when you do drink, you can limit the damage by giving preference to the lowest-calorie and lowest-sugar beverages available. Below are some examples.

HARD LIQUOR

This stuff is your best booze bet. Whiskey, rum, vodka, gin, brandy, and tequila have 0 grams of carbs and 95–105 calories per shot.

DRY WHITE WINE

Dry sparkling wines contain 1.3–3 grams carbs and 96–150 calories per five-ounce glass. Other dry whites also fare well, with Brut Cava (2.5 g carbs and 128 calories) and Champagne (2.8 g carbs and 147 calories) rounding out the podium, and Pinot Blanc not far behind (2.85 g carbs and 119 calories).

DRY RED WINE

Pinot noir, Merlot, Cabernet, and Syrah (Shiraz) have 3.4–3.8 grams of carbs per glass and around 120 calories.

LIGHT (LOW-CARB) AND DARK BEER

While beer is one of the more carb-drenched booze choices out there, the lightest of the lightweight beers aren't overly dangerous to a keto dieter. Budweiser Select 55™ contains under 2g carbs and 55 calories per 12 oz, and Miller 64™ has 2.4g carbs and 64 calories. Stouts and porters are higher in calories than most other beer options, but they also offer more health-boosting properties, so we don't think you should exclude them on the weight of the numbers you see on their nutrition labels alone. Guinness Draught™ has 125 calories and 9.4g of carbs (of which only 0.8 grams are sugar), but also boasts high [levels of flavonoids](#), which can help combat inflammation, lower oxidative stress, and reduce the oxygenation of cholesterol.

WHAT DRINKS SHOULD I AVOID ON A KETOGENIC DIET?

The following drinks are known for packing a sugary punch. Indulge in them and you'll swiftly kiss your ketogenic diet goodbye.

ANY ALCOHOL SERVED WITH A SODA, SYRUP, OR FRUIT MIXER

Sodas cram up to 50 grams of carbs in every 12 ounces. Cocktails made with syrups or artificial fruit can pack 20 grams per serving.

REGULAR BEER

Some IPAs contain over 20 grams of carbs and more than 250 calories, and fruity beers can have more than 30 grams carbs and 300-plus calories.

LIQUEUR

Southern Comfort™ isn't too bad with just 4.8 grams of carbs and 98 calories per serving. But Jägermeister™ (17g carbs and 154 calories), Kahlua™ (22g carbs, 137 calories), and amaretto (26g carbs, 165 calories) belong in the Hall of Shame.

MARGARITAS

The amount of tequila's not the issue. The 100–175 calories and 30 grams of keto diet-busting carbs in the mix are.

WINE COOLERS

These pack a hefty 15–30 grams carbs and have between 200 and 250 calories.

AFTER-DINNER WINES

Moscato™, port, and sherry contain up to 18 grams carbs and 75–100 calories per 3 ounces.

HOW MUCH CAN I DRINK ON A KETO DIET?

It's impossible to give a one-size-fits-all answer for how much booze you can drink while still staying keto. We're all different, and, just as with other kinds of food and drink, alcohol rarely affects two people in exactly the same way. According to D'Agostino, your metabolic state before you start drinking—whether you're fed, fasted, or semi-fasted—can also affect the degree to which ethanol impacts you.

To be on the safe side, it seems best to **limit yourself to two drinks per night at the most**. This allowance assumes you're choosing from the What Alcohol Can I Drink on a Ketogenic Diet? list, as these options will make it easier to stay in ketosis, or at least low-carb enough that you'll avoid disrupting your hormone balance while also gaining the health benefits that alcoholic beverages can provide in moderation.

Remember that moderate drinking is not only tolerable to the body but also helpful. The University of California Irvine's Institute for Memory Impairments and Neurological Disorders [evaluated the lifestyle habits](#) of people who lived to be at least 90.

Researchers concluded that those who drank lived longer than those who abstained. Furthermore, **drinking up to two alcoholic beverages daily has been found to promote longevity**.

With that said, Greenfield, warns that going keto can, over time, make you a bit of a lightweight when you drink. "If you're on a ketogenic diet and your primary source of glucose comes from gluconeogenesis," says Greenfield, "you might have lower tolerance to alcohol, as your body processes it right away," he says. When your glycogen stores are depleted, as they are on keto, alcohol gets metabolized much faster and therefore goes to your head much sooner. "And as you metabolize more of the alcohol, you're going to be dealing with more acetaldehyde," says Greenfield, "so if you drink too much you could experience a worse hangover."

If you used to guzzle drinks with reckless abandon, your new low-carb lifestyle might cause you to get tipsy on lesser amounts. One drink alone may be plenty for you, so don't rely on your pre-keto limit as a guide.

If you want to get really scientific about your boozing, D'Agostino suggests buying an [Abbot Precision Xtra™ monitor](#) on Amazon.com or at a drugstore to measure your ketone and glucose levels before you start drinking and 30 minutes after you stop. "Then see how different kinds of alcohol and quantities affect you," he says. "I found that 12 ounces of dry wine is the most I should have, and I often only have six ounces."

It's not just a question of what kind of booze you choose, how much you drink, or how high the alcohol by volume percentage is. Your rate of consumption is also important. Try to avoid downing your first drink in one go. As mentioned earlier, your body can take more than an hour to process the byproducts created by the liver when metabolizing even a small amount of alcohol, so if you can, sip slowly to give yourself a fighting chance of keeping up with the intake.

"The toxicity of alcohol is related to how fast you administer it," D'Agostino says. "Once you start to feel buzzed, you're beginning to experience the negative effects. That's why I stick to a small amount spread out over several hours. Last night, I had a small glass of Merlot while I was preparing dinner and then a second one a couple of hours later. That had no affect on my glucose levels and a minimal impact on my ketones." A further consideration is exactly when you should drink. **If you're going to have a glass or two, it's best to do it a few hours before bed**—say, with dinner. The closer your alcohol consumption is to bedtime, the more it's likely to mess with your sleep and overnight metabolism.

ARE THERE ANY TRICKS THAT WOULD ALLOW ME TO DRINK MORE?

As alcohol is a diuretic, you've probably heard the recommendation to pound water before, during, and after drinking to offset the potential dehydration. Like alcohol consumption itself, drinking water is fine if done in moderation. Drinking too much fluid, however, will start flushing electrolytes (magnesium, potassium, and particularly sodium) out of your system, and that can make a hangover even worse. **Stick to an eight to 12-ounce glass of water per serving of alcohol and include a pinch of sea salt.** The salt contains trace minerals that aid in fluid retention.

Eating food will slow down the absorption of the alcohol, so try to combine your drinking with a main meal. Blood alcohol content can rocket up to three times higher if you don't have any food in your system. Whereas if you eat just before or while drinking, [peak alcohol concentration can be reduced by between 9 and 23%](#). Be sure you're eating the right foods too. While a night of drinking can be part of a cheat meal that finds you eating carb foods as well, it's smarter to stick to keto-friendly fare like meat and vegetables. D'Agostino says fat, protein, and fiber slow the absorption of alcohol and reduce the load it puts on your digestive system. A big meal may also help you feel more satiated, causing you to drink less.

There are exceptions, however. “Personally, I’ve found that a small glass of wine that’s been fermented for a longer period of time to lower the sugar content allows me to operate well on a low-carb diet,” says Greenfield. “I do this particularly when my liver’s glycogen stores are low, which would be when I’m in a fasted state or post-workout. So I break the rules and drink on an empty stomach. I usually have a small glass of wine from Dry Farm Wines or FitVine Wines at 7:30 or 8 p.m. after I’ve exercised and before I eat dinner.” If he’s drinking liquor, Greenfield uses club soda as a low-carb mixer.

Even if you do overdo it at the bar, don’t panic. There’s a simple prescription for getting back on track. “Just drink a couple of glasses of water and go for a brisk walk,” says D’Agostino. “This way you’ll combat the dehydration and increase your circulation and metabolism, which will enable you to clear out the alcohol and get back into ketosis.”



CHAPTER 11: CAN A VEGAN BE KETO?

At first blush, vegans and ketogenic dieters don't have a lot in common. One eats no meat; the other eats tons of it. One loads up on carbs; the other takes pains to avoid them. They seem to be on opposite ends of the eating spectrum.

But if you're passionate about animal right and you've found that your body just doesn't do well on carbs, it is possible to combine a vegan and keto approach. Be warned, however: it's not easy. Trying to align two disparate eating philosophies will force you to walk a fine line—particularly in a world of readily-available animal products and high-carb foods. It's an impressive feat to pull off. And, potentially, great for both your health and the environment.

So, if you're interested in being vegan and keto, here's how to do it.

THE VEGAN KETO FOOD LIST

The goal for the vegan keto-dieter is to eat:

- Plenty of plant-based fats
- Some plant-based proteins
- As few carbs as possible

Below are some foods that fit the vegan-keto bill nicely, courtesy of Liz MacDowell, N.C., founder of meatfreeketo.com. “This is basically every vegan keto-friendly whole food in your typical North American grocery store,” she says, “which can help take care of the what-can-you-eat-on-vegan-keto question.” Good protein sources are marked with a “p”, while foods that have a higher-carb content (and should, therefore, be eaten sparingly) are marked with an asterisk (*).

◆ NUTS

- Almonds*
- Brazil nuts
- Hazelnuts/filberts
- Macadamia nuts
- Pecans
- Peanuts*
- Pine nuts*
- Walnuts

◆ SEEDS

- Chia
- Hemp
- Pumpkin
- Sunflower

◆ NUT & SEED BUTTER

- Almond butter
- Coconut butter/coconut manna (“meat” of the coconut)
- Hazelnut butter
- Macadamia nut butter
- Peanut butter
- Pecan butter
- Sunflower seed butter
- Tahini Walnut butter

◆ OTHER WHOLE-FOOD FAT SOURCES

- Avocados
- Coconuts
- Olives

◆ HEALTHY OILS

- Almond oil
- Avocado oil
- Cacao butter
- Coconut oil
- Flaxseed oil
- Hazelnut oil
- Macadamia nut oil
- [MCT oil](#)
- Olive oil

◆ FRUITS

- Avocados
- Blueberries*
- Coconuts
- Cranberries
- Lemons
- Limes
- Olives
- Raspberries
- Strawberries
- Tomatoes
- Watermelon

◆ **VEGETABLES**

- Artichoke hearts
- Arugula
- Asparagus
- Bell peppers
- Beets*
- Bok choy
- Broccoli
- Brussels sprouts*
- Cabbage
- Carrots*
- Cauliflower
- Celery
- Celeriac*
- Chard
- Collards
- Cucumbers
- Daikon radish
- Dandelion greens
- Eggplant
- Endive
- Fennel
- Fiddleheads
- Garlic
- Jicama*
- Kale*
- Kohlrabi
- Lettuce (all types)
- Mushrooms
- Mustard greens
- Okra
- Onion
- Radishes
- Rhubarb
- Rutabaga*
- Shallots
- Spinach
- Squash—winter*
- Squash—summer
- Swiss chard
- Turnips
- Zucchini

◆ **SAUCES & CONDIMENTS**

- Chili sauce
- Hot sauce
- Hummus*
- Mustard
- Soy sauce/tamari
- Salsa
- Tomato sauce
- Vinegar

◆ VEGAN KETO PANTRY STAPLES

- Almond flour
- Artichoke hearts
- Baking powder
- Baking soda
- Coconut flour
- Coconut milk (canned, full fat)
- Cocoa or cacao powder
- Dark chocolate (85% and up)
- Glucomannan powder
- Hearts of palm
- Jackfruit (green, canned in brine)
- Psyllium Husk
- Nutritional yeast
- Vanilla extract (most brands OK, but check for sugar)

◆ VEGAN KETO FRIDGE STAPLES

- Apple cider vinegar
- Dairy-free yogurt*
- Dairy-free cheese*
- Pickles
- Micro-greens
- Sauerkraut
- Seitan*(p)
- Sprouts (all kinds)
- Tempeh (p)
- Tofu (p)

◆ OTHER VEGAN KETO MEAL STAPLES

- Herbs and spices
- Edamame
- Kelp noodles
- Kelp flakes
- Lupini beans*(p)
- Shirataki noodles
- Nori sheets
- Roasted seaweed

FOODS YOU CAN'T EAT ON A VEGAN KETO DIET

- Meat, fish, poultry, dairy, eggs, other animal products
- Gelatin
- Sugar (refined, cane, honey, corn syrup, and all other forms)
- Grains (wheat, pasta, rice)
- Legumes (beans)
- Starchy vegetables (yams, potatoes)
- High-carb nuts (chestnuts, cashews, pistachios)
- Partially-hydrogenated oils (trans fats)
- Refined vegetable oils**

**Even though they're not derived from animals and are high in fat, oils such as canola, corn, rapeseed, and margarine are highly processed and have a poor ratio of omega-3 to omega-6 fatty acids. They promote inflammation in the body. Because they have low smoke points, these oils are also terrible choices for cooking. High heat will turn the fats in the oil [rancid](#), and make it even more unhealthy, causing damage to your heart, neurological problems, and other health woes. Always cook with saturated fats, such as those found in coconut and red palm oil.

HOW MUCH CAN I LIMIT CARBS ON A KETOGENIC VEGAN DIET?

In our sandwich-with-a-side-of-bread culture, cutting carbs down to the wire trips many people up. “Exact numbers vary person to person, but in general, strict keto dieters need to consume less than 50 grams of carbs a day,” says exercise physiologist Michael T. Nelson, Ph.D. (miketnelson.com). “Some people need to go as low as 30 grams.” The Mod Keto approach allows two to three times as many, but it's still very low-carb compared to the diet of the average American. (For reference, one banana, one apple, or a single slice of bread would put you over your daily carb allowance on a strict keto diet.)

Cutting out grains, rice, bread, and pasta will reduce your carb intake substantially, but you'll also have to cut way back on nearly all fruits (exceptions are in the food list above, though even those should be eaten sparingly). Starchy vegetables like potatoes and yams are out, too. And the sugary dressings and sauces you may be so accustomed to that you don't even question them anymore... well, start questioning them.

If you're longing for carbs so badly that you feel your resolve to stay on the diet is breaking, it's possible to trick your [brain](#) that you're eating them by making approved foods look more like your starchy favorites. **Cauliflower can be grated into "rice," or boiled and mashed like potatoes. You can slice zucchini into noodles to (sort of) replicate pasta.** See "Vegan Substitutions for the Keto Diet" below.

But by and large, you'll simply have to develop a taste for fattier foods and rely on them to supply energy in place of carbs. Avocados, coconut oil, and nuts are all filling, flavorful options that can also power your workouts.

And speaking of working out, if you're a gym rat or avid runner, **prepare for your workouts to suck for a while until your body fully adapts to the diet.** If you're cutting out carbs for the first time, your body will need two weeks or more (and sometimes months) to fully support the demands of exercise with ketones. And if you've been relying on animal products, you may find it difficult to recover without the full array of amino acids that every serving of animal protein provides. You've chosen a hard road to travel, nutritionally, but don't lose heart. Time and persistence will force your body to accommodate just about any regimen you subject it to, and there are plenty of people whose performance has thrived on unconventional diets.

A 2012 [study](#) found that **gymnasts on a strict ketogenic diet for only 30 days lost weight without losing strength.** The researchers concluded that keto eating may actually prove advantageous to athletes in weight-class sports since it could allow them to keep their strength up when competing at lighter body weights.

HOW DO I GET ENOUGH PROTEIN ON THE KETOGENIC VEGAN DIET?

For anyone following any vegan diet, and athletes especially, the question always comes up: “How do you get enough protein?” Nelson recommends about 0.7g of protein per pound of your goal body weight as a baseline daily intake for active people—and most nutritionists recommend up to one gram per pound if you’re weight training. (Goal body weight means the amount you want to weigh—not the number that currently comes up on the scale. So, if you weigh 205 pounds but remember looking and feeling your best when you weighed 175, eat 0.7g of protein x 175, or about 120 grams daily.)

Your main challenge will be to find plant-based protein sources to hit that number that aren’t also high in carbs. To get an idea of what that entails, consider that an average-sized person who eats about 2,000 calories a day will need **100–200g protein daily (on the lower end for strict keto dieters, and on the higher side for those going the Mod Keto route)**. A three-quarter cup serving of sunflower seeds nets you 25–30g protein, but also costs you 10g of carbs. Almonds have a similar protein-to-carb ratio at 30g to 15g per cup. The key is to accumulate enough protein from vegan sources without letting your carbs creep up too high.

Your best bet for low-carb vegan protein may be hemp seeds, which provide 30g protein and 8g fiber (NOT counted as carbs) in a mere half cup. Seitan, which is made from wheat, is another good choice and offers about 18g protein and 2g carbs every three ounces. Tofu and tempeh rank high as well (tofu has an 8:1 ratio of protein to carbs; tempeh is about 6:1).

If you’re willing to go the supplement route, hemp and other vegan-sourced protein powders such as rice and pea, which have about a 5:1 protein-to-carb ratio, are the best choices and may be indispensable for athletes and workout fiends.

If you were doing a more conventional ketogenic diet previously and relying on animal foods, you may have only counted the protein in those foods toward your allotment for the day because they are complete sources. In other words, the protein in animal products contains all the essential amino acids that your body needs from food and in substantial amounts. This is a rare find in plant foods, and the reason that bodybuilders have historically kept track of the protein they eat from chicken, beef, and fish, but don’t consider the amount they take in from vegetables, grains, and nuts. The thing is, though, while they may be less bioavailable than animal foods, **plant proteins are still usable by your body and still count toward your total**—and if you’re going to forgo animal products entirely, you’ll need to get them in to support muscle, performance, and general health. Otherwise, you’ll be protein deficient.

Vegans have long known that they can't get all the amino acids they need from one source of plant protein, so they make an effort to eat a diverse selection of them and often combine foods in the same meal to get a complementary assortment of aminos. You don't need to do this at every meal—your body can hold on to the aminos from one food a few hours until you eat another food with aminos that complement them and form a complete protein. But don't get in the habit of basing your meals around only tofu or only hemp. Eat as broad a menu as you can to ensure the richest nutritional intake possible. (See more reasons to limit tofu under the vegan substitutes list below.)

VEGAN SUBSTITUTES FOR THE KETO DIET

If you're already a keto eater used to animal products, the list below will give you ideas on how to switch to zero-cruelty food options while keeping carbs low. (Likewise, it will help vegans find lower-carb alternatives to their starchy or sugary favorites.) As always, be extra sure you're staying faithful to the diet by checking labels for the presence of added sugar, carbs, and hydrogenated oils (harmful, processed fats that have no place in any healthy diet).

REPLACE THE FOODS YOU'RE CURRENTLY EATING IN THE LEFT-HAND COLUMN WITH THOSE IN THE RIGHT-HAND ONE.

DAIRY FOODS

| | |
|--------------------|---------------------------------------|
| Milk | Coconut Milk, Almond Milk |
| Cream | Coconut Cream |
| Butter | Coconut Oil, Vegan Butter |
| Eggs (for cooking) | Flax Seeds (add water in a 1:3 ratio) |
| Eggs (for meals) | Silken Tofu, Veggies |

GRAINS AND STARCHES

| | |
|-----------------|------------------------------------|
| Sandwich Bread | Lettuce Wraps |
| Tortillas | Flax Tortillas |
| Pasta | Shirataki sand/or Zucchini Noodles |
| Rice | Cauliflower Rice |
| Mashed Potatoes | Cauliflower Mashed Potatoes |
| Oatmeal | "Noatmeal" ? |
| Cereal | Chia Pudding, Flax Granola |
| Pancakes | Peanut Butter Pancakes |
| Waffles | Almond Flour Waffles |

SNACKS

| | |
|----------|--|
| Chips | Dehydrated Vegetables (including Kale Chips) |
| Crackers | Chia Seed Crackers |

DESSERTS

| | |
|-----------|--------------------------------------|
| Ice Cream | Avocado Ice Cream, Low-Carb Sorbet |
| Brownies | Macadamia Nut, Avocado, Almond Flour |
| Pudding | Avocado Pudding |

Processed soy-based meat substitutes (such as Boca Burgers) and protein powders are major go-to's for people transitioning to vegan diets, but they come with a catch. A 2016 position [paper](#) published by Virginia State University explains that soy contains isoflavones, a kind of plant estrogen that can act like the female hormone in humans. While typical serving sizes (one to three of soy foods, or less than 25g of soy protein from non-concentrated sources like tofu) have not been shown to be problematic, **amounts more than that (totaling around 100mg isoflavones or greater daily) could negatively impact testosterone.** To our thinking, why take the risk? It may be best for a keto dieter to get the majority of his/her protein from nuts, seeds, vegetables, and supplements and less from soy products, apart from the occasional slice of tofu. Dominic D'Agostino agrees. "I generally avoid soy isolate and soy milk," he says. "But I don't think this is a major concern unless you are consuming large amounts of soy." Note that fermented soy products—such as soy sauce and tempeh—don't pose the same risk, and can, therefore, be eaten more liberally.



VEGAN KETO DIET SAMPLE MEAL PLAN

The following menu, courtesy of Dr. Nelson, will give you an idea of how a day of eating on a vegan keto diet could look (with a Mod Keto carb allowance). One thing's for sure: you can eat a high volume of food without having to worry about taking in too many calories, so you're unlikely to gain weight by accident with this style of eating. It's easy to stay satiated due to the fat content and the abundance of fresh vegetables makes this diet rich in phytonutrients and fiber. On the downside, it's very tough to get enough protein in. As you can see, aiming for the bare minimum amount—20% of calories—almost certainly requires supplementation.

Breakfast

Smoothie made with:

Rice protein powder (30g protein)

½ cup mixed berries

1 tbsp MCT oil***

1 ½ tbsp almond butter

1 cup chaga tea

Lunch

3 servings tofu (300g)

2 cups asparagus, baked

2 tbsp MCT oil, as dressing

Snack

Salad with:

1 green bell pepper

2 cups cremini mushrooms

4 oz chopped onion

1 serving tempeh (100g)

1 tbsp olive oil

2 oz vegan teriyaki sauce

Dinner

Salad with:

2 cups spinach

4 oz cucumber

4 oz tomato

1 cup red cabbage, chopped

1 tbsp olive oil

¼ cup walnuts

Totals: 1,728 calories, 86g protein, 78g carbs, and 125g fat

***Whether you go full or Mod Keto, supplementing with [MCT oil](#) can help support ketosis by providing a quick-burning fat for fuel, says D’Agostino. Other helpful strategies for making a keto diet more user-friendly, he says, include “eating in a time-restricted window [such as 16 hours of fasting followed by an eight-hour period in which you get all your food in], and breaking the fast with a ketone supplement. You can have a whole-food vegan keto meal a few hours later.”

While it hasn’t been formally studied, “It is generally observed that, if you are keto-adapted,” says D’Agostino, “it is easy to fast for prolonged periods of time. This has practical benefits for occupations where stopping to eat would be an inconvenience—such as for military personnel—and jobs where you do not want to lose the flow of productivity.” If you do get hungry during a fast, D’Agostino recommends taking a supplement that provides ketones (known as exogenous ketones), which will help sustain ketosis and energy. “I typically take a ketone supplement late afternoon and follow up with a whole-food meal in the evening,” he says. Onnit’s Total Keto Daily offers exogenous ketones.

COMMON VEGAN KETO DEFICIENCIES (AND HOW TO FIX THEM)

OK, you’ve banished nearly all carbs from your diet, kicked out the animal products, found a way to get all your protein in, and have fallen in love with avocados. You’ve pulled off the triple-Axel of diets... or have you? In your admirable pursuit of both personal and planetary health, there’s still a good chance you may become deficient in one or more key nutrients essential for long-term health. These nutrients include:

Vitamin B12 (aka cobalamin)

It’s essential for your skin, eyes, hair, and nervous system, Metabolically, it helps you digest protein, fats, and carbs. Unfortunately, B12 is hard to come by in plant foods. Some decent vegan, lower-carb food sources include nutritional yeast, fortified almond milk (which only has 1g carbs/serving) and nori (purple seaweed, 0.5g carbs).

Still, most plant foods that offer B12 pack a lot of carbs at the same time (you’ll blow through 5g carbs getting your B12 RDA in nutritional yeast), so Nelson suggests getting the vitamin via a vegan supplement. Look for one that provides 6–10mcg of methylcobalamin (a form of B12), as opposed to cyanocobalamin, which is absorbed more readily. Onnit’s [Active B Complete](#) works here.

DHA and EPA

These omega-3 fats provide building blocks for cellular structures throughout the body and aid in the prevention of cardiovascular disease. Fish oil is the most common source of DHA and EPA, but a good vegan source—and one that, arguably, offers a better concentration of DHA—is algae (which is where those oily fish get their omega-3s from anyway). By supplementing with algae oil, you’re effectively cutting out the middle-fish. Aim for about 300mg/day.

Iron

This mineral is the key ingredient in hemoglobin, which transports oxygen from your lungs to the rest of your body. When levels get low, hemoglobin drops, and energy and vitality take a nosedive. Hair and nails get brittle and weak. If you’ve ever met a vegetarian who looks pale and routinely complains of exhaustion, low iron is often the reason.

Vegetable-sourced iron, known as non-heme iron, is harder to absorb than heme iron, which is found in animal products. This is why iron levels can plummet even when a plant-based dieter eats iron-rich foods like Swiss chard, nuts, and seeds. It’s wise, then, for vegan keto eaters to add a vegan-based iron supplement to their diets. This goes double for women, who lose some iron every month through menstruation. For women 19–50, 18mg of iron per day is recommended.

VEGAN KETO DIET RECIPES

Being a vegan keto dieter doesn’t have to limit you to salads and smoothies. It is possible to enjoy more gourmet fare by getting a little creative with how you prepare food. Liz MacDowell, a holistic nutrition consultant, and longtime keto dieter herself, offers up the following recipes, also available on her site meatfreeketo.com

VEGAN KETO RECIPES



VEGAN CHILI “FISH” TACOS WITH HEMPSEED SOUR CREAM

Ingredients

Fish:

1 can hearts of palm, drained, rinsed, and chopped
2 tbsp tamari, soy sauce, or liquid aminos
½ tsp garlic powder
½ tsp Sriracha or chili paste
1 tbsp sesame oil

Sour Cream:

1 cup culled hempseeds
¼ cup lemon juice
¼ cup water
Pinch of salt

Fixings:

Romaine lettuce boats for taco shells
About a ¼ cup shredded purple cabbage
1 scallion, chopped
kelp flakes to taste (optional)
juice of 1 lime

Directions

1. Add all hempseed sour cream ingredients to a blender and process until smooth. Add water if you want a smoother, creamier texture. Set aside.
2. Place a saucepan over low heat and pour in the sesame oil. Add the hearts of palm mixture from step 1 and sauté until everything is warm and the excess liquid is absorbed (about 5 minutes).
3. Let the hearts cool a bit and then assemble tacos by layering the hearts in the lettuce boats first, then the cabbage, sour cream, and scallions. Sprinkle kelp flakes on top (if desired) and finish with lime juice.

Servings: 2, **Calories per serving:** 215, **Protein per serving:** 11g, **Carbs per serving:** 4g, **Fat per serving:** 16g



VEGAN KETO PROTEIN BROWNIES

Ingredients

1 ½ cups warm water
½ cup peanut butter
¼ cup sugar substitute
2 scoops plant-based protein powder
¼ cup cocoa powder
2 tbsp coconut flour
2 tsp baking powder

Directions

1. Preheat oven to 350 degrees and coat a baking sheet with non-stick cooking spray. In a bowl, combine the water, peanut butter, and sugar substitute.
2. In a separate bowl, sift together protein powder, cocoa, coconut flour, and baking powder.
3. Mix the dry ingredients into the wet ones. A thick batter with a frosting-like texture will form.
4. Scoop the batter into the pan, smooth the surface, and bake 40–45 minutes (check that it's done by inserting a knife; it should come out clean). Let cool before serving.

Servings: 8 brownies, **Calories per serving:** 157, **Protein per serving:** 12.5g,
Carbs per serving: 4.2g, **Fat per serving:** 16g



LOW-CARB SANDWICH BREAD (SOY-, GRAIN-, AND GLUTEN-FREE)

Ingredients

½ cup psyllium husks
3 tbsp ground flax seed
1 tsp baking powder
Pinch of salt (add up to 1 tsp if using unsalted peanut butter)
1 cup water
½ cup peanut butter (almond and sunflower seed butter work too)

Directions

1. Preheat oven to 350 degrees. Add psyllium, ground flax seed, baking powder, and salt in a mixing bowl and whisk until thoroughly combined.
2. Add water to the mixture and continue whisking until all the water has been absorbed. Mix in peanut butter until the mixture forms a uniform dough.
3. Line a baking sheet with parchment paper. Scoop mounds of the dough onto the paper and flatten them into discs that are about a quarter-inch thick. Bake 60 minutes.

Servings: 4 rolls, **Calories per serving:** 252, **Protein per serving:** 9g,
Carbs per serving: 4g, **Fat per serving:** 12.5g

Want even more recipe options? See the next section, and pick up [The Ketogenic Cookbook](#) by Jimmy Moore. It's the most comprehensive collection of tasty keto-friendly eats we've come across yet.

KETO/LOW-CARB RECIPES



KETO OVERNIGHT N'OATS

Yields: 1 serving, **Prep Time:** 5 minutes, **Chill Time:** 3 hours, or overnight in fridge, **Difficulty:** Easy

Ingredients

1 tbsp. [Onnit Snickerdoodle FatButter](#)
3 tbsp. hemp hearts
3 tbsp. unsweetened shredded coconut
¼ cup crushed nuts of choice*
2 tsp. chia seeds
½ cup unsweetened vanilla almond milk
½ tsp. sugar substitute*
¼ tsp. SweetLeaf Stevia Drops, vanilla creme**
¼ cup berries, optional
Ground cinnamon to taste

**We used organic, raw crushed cashews and walnuts.*

****If you don't have this on hand, you can substitute with ¼ tsp. vanilla extract plus 2 tsp. granular sugar substitute of choice, like erythritol-based "Swerve" or Stevia powder.*

Directions

1. Mix all ingredients except the fruit in a Tupperware container or mason jar. Mix with a spoon until combined. Don't worry, the chia seeds and hemp will absorb the excess milk to create a more oatmeal-like consistency.
2. Place in refrigerator for 3 hours or overnight.
3. Top with fresh berries and nuts of choice when ready to enjoy. If you'd like a little more protein, add 1 scoop of Onnit's Vanilla Whey Isolate protein powder when mixing prior to refrigeration.



SHEET PAN EGGS WITH SAUSAGE, ASPARAGUS, AND GOAT CHEESE

Yields: 12 servings, **Cook Time:** 20 minutes, **Difficulty:** Easy

Ingredients

12 spears of asparagus
1 yellow onion, organic
2 Andouille chicken sausage, nitrate free
¼ cup. goat cheese
12-14 eggs, pasture raised
¼ cup heavy cream
2 tbsp. grass-fed butter
[Himalayan salt](#), to taste
Black pepper, to taste

Directions

1. Preheat oven to 350-degrees Fahrenheit.
2. Slice the onion. When caramelizing onions, you want to slice against the grain, so chop off each end (the bud and the root), then lay the onion on one of the flat surfaces. Slice onion in half through the core. Lay flat again, and starting at the root end, slice against the grain.
3. Chop asparagus and sausages into 1" bite-size pieces. In a medium saute pan over medium heat, add the chopped sausage. Once the edges begin to brown, add the onion and 1 tbsp. of butter. Turn down to medium-low heat. Once the onions soften and begin to caramelize, add in the asparagus. Saute for another 5 minutes, and set aside.
4. Grease sheet pan with raised edges using remaining butter.
5. In a large mixing bowl, whisk the eggs, heavy cream, and season with salt and pepper.
6. Add sauteed sausage, onions and asparagus to the sheet pan. Top with egg mixture. Dot with cheese evenly. Bake for 15-20 minutes. Cut into squares.

Servings Ideas

Toss arugula in lemon juice and olive oil. Serve salad and sliced avocado on top of two egg squares.

If you're not following a strict ketogenic diet, you can cut the eggs into perfect-sized squares to fit a breakfast sandwich. Slice and store in an air-sealed container for up to three 3 days in the fridge.



SHAKSHUKA

Yields: 3 servings, **Prep Time:** 10 minutes, **Cook Time:** 20 minutes, **Difficulty:** Easy

Shakshuka is a traditional Mediterranean breakfast that originated in Northern Africa, but is commonly served in Israel. There are similar variations throughout the Middle East, like menemen in Turkey. It's essentially poached eggs in a flavorful tomato sauce. This popular dish is simple to whip up, involves ingredients you probably already have in your pantry and fridge, and includes only wholesome, real food ingredients.

Ingredients

¼ cup extra virgin olive oil
1 large yellow onion, thinly sliced
1 bell peppers (any color), cored, seeded, & thinly sliced
1 hot pepper (jalapeno or serrano), cored, seeded, & thinly sliced
3 garlic cloves, minced
28-oz. can organic whole tomatoes
½ tsp. sugar substitute*
2 tsp. sweet or smoked paprika

1 tsp. ground cumin
6 large eggs, pasture raised**
2 tsp. [Himalayan salt](#)
½ tsp. black pepper
Fresh parsley leave, chopped

**We used Monk Fruit Sweetener by Lakanto.*

***We love using Vital Farms' pasture-raised eggs!*

Directions

1. Heat 3 tbsp. olive oil in a large cast iron skillet on medium heat. Add the onions and peppers. Stir and cook until the vegetables have softened, about 10 minutes. Add in the garlic and continue cooking for another 3-5 minutes.
2. Add the tomatoes, spices, sugar substitute, and about 1 tbsp. of fresh parsley. You can break up the tomatoes with your spatula or spoon in the skillet or crush up with your[clean] hands prior to adding in. Bring the mixture to a simmer.
3. Make 6 spaced-out indentations in the tomato mixture, then gently crack an egg into each indentation. You may want to crack each egg into a small bowl first, then add the egg to each hole to avoid breaking the yolk or having egg shells sneak into the mix. Reduce the heat to low, cover with a lid, and cook until the egg whites are set and no longer translucent, about 6-8 minutes.
4. Sprinkle fresh parsley and mint for garnish on top. If you want to pack in even more flavor, you can add on crumbled feta cheese or sliced olives on top. If you're not following strict keto, serve with fresh sourdough bread to soak up all the goodness, or a side salad for extra greens!



ICED ALMOND MOCHA

Yields: 1 serving, **Prep Time:** 5 minutes, **Difficulty:** Easy

This creamy, sugar-free cold-brew blend was made for those who don't like to eat first thing in the morning. We added a touch of plant-based protein for added nutrients and MCT Oil for easily-converted energy. It's the perfect sweet treat for that midday slump or satiating start to your day!

Ingredients

8 fl. oz. cold brew
4 fl. oz. coconut cream or milk
1 tbsp. [Onnit Almond Milk Latte Emulsified MCT Oil](#)
1 scoop [Onnit Powerfood Active](#), choco-maca flavor
1 tsp. Four Sigmatic 10-mushroom blend, optional
Ice

Directions

1. Add all ingredients to a blender. Pulse until smooth and pour over ice.



AVOCADO STUFFED WITH BLT CHICKEN SALAD

Yields: 2 servings, **Prep Time:** 10 minutes, **Cook Time:** 20 minutes, **Difficulty:** Easy

Ingredients

1 cup shredded rotisserie chicken
2 tbsp. Primal Kitchen avocado oil mayonnaise
3 slices uncured, nitrate-free bacon
½ tbsp. rendered bacon fat
2 tbsp. diced red onion
[Himalayan salt](#), black pepper & garlic powder, to taste
2 ripe avocados
¼ cup thinly sliced romaine lettuce
¼ tomato, diced

Directions

1. Preheat oven to 400-degrees Fahrenheit. Lay bacon strips flat on raised sheet pan. Cook for 20 minutes, flipping once in between. Remove bacon and lay flat on paper towels. Save the rendered fat in the pan for this recipe and in future cooking (can I get a YAS?!)
2. In a mixing bowl, add shredded chicken, mayonnaise, diced red onion, rendered bacon fat, and spices. Mix to combine.
3. Slice the avocados in half. Carefully remove the pits and discard. Scoop out about 1 tbsp. of avocado meat (then eat it as a pre-meal snack). Add chicken salad in each half.
4. Crumble bacon on top of chicken salad, then sprinkle diced tomato and lettuce on top. Serve with a spoon!



KETO TUNA MELT CASSEROLE

Yields: 6 servings, **Cook Time:** 30 minutes, **Difficulty:** Easy

Ingredients

1 head of cauliflower
3 egg whites*
3 cans wild caught tuna
Juice from 1 lemon
1 avocado, pitted, skinned, and mashed
Avocado oil based mayonnaise
2 cups raw cheddar cheese, grated
2 tbsp. avocado oil

Dill pickles (sandwich slices)
[Himalayan salt](#), to taste
Black pepper, to taste
Broccoli sprouts, garnish
Hot sauce, to taste

**Save the yolks for repurposing. In addition to being a great source of healthy cholesterol, egg yolks contain the highest dietary source of choline, a micronutrient that plays a key role in genetic expression and suppression, as well as, brain and eye health.*

Directions

1. Preheat oven to 425 degrees Fahrenheit.
2. Make cauliflower 'rice' by pulsing organic cauliflower florets in a blender or food processor until rice size pieces are formed.
3. Transfer cauliflower rice to a oven-safe casserole dish. It should cover the bottom about ½ inch thick. Drizzle avocado oil on top, and sprinkle with salt.
4. Bake for 15 minutes or until the 'rice' is soft and the edges are golden brown.
5. In a small bowl, whisk three organic pasture-raised egg whites. Spread evenly on top and stir into the 'rice'. Bake in oven for an additional five minutes, or until the base is solid. Save the egg yolks for making a dessert, like our [Keto Eggnog](#).
6. Spread over your favorite tuna salad recipes. I like lemon, avocado mayonnaise, a little bit of fresh dill.
7. Spread a layer of grated raw cheddar cheese. Bake in the oven until cheese is super melty, about five minutes. Remove from oven.
8. Add a layer of smashed avocado with more sea salt and black pepper. Cover the top with pickle slices, and garnish with broccoli sprouts. Add hot sauce to taste. Serve warm.



GUT-HEALING BACON & SHRIMP CAULIFLOWER CHOWDER

Yields: 6 servings, **Cook Time:** 1 hour (so worth it), **Difficulty:** Medium

Ingredients

8 slices bacon, uncured and nitrate-free
1 lb. shrimp, uncooked, peeled, deveined, tails removed
1 tbsp. grass-fed/pastured butter*
1 yellow onion, diced
4 cloves garlic, minced
2 yellow bell peppers, membranes and seeds removed, diced
2 stalks celery, diced
1 head cauliflower, roughly chopped into bite-size pieces
1 tsp. smoked paprika
1 tsp. fresh thyme or ½ tsp. dried thyme

**We love using Vital Farms' pastured butter*

***We used Kettle and Fire's chicken bone broth and mushroom chicken bone broth.*

****We used Strauss Family Creamery Organic Half and Half.*

1 tsp. [Himalayan salt](#)
¼ tsp. red pepper flakes
Ground black pepper, to taste
4 cups chicken bone broth**
1 cup organic half'n'half from grass-fed cows***
Green onions, for garnish

Directions

1. Slice the bacon into small pieces. Saute bacon in a large 3-qt. pot on medium heat for about 10 minutes, or until crisp. Using a slotted spoon, transfer the bacon bits onto a paper-lined plate, and set aside. Pour rendered bacon fat into a small ramekin, leaving about 1 tablespoon in the pot.
2. Chop the shrimp into bite-size pieces. Add to the pot. Cook until pink, about 4 to 5 minutes. Be sure to watch carefully because shellfish can overcook and become rubbery very quickly. Remove with slotted spoon and set aside on the same paper-lined plate. Leave the juices in the pot.
3. Add the butter, diced onion, minced garlic, and chopped celery to the pot. Cook for 3 to 4 minutes until they start to become translucent. Add in the chopped cauliflower, thyme, smoked paprika, red pepper, salt, and black pepper. Cover and cook for about 5 to 7 minutes until the cauliflower is soft enough to pierce with a fork.
4. Add in the diced bell pepper, bone broth, half and half, and remaining rendered bacon fat. Cover, bring to a boil, then reduce heat and simmer for 15 minutes.
5. Using a ladle, add ½ of the soup to a high-powered blender. Blend until smooth; it will be thick. Pour this mixture back into the pot. Add in the cooked shrimp and bacon pieces. Save some bacon pieces for garnish.
6. Serve warm. Garnish with sliced green onions, bacon and fresh thyme. This delicious bowl of Heaven can be stored in the fridge for up to 5 days, or freeze to keep longer, in an airtight container.



ZUCCHINI NOODLES WITH HOMEMADE BISON MARINARA

Yields: 4 servings, **Cook Time:** 45 minutes, **Difficulty:** Easy

Ingredients

| | |
|---|---|
| 1 lb. ground bison | 6 leaves fresh basil |
| 1 28-oz. can organic whole peeled tomatoes* | 1 tbsp. fresh parsley, chopped |
| 1 tbsp. tomato paste | 2 tsp. dried oregano |
| 1-2 celery stalks, diced | ½ tsp. red pepper flakes |
| 1-2 carrots, peeled and diced | Himalayan salt , to taste |
| 2 cloves garlic, minced | 4 Large zucchini (or 6 medium zucchini) |
| ⅓ cup extra virgin olive oil (smoke point 325°) | Parmesan cheese |
| 1 yellow onion, diced | |

Directions

1. Spiralize the zucchini. Set aside in a large bowl. You'll need the vegetable slicing device for this, but whether you're an adult or cooking for your kids, this is well worth the \$30 to make consuming vegetables so much more fun! Seriously. It's definitely an investment in your health.
2. Next, in a large saucepan or pot (2-quart size), add the extra virgin olive oil and heat over medium heat (approx. 300 degrees). Add in the diced onions, carrots, celery, and garlic until tender. Then add in bison, breaking up into small chunks.
3. Once the bison has browned, add in the chopped tomatoes and Himalayan salt. Bring mixture to a boil. Immediately reduce heat to low. Next add in all the fresh herbs and the red pepper flakes. Bring to a simmer. Add in tomato paste. Simmer until sauce thickens, about 40 minutes.
4. Meanwhile, heat a large nonstick skillet over medium-high heat. Add the zucchini noodles and cook for 5 minutes or until cooked to your preference (3-5 minutes for al dente, 5-7 minutes for a softer noodle.) When done, drain in a colander and pat dry.
5. Divide the noodles onto plates, top with the bison marinara sauce and garnish with Parmesan cheese or vegan Parmesan "cheese" (recipe below).



VEGAN CASHEW PARMESAN “CHEESE”

Yields: about $\frac{3}{4}$ cup

Ingredients

1 cup raw cashews
 $\frac{1}{4}$ cup nutritional yeast
1 tsp. [Himalayan salt](#)
 $\frac{1}{4}$ tsp. garlic powder

Directions

1. In a small food processor, combine all ingredients and process until you get a crumbly texture. You can store this in a air-sealed container in the fridge for up to a month.



DOUBLE CHOCOLATE HAZELNUT COOKIES

Yields: 15 cookies, **Prep Time:** 10 minutes, **Cook Time:** 10 minutes, **Difficulty:** Easy

Ingredients

$\frac{3}{4}$ cup [Onnit Chocolate Hazelnut Fat Butter](#)

$\frac{1}{4}$ cup creamy cashew butter

1 tsp. coconut oil, melted

3 tbsp. Erythritol or sweetener of choice*

1 egg, whisked

1 tsp. baking soda

1 tsp. vanilla extract

$\frac{1}{4}$ tsp. [Himalayan salt](#)

$\frac{1}{4}$ cup Lily's Stevia-sweetened mini chocolate chips

$\frac{1}{4}$ cup crushed roasted hazelnuts

**We used Erythritol-based sugar substitute, Swerve (granular).*

Directions

1. Preheat oven to 350 degrees. Line a baking sheet with parchment paper or lightly grease with coconut oil to prevent sticking.
2. In a large bowl, mix Onnit Chocolate Hazelnut Fat Butter, cashew butter, coconut oil, vanilla extract and egg until combined.
3. Add sweetener of choice, baking soda, salt and chocolate chips. This part is easier to use your [clean] hands. Mix until everything is nice and combined.
4. You can either roll two tablespoons of the batter into a small ball or use a mini cookie scoop to save your hands. Place each ball onto the baking sheet, repeat for approximately 15 cookies. Using a fork, press each cookie down slightly.
5. Bake for 8 to 10 minutes. Let cool for 5 to 10 minutes prior to serving.



NUTTY CHIA PUDDING

Yields: 1 serving, **Prep Time:** 5 minutes, **Soak Time:** 3 hours to overnight, **Difficulty:** Easy

Ingredients

3 tbsp. chia seeds
1 cup unsweetened vanilla almond milk
1 tbsp. [Onnit Vanilla Emulsified MCT Oil](#)
2 tbsp. cacao nibs
¼ cup dry roasted cashews (crushed)
1-2 tbsp. Keto Love Cinnamon Vanilla Cashew Butter

Directions

1. Add the chia seeds, almond milk, salt, and Onnit Vanilla Emulsified MCT Oil to a mason jar or container with a tight lid. Feel free to use an alternative non-dairy, unsweetened milk.
2. Mix thoroughly with a large spoon to prevent chunks from forming. There will seem like a good amount of excess liquid, but chia seeds have a gelatinous property that allows it to absorb liquid and expand up to 10 times its original size.
3. Add lid and store in the fridge for at least three hours or overnight. Shake the mason jar or stir with a spoon to ensure no big clumps form every hour or so, until serving.
4. To serve, add ½ of the pudding to a serving glass. Sprinkle 1 tbsp. of cacao nibs on top to layer, then add the remaining pudding. Add remaining cacao nibs, crushed cashews and large dollop of Keto Love Cinnamon Vanilla Cashew Butter. Serve cold.



CHEESY CAULIFLOWER BREADSTICKS

Yields: 1 sheet pan, 15 sticks, **Prep Time:** 10 minutes, **Cook Time:** 30 minutes, **Difficulty:** Medium

Ingredients

1 head cauliflower, chopped into florets
½ cup shredded mozzarella
½ cup shredded Monterey Jack cheese
2 pastured eggs*
2 tsp. dried oregano
2 tsp. minced garlic
½ tsp. [Himalayan salt](#)
Black pepper, to taste

Topping:

2 tbsp. grass-fed butter, softened
1 tsp. garlic, minced
½ cup shredded Parmesan
½ cup shredded Monterey Jack cheese
½ cup mozzarella cheese

Optional:

Finely chopped parsley, for garnish
No-sugar-added marinara, for dipping
Primal Kitchen Ranch Dressing

Directions

1. Preheat oven to 425 degrees F. Rinse cauliflower florets. Add to a food processor, and pulse until it reaches a couscous consistency.
2. Place the cauliflower particles in a microwave-safe bowl, and cover with a paper towel or lid. Microwave for 7 to 10 minutes.
3. Add the eggs, oregano, garlic, mozzarella, Monterey Jack, salt, pepper, and cauliflower. Mix until combined.
4. On a parchment-lined sheet, spread the cauliflower mixture with clean hands. Flatten carefully to reach the edges, forming a large rectangle.
5. Bake for 20 minutes. While it's cooking, mix together the the topping ingredients.
6. Remove from oven, spread toppings. Bake for another 10 minutes, until bubbly and a golden brown. Serve warm with a no-sugar-added marinara (look at ingredient label) or Primal Kitchen avocado-oil based Ranch Dressing. Sprinkle chopped parsley on top for garnish.



BUFFALO CHICKEN STUFFED PORTOBELLO MUSHROOMS

Yields: 10-12 servings, **Prep Time:** 10 minutes, **Cook Time:** 20 minutes, **Difficulty:** Easy

Ingredients

8 large portobello mushroom caps
½ cup crumbled blue cheese
¼ cup pork panko*
Shredded buffalo chicken, recipe below
Scallion, garnish

**We used Bacon's Heir Pork Panko, but you can easily make by buying your favorite pork rinds and crushing them into breadcrumb-like consistency.*

Directions

1. Preheat oven to 425 degrees Fahrenheit. Line a baking sheet with parchment paper.
2. Remove stems from mushrooms, and clean the outside of the caps using a damp paper towel. Never run mushrooms under water. They are porous and will absorb the moisture. You can save the stems for re-purposing later; for example, finely dice up the stems and integrate them with the shredded chicken to cook all together, or save it to use in scrambled eggs or as a salad topper.
3. Carefully scoop out a little mushroom "meat" in the center to create more room for the chicken.
4. Add about ⅓ cup shredded chicken into each portobello cap. Sprinkle 1 tbsp. crumbled blue cheese and ½ tbsp. pork panko on top of each stuffed portobello.
5. Bake for 20 minutes, or until the tops are golden brown. Remove from oven, and let cool. You can serve whole or slice into bite-size pieces for an easy grab-and-go bite. Garnish with diced scallion if desired.



SLOW-COOKED SHREDDED BUFFALO CHICKEN

Yields: 10-12 servings, **Prep Time:** 15 minutes, **Cook Time:** 3-4 hours on high, 5-6 hours on low, **Difficulty:** Easy

Ingredients

5 chicken breasts, USDA organic

13-oz bottle buffalo sauce*

1/3 cup chicken broth

1/2 sweet onion, diced

**We used Wing-Time medium buffalo wing sauce*

Directions

1. Add all ingredients to CrockPot or slow cooker. Cook on low for 3 to 4 hours or on high for 5-6 hours.
2. Using two forks, gently shred the chicken, and mix in with all the delicious sauce.



MINT CHIP PROTEIN SHAKE

Yields: 1 serving, **Prep Time:** 5 minutes, **Difficulty:** Easy

Ingredients

2 scoops [Onnit Powerfood Vitality](#)
½ scoop [Onnit Vanilla Grass-fed Whey Isolate](#)
2 tbsp. [Onnit Walnut Almond Cashew \(WAC\) Butter](#)
¼ avocado, fresh
1 tbsp. [Onnit MCT oil](#)
½ tsp. chia seeds
⅛ tsp. ground cinnamon
⅛ tsp. [Himalayan salt](#)
1 cup organic spinach, packed
1-2 tsp. organic peppermint extract
2 cups ice
10 fl. oz. unsweetened vanilla almond milk
1 tbsp. cacao nibs

Directions

1. Add all ingredients except for the cacao nibs to a high-powered blender. Pulse until smooth, then add the cacao nibs. Pulse for 3 seconds and serve.



VANILLA GOLD PROTEIN SHAKE

Yields: 1 serving, **Prep Time:** 5 minutes, **Difficulty:** Easy

Ingredients

1 scoop [Onnit Grass-Fed Whey Isolate](#), Vanilla
1 scoop vanilla exogenous ketones*
1 tbsp. [Onnit MCT Oil](#)
¼ cup coconut cream
1 tbsp. [Onnit WAC butter](#)
⅛ tsp. [Himalayan salt](#)
3 dashes of ground cinnamon
⅓ tsp turmeric
12 fl. oz. unsweetened almond milk
2 cups ice

**We like "Keto Meal" by Kegenix.*

Directions

1. Add all ingredients to a high-powered blender. Pulse until smooth.



COCOLIME REHYDRATE SLUSH

Yields: 1 serving, **Prep Time:** 5 minutes, **Difficulty:** Easy

Ingredients

10 fl. oz. water
1 tbsp. [Onnit coconut emulsified MCT](#)
½ lemon, juiced
⅛ tsp [Himalayan salt](#)
1 scoop [Onnit Mineral Electrolytes](#), lime flavor
1 cup ice

Directions

1. Add all ingredients to a high-powered blender. Pulse until slushy consistency is formed.



PEACH RECHARGE

Nootropic + caffeine + antioxidants = perfect formula to start your day

Yields: 1 serving, **Prep Time:** 5 minutes, **Difficulty:** Easy

Ingredients

10 fl. oz. cold Yerba Mate

1 Onnit [Alpha Brain Instant Peach](#) pack

Ice

Directions

1. Mix the Alpha Brain packet with the Yerba Mate. Then pour over ice and serve!



SALTED ALMOND CHOCOLATE ESPRESSO BITES

Yields: 10 bites, **Prep Time:** 15 minutes, **Difficulty:** Easy

Ingredients

½ cup almond flour
2 tbsp. cacao powder
1 tbsp. granular Stevia or sweetener of choice
1 tsp. instant espresso
2 tbsp. cold brew (or chilled espresso)
¼ cup [Onnit Almond Fat Butter](#)
1 tsp. SweetLeaf Stevia Drops, vanilla creme
¼ cup crushed slivered almonds, for coating
Coconut oil, for rolling

Directions

1. Add all dry ingredients except for the slivered almonds in a medium mixing bowl. Stir thoroughly to combine. It will be thick.
2. Add crushed almonds to a small bowl.
3. Coat your hands in coconut oil to prevent sticking and take a quarter-size amount of the batter and roll into a ball. A small cookie scoop makes this process much easier. Roll each ball into the crushed almond slivers to coat. .
4. Place on cookie sheet, plate, or directly into airtight container. Repeat with remaining batter. Freeze for 10 to 15 minutes before serving. Can be stored in the refrigerator for up to 5 days in container.

FAQ

What are the differences between the ketogenic diet and other lower-carb plans such as the Paleo Diet, the Carnivore Diet, etc.?

Because cutting carbs yields such quick and striking results, many different experts have offered their own take on the best way to do it. The Atkins Diet, Paleo Diet, South Beach Diet, Whole 30, and carnivore diet are all lower- to extremely-low carb ways of eating, but there are many stark differences between them. Here's a summary of each one to show you how they differ:

Atkins Diet- Eat as much fat and protein as you like but limit carbs to under 25 grams per day to kick-start weight loss. As you close in on your goal weight, gradually add carbs back to your diet.

Paleo Diet- Eat only what was available to our hunter-gatherer ancestors, meaning no grains, legumes, dairy, sugar, or potatoes. Protein ends up being 20–35% of calories, but carbs can still be as high as 35–45%, coming by way of fruits and veggies.

South Beach Diet- Similar to Atkins, you start out very low-carb and gradually add some carbs back in, but you're allowed certain concessions, such as dessert, every day.

Whole 30- No grains, beans, soy, dairy, booze, processed additives, or sugar or sweeteners of any kind for 30 days. Essentially, an elimination diet.

Carnivore diet (aka zero-carb diet)- Only eat animal foods, and mainly red meat. Because you aren't eating any plant foods at all, your carb intake is virtually zero. However, because the protein intake will be high, you may not achieve actual ketosis (your body will make any carbs it needs by way of gluconeogenesis). There are no prescriptions as far as calories, macros, or serving sizes. Just eat meat to satiety. See our guide to the carnivore diet [HERE](#).

How do I eat keto at a party?

“The cheese and veggie platters are usually a safe zone,” says Dom D’Agostino. “Cheese platters usually offer, of course, cheese, but sometimes even a variety of nuts and meats. When heading to the veggie platter, stick to the low-carb vegetables like broccoli, cauliflower, cucumber, and celery. Most veggie dip has a mayo and/or sour cream base, so this is usually a very keto option.” Watch out for dressings and condiments that might contain sugar or flour, such as ketchup and barbecue sauce. Obviously, foods like breads, crackers, and cake should be avoided.

On the drink front, avoid regular beer and sweet wines like rosé. “Dry Farm Wines offers fantastic low-sugar wine options that can be enjoyed on a ketogenic diet,” says D’Agostino. When taken with sugar-free mixers, most unsweetened/unflavored liquors are OK. “Generally speaking,” says D’Agostino, “you want to stop before or at the first sign of a buzz.” Unfortunately, that’s a sign that alcohol’s damaging effects are beginning to set in.

Are there any keto snacks I can eat on the road?

D’Agostino recommends the following foods.

- Canned fish, such as sardines, mackerel, and wild-caught salmon (pouches are OK too if you don’t travel with a can opener)
- Canned chicken (it’s best to add mayo or MCT or olive oil-based dressings to pump up the fats)
- Boiled eggs
- Avocados
- Nuts (e.g. macadamia, walnuts, pecans, almonds)
- Individually packaged nut butters
- Meat bars, such as Onnit’s Elk Bar

D’Agostino has also tested a number of snack products that you can find on his site, ketonutrition.org.

How can I eat keto at restaurants?

Order salad as an appetizer and a meat or fish dish for your main course. You can ask the server to leave out carby add-ons like croutons and pasta side dishes. “Ask them to sub steamed vegetables, nuts, cheese, or avocado in their place,” says D’Agostino. It’s best to avoid dressings altogether; ask for olive oil and a slice of lemon.

What supplements can I take on keto?

MCT oil is a great source of energy and helps support ketone production, which aids fat loss. Hemp protein can be a valuable resource for vegan keto dieters who have trouble getting enough protein from non-animal sources. Onnit's Powerfood Active and Powerfood Vitality products both offer hemp protein and are vegan.

Exogenous ketones can help you transition into ketosis faster and aid with symptoms of the keto flu. Onnit's Total Keto Daily formula is designed for this. Finally, amino acids can help support workout recovery in place of whey protein, which raises insulin levels quickly.