

Health & Wellness
eBOOK

The Ultimate Guide on How to
Track the Keto Diet
to Achieve Your Health Goals

This guide is intended for people who want to learn how to properly track the low-carb ketogenic lifestyle. The guide will show you which metrics to track, how to track them, and how to personalize low-carb keto with actionable data.

HOW TO JUMPSTART YOUR KETO DIET

This guide is designed to help you successfully navigate starting and maintaining a ketogenic diet and low-carb lifestyle. In particular, we introduce tools that can help you track your progress, fine tune your approach based on your unique health goals, and find exactly what works for your body. No two people will have the same experience, outcomes or results; however, finding the right tools and techniques to monitor how your body adjusts can make all the difference in meeting goals.

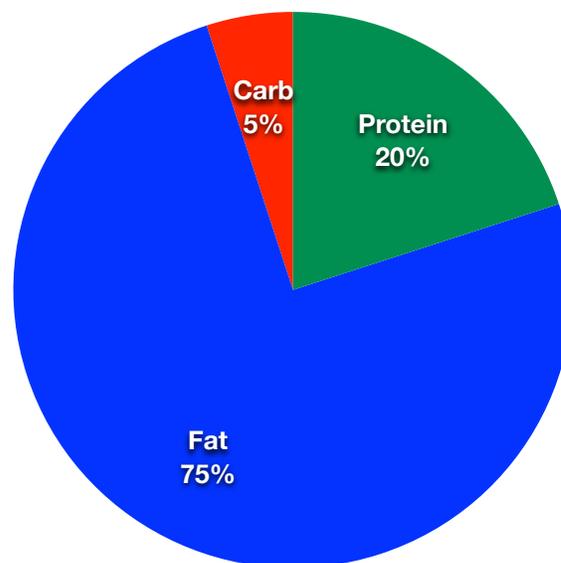
Step 1: Master Your Macronutrients (Protein, Fat & Carbs)

The hardest part about going keto, especially for beginners, is learning how to adjust your food intake to meet the requirements of a ketogenic diet. The ketogenic diet is a low-carb diet with 25 grams of carbs per day as a common starting point. The rest of your daily caloric intake should come from protein and fat, for which the precise amounts will depend on your overall diet and health goals (e.g. muscle building vs. fat loss vs. performance endurance vs. disease management, etc.).

If you've never counted calories or read food labels before, learning how to correctly adjust your diet can be tricky at first. Start by calculating your target protein, fat, carb and

calorie goals by using a macronutrient calculator designed for ketogenic diets. We've included a few good calculators in the appendix.

Take a real success story, Joe, for example: he's a 45-year-old male who wanted to lose weight and improve overall health. When he decided on trying keto, he went off the Standard American Diet and set a goal of 80% fat, 15% protein and 5% carbs. It definitely took a few weeks of trial and error to learn which foods he could to eat in order to reach his goals, but it got easier with practice.



Ideal macronutrient ratios on a Keto diet plan.

Over the course of about six months, Joe's weight dropped from 197 to 184 pounds, and his body fat dropped from 24% to 20%. Overall, he was happy with his initial results.

Once you get comfortable with the general low-carb diet, you can further optimize your results by measuring your macronutrients in grams.

This is a much more accurate method and allows you to refine your caloric intake based on your age, sex, body-type and activity level. You can also tailor your caloric intake based on your own unique metabolic characteristics and your specific health objectives on keto, whether that's for overall weight loss, cancer care, disease management, diabetes control, muscle growth or anything else.

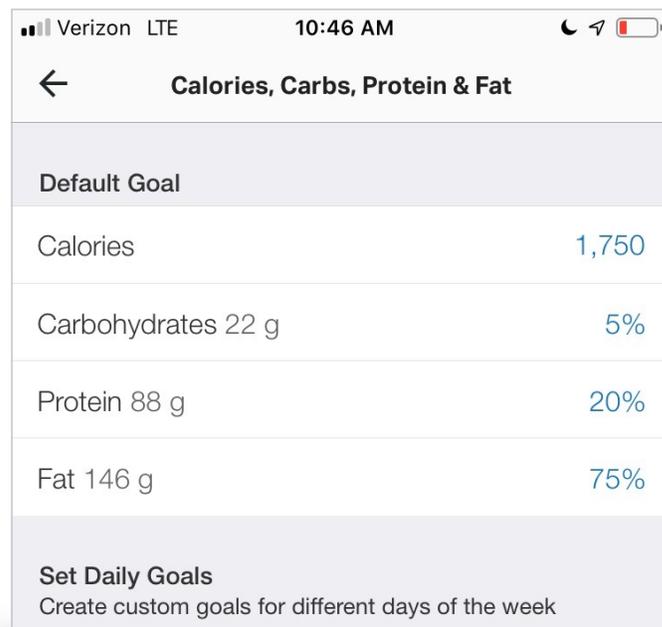
EXAMPLE // After losing a good amount of weight during his first six-months on keto, Joe wanted to shift focus from losing weight to building muscle. He used the Ketogains calculator and shifted to a daily goal of 1,600 calories consisting of 124 grams of fat, 100 grams of protein and 20 grams of carbs. He also shifted his exercise routine from mostly cardio to strength training with weights.

Once you've got your macros calculated, we recommend using an app to make tracking them easier, such as MyFitnessPal (MFP), Cronometer or MyMacros+. They help you more easily track your daily food intake and ensure you are adhering to your daily goals for calories and macronutrients.

Apps such as MyFitnessPal, Cronometer and MyMacros+ help you more easily track macronutrients from daily food intake to ensure you're staying on track with daily goals and caloric intake.

As a primer to get you started, here are the recommended steps to use MyFitnessPal to fine-tune your macronutrient consumption:

1. **Download MyFitnessPal** on your smartphone or computer.
2. **Change the app settings** such that your daily macronutrient goals are appropriate for a ketogenic diet based on your goals. *The image below shows how to change your goal settings on the iOS version of MyFitnessPal:*



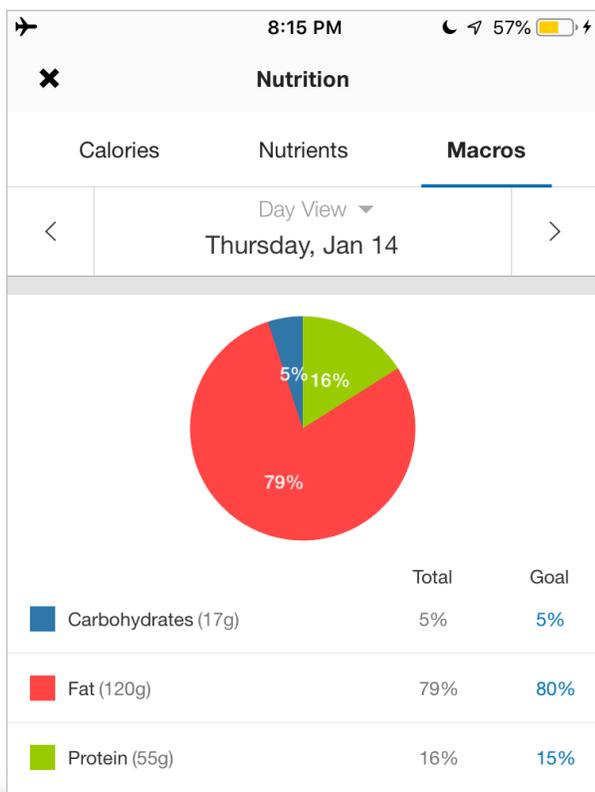
Default Goal	
Calories	1,750
Carbohydrates 22 g	5%
Protein 88 g	20%
Fat 146 g	75%

Set Daily Goals
Create custom goals for different days of the week

Changing MyFitnessPal goal settings on the iOS app

3. **Log everything you eat** throughout the course of the day in MFP. For packaged foods that have a barcode, use the app's barcode scanner to import the macronutrient data into your personal profile.

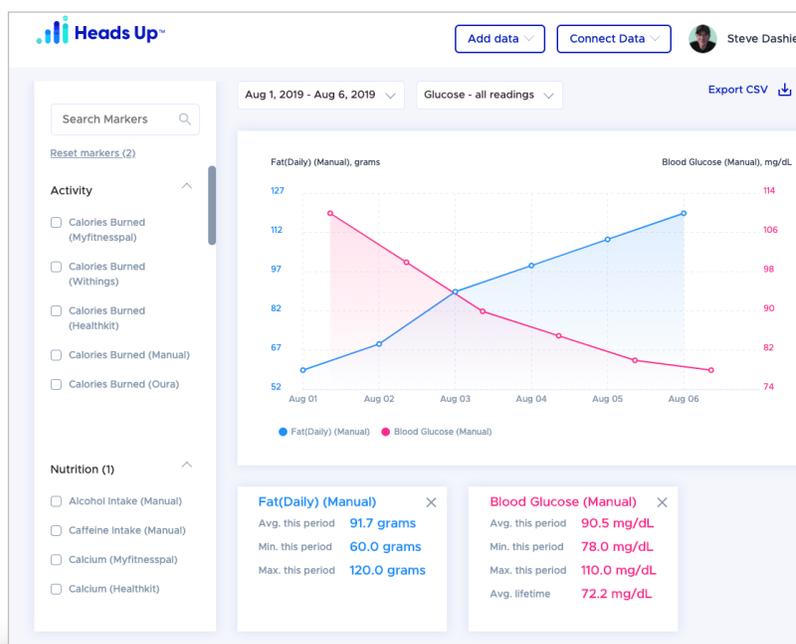
4. **Regularly check your progress** throughout the day to ensure you are adhering to your macronutrient goals and adjust food intake accordingly. The image below shows how you can check your progress through the app to see how close you are to your target ratios:



MyFitnessPal nutrition ratios

5. **As a final option, consider connecting your MFP account to the Heads Up app** so you can track your nutrition data along with everything else covered in this eBook. For example, the graph above compares daily fat intake (measured by MFP) with daily blood sugar readings (entered manually).

Yes, this takes some work up front, however, the process is usually a very educational exercise. After a couple weeks, you'll have the



Dashboard view in Heads Up keto tracker app

hang of it, and you'll have an easier handle on everyday nutrition, and where you are in relation to your goals. Keto diet users report that they often get to the point where eating to their target macronutrients becomes almost intuitive. And, as you become more advanced with the ketogenic diet, you may find yourself revisiting your macros and tweaking them to suit your specific body and health goals as they evolve over time.

Learning how to properly calculate and track macronutrients is essential on keto so it's worth the time investing in this skill. If you have

questions, there are tons of online ketogenic communities that can help you dial things in and answer your questions (see appendix). You can also find keto coaches who will work with you directly if you find the online communities intimidating and/or overwhelming.

Step 2: Balance Your Blood Sugar

In addition to a preferred nutrition app, your glucometer will become another important tool in your keto plan. The Keto-Mojo glucose and ketone meter is an accurate and affordable dual-function meter (glucose and ketones). It electronically syncs with the [Heads Up health tracker app](#) so you can monitor your glucose and ketone readings alongside all your other health metrics. Clearly seeing the bigger picture is important for tracking progress and fine-tuning a keto plan based on your goals.



Keto-Mojo Glucose and Ketone Meter

New Blood Glucose

Date
Aug 28 2019

Time
10:26 AM

Blood Glucose
85 mg/dL

Notes (optional)

Save and add another Save and exit Cancel

Manually add glucose entries in Heads Up app

There are a few important areas to pay attention to when it comes to tracking your blood sugar on keto:

- ◆ **Fasting blood sugar:** Your “fasting” blood sugar is taken after consuming no food or

drink (except water) for a period of 8 hours. Typically, this measurement is taken first thing in the morning upon waking. Your fasting blood sugar will drop significantly on keto as you reduce your carbohydrate intake. This is also one of the first telltale signs that your body is on the way toward a state of ketosis.

In the earlier example of Joe, when he’s not following a low-carb/high-fat ketogenic diet (i.e. eating whatever he wants), his fasting blood sugar typically ranged between 95-100 mg/dL (5.3-5.6 mmol/L). When he’s following a keto diet, his fasting blood sugar is typically between 80-85 mg/dL (4.4-4.7 mmol/L). Joe has come to know his body well enough that after about three consecutive days of fasting readings between 80-85 mg/dL, he expects to be in ketosis and then will measure his ketone levels to confirm (*more on that later*).

◆ **Post-prandial blood sugar:** “Post-prandial” simply means a blood sugar reading taken after you eat a meal. The goal on keto is to keep blood sugar low, thereby minimizing our insulin response. If you aren’t sure how your body will respond to a certain meal, test your blood sugar one-hour, two-hours and three-hours after eating. Try to limit post-prandial blood sugar to below 140 mg/dL (7.8 mmol/L) and ideally below 120 mg/dL (6.7 mmol/L). Healthy fats consumed in food have virtually no impact on blood sugar, which is part of the reason why a low-carb/high-fat diet is excellent at keeping you feeling full AND minimizing blood sugar response.

In addition to Keto-Mojo, Heads Up integrates with wireless glucometers from iHealth. We can also connect to Apple Health and pull in glucose readings from any apps that write data to Apple. Or you can go old school and just enter the readings manually. We prefer this approach because it allows you to enter more detail with each reading. It’s the contextual details that are equally, if not more important, than the reading itself.

Step 3 – Beat Down Body Composition

Weighing oneself every few days is another important monitor. The state of ketosis causes a diuretic effect resulting in weight loss due to loss of body fluid in the first few weeks of going keto. This is why it is imperative to hydrate with fluids and electrolytes and keep

an eye on the scale, especially during the early stages of keto.

Once your body’s mineral and fluid levels have had a chance to adapt to the new diet, your body will start melting away unwanted fat. By keeping blood sugar low through a low-carb/high-fat diet and minimizing insulin response, you shift the body’s metabolism to burning fat instead of storing fat. Even better is the fact that unlike a traditional calorie-restricted diet, you won’t be sacrificing muscle mass as you lose weight.

It is important to track BOTH weight AND body fat on ketogenic. If the weight number isn’t moving down but the body fat number is, you are on the right track. You are building and maintaining muscle mass while the fat mass is going down! You will likely notice your clothing starts to fit much better, even though your total scale weight may not be moving as fast as you’d like.

Heads Up can automatically connect to wireless WIFI enabled scales such as FitBit, Withings and others. The app can also import your weight readings from Apple Health or Google Fit. You can also enter the data manually from any scale you want.

There are limitations with scales as a measure of body composition, but the data can still be a helpful guide. For more advanced body composition testing, consider periodic DEXA scans, which are considered the gold standard.

For example, using a Tanita body fat scale at home for daily readings can be supplemented with bi-annual DEXA scans.



Writings WIFI Scale

Lastly, you may also want to track body measurements. In many cases, scale weight may not be moving as fast as you'd like (you may even be gaining weight as you build muscle and lose fat), but your body composition will be improving dramatically. You can track your body tape measurements in your Heads Up profile as well.

New Measurement

Date: Aug 28 2019

Time: 10:28 AM

Neck: 16 inches Shoulders (widest): 46 inches

Hips (widest): 36 inches Waist (narrowest): 32 inches

Waist (at belly button): inches Chest (below breasts): inches

Chest (at nipples): inches Bicep (flexed, widest part): inches

Forearm (widest): inches Thigh (widest): inches

Calf (widest): inches

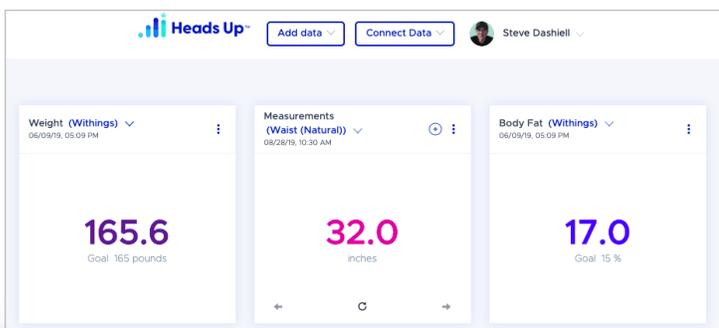
Notes (optional)

Save and add another Save and exit Cancel

Track progress of body tape measurements

Step 4 – Time to Test the Ketones

So now you've dialed in your macronutrients with MyFitnessPal (or another nutrition app), you've seen your fasting blood sugar readings come down as you've restricted carbohydrates in your diet, and you are seeing your weight start to come down on the scale. Next step is to test ketone levels to ensure your body is entering into ketosis.



Track body composition with the Heads Up app

There is a big difference between just eating a low-carb/high-fat ketogenic diet and actually being in a state of ketosis which you've verified with ketone testing. This is an important distinction to understand, especially for beginners.

There are three methods you can choose from for testing ketones:

1. **Blood ketones:** This is considered the most accurate method. Just like testing blood sugar, it's a drop of blood onto a finger stick to get a reading. Nutritional ketosis is considered to be in the range of 0.5 – 3.0 mmol/L.
2. **Breath ketones:** This method is more affordable as it does not require expensive test strips. Devices like the Ketonix breath ketone meter and the LEVL device provide a reusable and accurate method for testing.
3. **Urine ketones:** This is the most basic method, yet it does work for many people and the test strips are relatively inexpensive. This is a great place to start for beginners and you can move into the blood or breath methods if your needs (and your budget) permit.

Some people may find they can effortlessly enter ketosis within a few days of following a low-carb/high-fat ketogenic diet. For others, it may take weeks of trial and error. A lot

depends on your own unique level of metabolic health.

Testing ketone levels can be a very helpful piece of biofeedback as you learn to master the ketogenic diet. Note that the Heads Up app supports all three methods (blood, breath and urine).



Perfect Keto urine test strips

Once you have a good handle on what it feels like to be in ketosis and which variables affect your level of ketosis (sleep, stress, exercise, etc.), you may find yourself needing to test ketones less frequently. Conversely, if you are using the keto diet for managing specific health conditions and/or disease states such as cancer, epilepsy, diabetes, obesity or fasting protocols, you may still need to test regularly.

Step 5 – Don't Forget the Bloodwork

The last important piece is keeping an eye on your blood chemistry. We highly recommend periodic lab work (ideally every six months) to make sure everything on the inside is trending in the right direction as you continue your keto journey.

There are a few specific sets of lab values to monitor. We break them down here with some high-level guidance on what you should expect to see. Work with a health care practitioner for further guidance on running lab tests and interpreting results.

◆ **Lipid panel (cholesterol, HDL, LDL, triglycerides and particle size):** In general, your lipid panel numbers should improve on keto. While total cholesterol and LDL cholesterol may increase, this should be more than offset by the increase in HDL (good cholesterol) and the drop in triglycerides as you reduce refined carbohydrates. LDL particle size should also improve as your make the switch to a diet higher in healthy fats that are rich in omega 3's.

◆ **Inflammation (hs-crp, homocysteine):** These and other markers of inflammation should start to come down as processed foods, refined sugars and other inflammatory foods make their way out of your diet.

◆ **Blood sugar (glucose, fasting insulin and hemoglobin a1c):** Fat consumed in food has virtually no impact on blood sugar and insulin levels. As such, metabolic markers like glucose and insulin should start to trend down as you make the switch to a low-carb/high-fat diet.

◆ **Full thyroid panel:** If you feel you are doing everything right but are still not able to lose weight on keto, you may want to consider a

full thyroid panel. This panel will check your body's hormonal and metabolic systems to ensure they are in working order. This panel can also be helpful for those who have been on keto for a long period of time. Some long-time keto dieters report symptoms such as hair loss, cold hands and other symptoms which may suggest nutrient deficiency or thyroid-related issues.

The screenshot shows the 'My Biomarkers' section of the Heads Up app. It features a risk assessment bar (Low Risk, Moderate Risk, High Risk) and a date range (01/05/2018 to 01/16/2019). The data is organized into two main sections: Cholesterol Ratios and Complete Blood Count (CBC).

		Low Risk	Moderate Risk	High Risk	01/05/2018	01/16/2019
Cholesterol Ratios						
Non-HDL Cholesterol	mg/dL	< 130	130-190	>190	150	
Total:HDL ratio		< 3	3-5	>= 5	2.74	
Trig:HDL ratio	ratio	< 1	1 - 3	>= 3	0.5	
Complete Blood Count (CBC)						
White Blood Cell Count (WBC)	Thousands/uL	3.8 - 10.8		<3.8 or >10.8	3.43	6.05
Red Blood Cell Count (RBC)	Million/uL	4.2 - 5.8		<4.2 or >5.8	5.15	5.29
Hemoglobin (Hgb)	g/dL	13.2 - 17.1		<13.2 or >17.1	14.7	15
Hematocrit (HCT)	%	38.5 - 50		<38.5 or >50	44	45
Mean Cell Volume (MCV)	fL	80.0 - 100.0		<80 or >100	85.6	85.1
Mean Cell Hemoglobin (MCH)	pg	27 - 33		<27 or >33	28.5	28.4
Mean Cell Hemoglobin Concentration (MCHC)	g/dL	32.0 - 36.0		<32 or >36	33.3	33.3
Red Cell Distribution Width (RDW)	%	11.0 - 15.0		<11 or >15	12.9	13.7

Tracking lab tests with the Heads Up app

The Heads Up software is connected to over 30,000 medical facilities across the United States and can automatically sync your lab test results. And for facilities not yet in the app, it only takes a few minutes to enter the data manually.

The Bottom Line on the Ketogenic Diet

More and more people are turning to the ketogenic diet for the variety of health benefits that come from a body burning fat for fuel as

opposed to sugar. Although those benefits don't always come easy and ketogenic diets take some work, most who make the choice realize a direct and positive impact on their personal health metrics.

Heads Up was built specifically for this purpose. We give you the tools to track all your data and kick maximum

keto butt! You can get started for free by visiting our website at headsuphealth.com. And if you have any questions as you start your keto journey, our experts are here to help!



We are on a mission to inspire and empower people to take control of their health and optimize their performance.

For more on tracking keto and personal health metrics, and to begin a free trial of Heads Up, visit headsuphealth.com.

www.headsuphealth.com

follow us online



Appendix

Recommended reading for beginners:

- The Art & Science of Low Carbohydrate Living
- The Art & Science of Low Carbohydrate Performance
- Keto Clarity

Macro calculators:

- Perfect Keto macro calculator
- Ketogains macro calculator
- Maria Mind Body Health macro calculator
- ruled.me ketogenic calculator

Online communities:

- Ketogenic Success
- KetoGains
- Optimising Nutrition
- Optimal Ketogenic Living
- r/keto
- Ketogenic.com

Recommended tools:

- Keto-Mojo dual-function glucose and ketone meter
- Tanita BF-679W weight and body fat scale
- Withings wireless scale
- FitBit wireless scale
- Perfect Keto urine test strips
- Ketonix breath ketone meter
- LEVL breath ketone meter