# **FOREWORD**

#### MY ITALIAN RELATIVES STILL SCOFF AT ME WHEN I SKIP THE BREAD

AT DINNER. They say, "But it's the weekend! Nobody diets on the weekend!"

To be clear, the ketogenic diet doesn't break for weekends. It doesn't flip its hair and sneak candy from the bowl while the cauliflower isn't looking. Staying in ketosis is a full-time job, but after you break through your carb withdrawals in week one, you're going to be so pumped with energy that you'll be slaying doughnuts and mashed potatoes with the sword of shame.

Over the past decade, I've talked to people from all walks of life who are on the ketogenic diet. While the diet has been used to treat epilepsy informally since at least 500 BC, it's been recommended by the medical community since the 1920s. But most commonly, people reach out to me for a host of other reasons, not just because they have epilepsy and need to change their diet. I've spoken with patients who are using the ketogenic diet as recommended by the nutritionist at their cancer centers, and I've even met people who have used the diet to combat anxiety and depression. In addition to weight loss, going keto helped me fight chronic vertigo, which prevented me from driving for three years.

Glucose imbalance, the result of eating a diet heavy in breads, sugars, starches, and pasta, is said to be harmful to the brain, so it's no wonder when glucose is replaced with ketones. A ketogenic diet can help to restore brain function for people who suffer with dementia and Alzheimer's disease (also sometimes referred to as type 3 diabetes<sup>2</sup>). A brain that isn't hopped up on sugar is a happy brain!

This book you're about to read is an excellent guide to following a ketogenic diet, no matter how much weight you want to lose, or how much of your life you want to regain.

<sup>1</sup> https://www.ncbi.nlm.nih.gov/pubmed/19049574

<sup>2</sup> https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2769828/

Whenever you approach a diet, you should go into it thinking that you're adapting to a healthier lifestyle. However, in the ketogenic community, you'll often find forums and Facebook groups riddled with ketogenic junkfood (Take your McDonald's burger, throw away the bun, and flip it inside out! Yeah! Ketofriendly!). What I love about this book is that it brings healthy ingredients to the forefront, without being snobby. This diet is heavy on fat, so why not choose healthy ones that provide additional health benefits, like coconut oil, ghee, and avocado? Hang those highly processed oils, like vegetable oils and soybean oils, out to dry.

In addition, you'll find specific examples throughout this book; for example, berries are a-ok, but you shouldn't eat bananas because they contain more than your daily intake of carbohydrates. And chapter 2, on setting up your kitchen, includes a crucial set of equipment for making delicious ketogenic meals (a castiron pan, especially!).

The section on keto-friendly alternatives is particularly useful, because you may not know that a cup of milk has 13 net carbs, while unsweetened almond milk contains zero carbs (and is just as tasty!). I've known numerous people who assumed they can eat rice on this diet (it's like Paleo, right?) and I need to explain that rice has 44 net carbs per (cooked) cup. When you tell them you're shooting for less than 20 net carbs per day, it just about blows their mind.

And probably my favorite part of the book? Every recipe is 6 carbs! That's some no-brainer type of keto stuff I can get behind. Enjoy this book and your path to ketogenic wellness!

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# INTRODUCTION

WITH THIS BOOK AS YOUR GUIDE, you can easily make the lifestyle change millions of other people have successfully made. You can feel and look great by eating food that's healthy, natural, and delicious. It will benefit your mental and physical health and provide constant energy throughout your day.

To be successful, you'll need to understand the very basics of your body and dieting.

Low-fat, low-calorie, gluten-free, Atkins, Weight Watchers, South Beach . . . the list of diets goes on. Most require you to starve yourself, eat bland, uninspiring food, strictly count calories, or go through various induction phases. The major problem with these diets is that they aren't always nutritionally sound and they're certainly not satisfying. That's simply not safe or sustainable. They are not a lifestyle.

What the more successful diets have in common is the reduction of foods rich in carbohydrates. Studies show that people who eat low-carb diets and don't reduce calories lose more weight than people who eat low-fat diets and also reduce calories. In addition, low-carb dieters generally show more improvement for important health indicators like triglyceride, blood sugar, and insulin levels, and more.

This all comes down to how your body works. When you eat carbs, your body breaks them down into glucose, a simple sugar, which quickly and significantly raises your blood sugar levels. Then you produce insulin to reduce this spike in blood sugar. After years and years of this cycle, your body will need to produce more insulin at once to achieve the same results. You can quickly become insulin resistant, and very commonly this resistance turns into prediabetes, metabolic syndrome, and, eventually, type 2 diabetes.

According to the American Diabetes Association's (ADA's) 2012 data, more than 1 in 3 adults in the United States have prediabetes and nearly 1 in 10 have

type 2 diabetes. Data from the Centers for Disease Control and Prevention (CDC) shows the number of obese adults in the United States has spiked since the 1980s from 15 percent to 35 percent of all adults ages 20 to 74. This increase can only be attributed to a change in diet on a national scale.

The US Department of Agriculture (USDA) first released their Dietary Guidelines in 1980, and they recommended that fats and oils be heavily reduced along with sweets while carbohydrates should account for most of your daily food consumption. Soon after they released the Food Pyramid Guide, which placed carbs into the largest section of the pyramid and recommended that you eat 6 to 11 servings a day. They also recommended eating 2 to 4 servings of fruit (which is full of natural sugars) a day. These guidelines, even decades later, have been used as a framework for the US consumer education messages by the surgeon general, CDC, and many other government organizations since then.

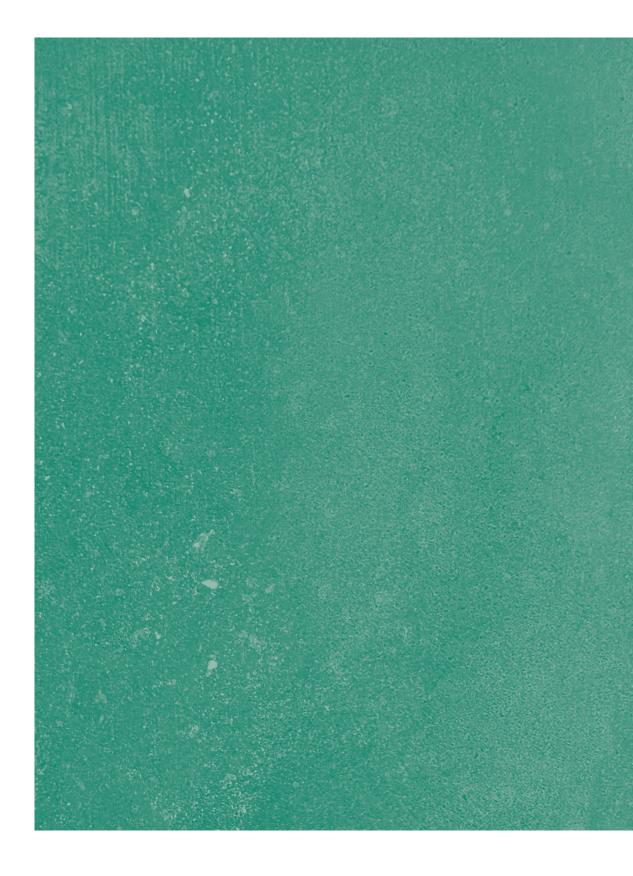
Today, the ADA promotes eating "healthy carbohydrates" for diabetics instead of greatly reducing carbs from the diet. If carbs are ultimately sugar, and sugar ultimately causes many of these diseases, why are you told to prioritize carbs in your diet? There's no such thing as an essential carbohydrate. Your body can create the glucose it needs through a process called gluconeogenesis, where the liver converts glycerol (derived from fats) into glucose.

Alternatively, you've no doubt been taught that saturated and monounsaturated fats cause heart disease, cholesterol problems, and many other issues. In the last decade, dozens of studies and multiple meta-studies (studies that analyze other studies' results) with over 900,000 subjects from almost 100 different data sets have shown similar conclusions: Eating saturated and monounsaturated fats has no effects on heart disease risks, short- or long-term.

Most fats are good and are essential to our health—that's why there are essential fatty acids and essential amino acids (protein). Fats are the most efficient form of energy and each gram contains about 9 calories. That's more than double the amount in carbohydrates and protein (both have 4 calories per gram).

When you eat lots of fat and protein and greatly reduce carbs, your body adapts and converts the fat and protein, as well as the fat you have stored, into ketone bodies, or ketones, for energy. This metabolic process is called ketosis. That's where the *ketogenic* in ketogenic diet originates from.

This book will provide you with what you need to succeed with the ketogenic diet—simple cooking, weight loss, and long-term success.



# THE KETOGENIC LIFESTLIE

PART ONE



### **CHAPTER 1**

# LOW-CARB, HIGH-FAT

#### MAINTAINING A LOW-CARB, HIGH-FAT DIET

is beneficial for weight loss. Most importantly, according to an increasing number of studies, it helps reduce risk factors for diabetes, heart diseases, stroke, Alzheimer's, epilepsy, and more. The keto diet promotes fresh whole foods like meat, fish, veggies, and healthy fats and oils, and greatly reduces processed, chemically treated foods. It's a diet that you can sustain long-term and enjoy. What's not to enjoy about a diet that encourages eating bacon and eggs for breakfast!

Carbs (sugar) cause blood glucose spikes, which result in crashes soon after, followed by cravings for more carbs. This cycle causes constant spikes in insulin and eventually may lead to prediabetes and type 2 diabetes.

Studies consistently show that a keto diet helps people lose more weight, improve energy levels throughout the day, and stay satiated longer. The increased satiety and improved energy levels are attributed to most of the calories coming from fat, which is very slow to digest and calorically dense. As a result, keto dieters commonly consume fewer calories because they're satiated longer and don't feel the need to eat as much or as often.

# Why Go Keto?

When you eat a ketogenic diet, your body becomes efficient at burning fat for fuel. This is great for a multitude of reasons, not the least of which is that fat contains more than double the calories of most carbs, so you need to eat far less food by weight every day. Your body more readily burns the fat it has stored (the fat you're trying to get rid of), resulting in more weight loss. Using fat for fuel provides consistent energy levels, and it does not spike your blood glucose, so you don't

experience the highs and lows when eating large amounts of carbs. Consistent energy levels throughout your day means you can get more done and feel less tired doing so.

In addition to those benefits, eating a keto diet in the long term has been proven to:

- Result in more weight loss (specifically body fat)
- Reduce blood sugar and insulin resistance (commonly reversing prediabetes and type 2 diabetes)
- Reduce triglyceride levels
- Reduce blood pressure
- Improve levels of HDL (good) and LDL (bad) cholesterol
- Improve brain function

## **Getting into Ketosis**

When eating a high-carb diet, your body is in a metabolic state of glycolysis, which simply means that most of the energy your body uses comes from blood glucose. In this state, after each meal, your blood glucose is spiked causing higher levels of insulin, which promotes storage of body fat, and blocking the release of fat from your adipose (fat storage) tissues.

In contrast, a low-carb, high-fat diet puts your body into a metabolic state called ketosis. Your body breaks down fat into ketone bodies (ketones) for fuel as

## SUPPORT FOR YOUR NEW LIFESTYLE

When starting the keto diet, it's important to let your closest friends and family members know you're serious about it and which foods you're trying to avoid. This will help during gatherings or outings. You may face some resistance in the beginning, and that's absolutely normal. The high-carb, low-fat diet has been the standard in most people's lives, and keto is a complete turnaround. Just focus on yourself and your progress. Soon enough, your high energy, weight loss, and overall positive outlook will make even naysayers curious.

A great place for initial support is reddit.com's keto subreddit: www.reddit.com/r/keto. You'll find hundreds of thousands of other keto-ers from around the world posting their experiences and progress, and supporting each other throughout their journeys.

its primary source of energy. In ketosis, your body readily burns fat for energy, and fat reserves are constantly released and consumed. It's a normal state—whenever you're low on carbs for a few days, your body will do this naturally.

through gluconeogenesis.

Most cells in your body use ketones and glucose simply does not exist for fuel. For cells that can only take glucose, like parts of the brain, the glycerol derived from dietary fats is made into glucose by the liver

Fats (fatty acids) and protein (amino acids) are essential for survival. There is no such thing as an essential carbohydrate. It simply does not exist.

The main goal of the keto diet is to keep you in nutritional ketosis all the time. For those just starting the keto diet, to be fully keto-adapted usually takes anywhere from four to eight weeks.

Once you become keto-adapted, glycogen (the glucose stored in your muscles and liver) decreases, you carry less water weight, your muscle endurance increases, and your overall energy levels are higher than before. Also, if you kick yourself out of ketosis by eating too many carbs, you return to ketosis much sooner than when you were not keto-adapted. Additionally, once you are keto-adapted, you can generally eat up to 50 grams of carbs per day and still maintain ketosis.

#### WHAT TO DO IF YOU HAVE DIABETES

If you have diabetes, a low-carb diet can still work for you. For type 2 diabetes, it can begin to reverse the condition; for type 1 diabetics, it can greatly improve blood sugar control.

Always consult with your doctor before beginning a low-carb diet, especially with type 1 diabetes, because if you take medications, you may have to immediately decrease your doses. Your doctor may recommend doing a trial under their supervision so they can monitor your blood glucose levels and insulin doses. Additionally, for type 1 diabetes, you should eat over 50 grams of carbohydrates per day to prevent ketoacidosis.

Ketoacidosis is a toxic metabolic state that occurs when the body fails to regulate ketone production. The result is a severe accumulation of keto acids, which causes the pH of the blood to decrease substantially, making the blood more acidic. The most common causes for ketoacidosis are type 1 diabetes, prolonged alcoholism, and extreme starvation, which can result in diabetic ketoacidosis

The chart below provides the carbohydrate contents of commonly eaten foods for reference (fats, fish, poultry, and meats don't contain carbs):

FOOD	SERVING SIZE	CARBS (GRAMS)	CALORIES
РОТАТО	1 large, baked, plain	56	283
RICE	1 cup, white or brown	50	223
OATMEAL	1 cup, dry	49	339
PINTO BEANS (COOKED)	1 cup	45	245
BAGEL	1 whole	44	245
YOGURT	1 cup, fruit- flavored, low-fat	42	225
CORN (COOKED)	1 cup	41	177
SPAGHETTI	1 cup	40	221
PIZZA	1 slice, cheese	39	290
APPLE JUICE	1 cup	28	113
SWEET POTATO	1 large	28	118
ORANGE JUICE	1 cup	26	112
ENGLISH MUFFIN	1 whole	25	130
WAFFLE	1 (7-inch diameter)	25	218
BANANA	1 medium	24	105

FOOD	SERVING SIZE	CARBS (GRAMS)	CALORIES
APPLE	1 medium	21	81
CEREAL, READY TO EAT	1 cup	18	103
PANCAKE	1 (5-inch diameter)	15	90
MILK	1 cup	12	103
BREAD	1 slice, white	12	66
GREEN PEAS	½ cup	12	63
STRAWBERRIES	1 cup	11	45
CUCUMBER	1 (8-inch length)	9	47
YELLOW ONION	1 medium	8	44
BROCCOLI	1 stalk	6	51
ZUCCHINI	1 medium	4	33
CARROT	1 medium	4	25
томато	1 medium	3	22
WHITE MUSHROOMS	1 cup	2	15
EGG	1 large	0.6	78
SPINACH	1 cup	0.4	7

(DKA), alcoholic ketoacidosis, and starvation ketoacidosis, respectively. Ketoacidosis rarely occurs for reasons other than type 1 diabetics.

# **Living in Ratios**

Just like the USDA's Food Pyramid, the keto diet is built on ratios. It's important to get the right balance of macronutrients so your body has the energy it needs and you're not missing any essential fat or protein in your diet.

## **TESTING FOR KETOSIS**

When you first start the keto diet, it's important to know if and when you're in ketosis when you first start eating low-carb. Not only is it a great confidence booster, but testing also lets you know that you're doing things right, or wrong, and whether you need to make any changes.

An easy test is to sniff for "keto-breath." After a few days, you might notice a taste that's somewhat fruity and a bit sour or even metallic. The reason for this? When your body is in ketosis, it creates the ketone bodies: acetone, acetoacetate, and beta-hydroxybutyrate. Acetone in particular is excreted through your urine and breath, which causes "keto-breath." This change in the smell of your breath and the taste in your mouth usually diminishes after a few weeks.

A more accurate way to tell is by using ketone urine test strips. They're fairly inexpensive and can instantly check the ketone levels in your urine. You can find them in packs of 100 for under \$10 online or at most pharmacies. Try to take the test a few hours *after* you wake up in the morning, because being dehydrated after a night's sleep can cause a false positive.

The most accurate test involves a blood ketone meter. This type of test is a bit pricier at around \$40 for the meter and up to \$5 per test strip. The upside is it's much more accurate because it tests your blood directly. For nutritional ketosis, your reading should be between 0.5 and 5.0 millimeters.

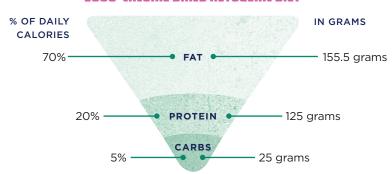
Long term, it's not necessary to continuously check on your ketone levels. Within a few weeks, you'll know if you're eating right, and it becomes very easy to stay in ketosis.

Macronutrients are what foods are made of. They are fat, protein and carbohydrates. Each type of macronutrient provides a certain amount of energy (calories) per gram consumed.

- Fat provides about 9 calories per gram
- Protein provides about 4 calories per gram
- Carbohydrates provide about 4 calories per gram

On the keto diet, 65 to 75 percent of the calories you consume should come from fat. About 20 to 25 percent should come from protein, and the remaining 5 percent or so from carbohydrates.

Here are the same numbers broken down into an average 2000-calorie daily diet by grams and percentages:



**2000-CALORIE DAILY KETOGENIC DIET** 

Keep in mind that 2000 calories is just an example—the number of calories you consume daily should be tailored to your body, activity levels, and goals.

The number of calories you should eat depends on a few factors, including:

- Current lean body weight (total body weight minus body fat)
- Daily activity levels (do you work in an office, wait tables, compete as a professional athlete?)
- Workout regimen? If so:
  - The types of workouts (weight lifting, cardio, or both)
  - Hours per week of each type

- Goal:
  - Lose weight
  - Maintain weight
  - Gain muscle

There are many ketogenic-based macro calculators available online, such as tasteaholics.com/keto-calculator and ketogains.com/ketogains-calculator. You can also find plenty of others through a quick Google search for "keto calculator." You'll be able to easily and quickly plug in your numbers and get an immediate estimation of your body's caloric needs.

One of the great things about the keto diet is that it's not necessary to track each and every number to hit your goals. Yet if you want to track, it's a great way to speed up your progress, and tracking will give you a visual reminder to stay on course every day.

# **Necessary Nutrients**

It's crucial to drink plenty of water when beginning the keto diet. You may even notice that you're visiting the bathroom more often, and that's normal!

This happens because you're cutting out a lot of processed foods and have started eating more whole, natural foods instead. Processed foods have a lot of added sodium, and the sudden change in diet causes a sudden drop in sodium intake.

Additionally, the reduction in carbs reduces insulin levels, which in turn tells your kidneys to release excess stored sodium. Between the reduction in sodium intake and flushing of excess stored sodium, the body begins to excrete much more water than usual, and you end up low on sodium and other electrolytes.

When this happens, you may experience symptoms such as fatigue, headaches, coughing, sniffles, irritability, and/or nausea.

This state is generally known as the "keto flu." It's very important to know that this is not the actual influenza virus. It's called the keto flu only due to the similarity in symptoms, but it's neither contagious nor a real virus.

Many who experience these symptoms believe the keto diet made them sick and immediately go back to eating carbs. But the keto flu phase actually means your body is withdrawing from sugar, high carbs, and processed foods, and is readjusting so it can use fat as its fuel. The keto flu usually lasts just a few days while the body readjusts. You can abate its symptoms by adding more sodium and electrolytes to your diet.

# **Getting Ready to Go Keto**

Now that you understand the benefits and science behind the ketogenic diet, you're ready to get started. In the following chapters, you'll get all the information you need to succeed with your keto diet, including what to buy and what to avoid, meal plans and full recipes, and how to exercise to maximize your health.

#### THE "KETO FLU"

The keto flu is avoidable and its duration can be reduced simply by adding more sodium to your diet. Here are some of the easiest ways to do it:

- Add more salt to your meals.
- Drink soup broths like lamb or chicken.
- Eat saltier foods like pickled vegetables and bacon.

To replace other electrolytes, try to eat more of the foods listed below:

ELECTROLYTE	FOODS CONTAINING ELECTROLYTE
POTASSIUM	Avocados, nuts, dark leafy greens such as spinach and kale, salmon, plain yogurt, mushrooms
MAGNESIUM	Nuts, dark chocolate, artichokes, spinach, fish
CALCIUM	Cheeses, leafy greens, broccoli, seafood, almonds
PHOSPHORUS	Meats, cheeses, nuts, seeds, dark chocolate
CHLORIDE	Most vegetables, olives, salt, seaweed

Remember that if you don't feel better right away, it will pass within a couple of days, and you'll emerge a fat-burning machine!