



PROUDLY PRESENTS

KETO//OS

# PLAYBOOK

Knowledge is Power

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# WHAT IS KETOSIS?

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Think of the body as a hybrid car that can burn electricity or gasoline for fuel. Our bodies are designed to use two different fuel sources, they can burn sugar (glucose) or fat (ketones).

This is a natural adoption from the Paleolithic Era when humans would cycle through short periods of scattered vegetation and times of a purely carnivorous diet. Summer season would bring spouts of vegetation to our primal ancestors and they would put on some body fat during this abundant time because glucose is a key to fat storage.

Winter months would bring little or no vegetation resulting in a diet full of animal fat and meat. This resulted in fat adaptation and required ketosis, burning of fat for fuel.

Our bodies can only store a finite amount of glucose in liver and muscle. Typically this is about 2,000 calories. When you are a sugar burner, you need a constant source of fuel such as glucose that comes from carbs.

Our bodies can store large amounts of fat. For example, a 150 pound person with 10% body fat has over 60,000 calories of fat storage! This is what enabled our n8tive ancestors to endure long winters without literally starving to death. Today, we have an endless supply of food (Can we really even call it that anymore?) all year around. This means most people never tap into their ketones, or n8tive fuel source.

# THE KETO//OS SUPPLEMENT

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The “Ketone Operating System” is a therapeutic ketone technology. KETO//OS comes in a powder form and is easy to take. Mix with 12 ounces of plain water or your favorite carb free flavored beverage, and drink it! Within 15-30 minutes of drinking KETO//OS, your body enters the state of ketosis - that n8tive state we are all striving to achieve.

## **Who is KETO//OS for?**

KETO//OS is for any individual that is looking to improve her or his body, life and performance capacity. Whether you are looking to lose excess fat, need to reduce inflammation in the body or just want to be more mentally focuses and clear, KETO//OS makes it possible for you. Studies suggest there are a wide range of benefits that come from using ketones as fuel. These include:

- Body recomposition
- Blood sugar balance and enhanced insulin sensitivity
- Increased satiety and decreased food cravings
- Improved energy levels, oxygen capacity, motor performance & athletic performance
- Migraine treatment
- Neuro-protective benefits in seizure disorders; ADHD; Alzheimer’s disease, memory and cognitive function; Parkinson’s Disease and Multiple Sclerosis
- Autism and improved behavior and social impacts
- Mood stabilization in bipolar disorder (type II)
- Stroke prevention; cardiovascular disease; metabolic syndrome management; improved cholesterol levels
- Inflammation management/reduction
- Endurance enhancement

## WHAT TO EXPECT WITH KETO//OS

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When taking KETO//OS, all the benefits of ketones are open to you. The effects of KETO//OS happen with 15-30 minutes of consumption.

For those new to KETO//OS or MCT oils in general, digestive distress can occur initially as the body is not use to the introduction of the MCT oil (the good fats). The best way to avoid this is to work up to a full serving of the product. As you increase your fat intake, any digestive distress should subside in a short timeframe.

It is important to understand that KETO//OS can provide you with the power of ketones without ever changing your diet. The more you adopt the keto lifestyle, however, the more benefits you will see. If you choose not to change your lifestyle, KETO//OS will still provide you with benefits of ketones without any other lifestyle changes.

### SPICE UP YOUR KETO//OS

*Mix with mineral water like Lacroix, add coconut milk for a creamy taste or look for flavor additives such as Stur.*

*Keep your flavor fresh!*

# THE N8TIVE ZONE

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For those interested in taking the keto lifestyle to the next level to gain added benefits from a diet upgrade, there are many different options for you. First, it is important to understand the n8tive state and how ketones work in the body.

## **The n8tive Fuel Source**

Studies show our bodies thrive when living off of fat (ketones) for fuel. Our muscles will reject glucose in favor of ketones when ketone levels in the blood are high enough. Our brains thrive on ketones and your mental clarity, cognition and memory skyrocket.

Ketosis is defined as a blood ketone level of 0.5 to approximately 6.0. An ideal range is between 1.0 and 3.0. Above a ketone range of about 3.0, you will not see any added benefits. Above an 8.0 or 10.0 can be a dangerous level causing a condition called ketoacidosis. Please note, that ketoacidosis only occurs when the body is not responding to insulin at all (as in type I diabetes). This is not a common occurrence, and a normally operating body will disregard excess ketones in urine excretion.

When it comes to ketones, a level over 3.0 is not better. However, by raising your ketones between 0.5 to 3.0, we see huge benefits.

## **8 Key Benefits of Ketosis**

1. Reduced hunger and cravings
2. Surge in energy
3. Improved moods
4. Sharper mental clarity and focus

5. Fat loss and improvement in body composition
6. Autoimmune disease healing and prevention
7. Skin improvements such as softer, suppler skin or elimination of rashes/eczema/acne
8. Lower inflammation which can improve chronic pain, reduce heart disease risk and cancer risks

## **Achieving the n8tive Zone**

When it comes to developing a lifestyle that keeps your body in the n8tive zone, there are 8 steps to follow. These are a few steps that are going to dramatically improve your results when taking KETO//OS.

### **1. Take Keto OS with your first meal or before a workout.**

If you are practicing intermittent fasting, wait to take KETO//OS until right before your first meal. If needing an extra boost of energy before an intense workout, take KETO//OS 60 minutes before the workout.

### **2. Reduce your carbohydrate intake.**

Making a few changes in your carbohydrate intake can have drastic results. Try eliminating sugars in your diet as well as reducing your carbohydrate intake, especially all grains. Grains set off an inflammatory response in your body and reduce the level of ketones in your body.

### **3. Increase your fat intake.**

Fat is your source of fuel. Eat lots of healthy fats, but look for stable saturated fats. Avoid omega-6 all together and limit the intake of poly-unsaturated fats (trans fats). This means no vegetable oil, margarine, etc. Rely on coconut oil, butter, lard, beef tallow, etc.

#### **4. Reduce your caloric intake and begin intermittent fasting.**

Eat all of your food during the day in a 6-hour window of time and nothing outside of that timeframe.

#### **5. Drink more water.**

You need to drink half of your bodyweight in ounces of water per day. The more you drink, the better.

#### **6. Add salt and electrolytes to your diet.**

Your body releases much of the salt (and associated water) that it holds onto with higher carbohydrate diets so you need to add extra. This means you need to add salt to food, eat high potassium foods like avocado, coriander, parsley, almonds, spinach, Swiss cheese. These all have more potassium per gram than a banana without the added sugar. Supplements are also a good option.

#### **7. Eat the last meal of the day at least 3 hours before bed and get at least 8 hours of sleep.**

Eating too close to bedtime interferes with natural human growth hormone production in the body that occurs during sleep. This can stall weight loss.

#### **8. Move more.**

You will experience a surge in energy so use it in your workouts. If the gym is not for you, park on far side of parking lot, walk the dog. Little movements add up over the day.

# THE KETO LIFE

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In a natural state, our bodies take two to four weeks or more to turn this switch from burning sugar to burning fat for fuel. The switch only occurs when carbs are restricted to 30 grams per day or fewer for most people.

This is where KETO//OS changes the game. By supplementing with exogenous ketones, we can make the switch happen faster and start using ketones for fuel within minutes. You will see ketone levels in the blood rise within 60 minutes of taking KETO//OS.

For those that feel ready to adopt bigger changes in their lifestyles, there are some steps and guidelines that will help you to make those changes over time. You don't want to shock your body or your lifestyle all at once so it is best to take time and make changes one step at a time.

## **Step 1: Add KETO//OS to Your Daily Routine**

Just adding Keto OS to your diet while making no other changes to your lifestyle can provide benefits. There are benefits to doing this without other changes in your lifestyle.

*Benefits include:*

- Regulation and lowering of blood sugar
- Reduce appetite by running more efficiently on fewer calories
- Cognitive improvements that include focus and mental clarity
- Inflammation reduction
- Some fat loss due to a decreases in calories and increases in water and electrolytes
- It's all achievable with two servings per day or more of KETO//OS to stay in ketosis

*Follow a Keto Lifestyle to optimize your body's full potential regarding:*

- Weight loss
- Large energy improvements
- Mood, focus, memory improvements
- Autoimmune disease healing
- Skin health
- Reduction in inflammation that leads to cancer, heart disease, Alzheimer's risk, etc.

For those that are ready for a bigger leap into the Keto Life to see more changes, it is time to adopt a n8tive way of life.

## **Step 2: Adopt the n8tive Way of Life**

Ready to jump into a n8tive way of life? To begin, eliminate added sugar from foods and processed carbohydrates from your diet.

*Guidelines:*

- Do not consume more than 50 grams of carbohydrates per day
- Increase your fat intake to account for 60% to 70% of your daily caloric intake. To calculate the number of calories are coming from fat, 1 gram of fat equals 9 calories.
- Avoid foods with added sugars
- Avoid starchy vegetables like root vegetables, potatoes, corn, etc.
- Reduce your calorie intake

There are benefits and downsides to only going to this point as well.

## **The benefits of adopting the n8tive lifestyle are:**

- Blood sugar becomes regulated, even if your blood sugar is low
- Noticeable reductions in appetite

- Noticeable improvements in cognition, focus, and mental clarity
- Large reduction in inflammation that leads to improvements in auto-immune and other inflammatory diseases like IBS or acid reflux
- Steady fat loss week over week
- It only requires one to two servings of KETO//OS to stay in this state

As your body gets further into the n8tive state, it will stay in a ketogenic state on its own and blood sugar level regulation and inflammation reduction will continue to improve, and you will continue to see fat loss.

### **Step 3: Join the Keto Life in a Completely n8tive State**

In this phase, you can continue to use KETO//OS to boost the ketone levels in your blood while in a ketogenic state. You are still going to keep your carbohydrate levels under 30 grams.

A new component is to moderate your protein levels to keep it to 0.7 times your lean body mass. As an example, if you weigh 175 pounds with a body fat percentage of 25%, then your lean mass is equal to 175 pounds times 100 minus 25% ( $175 * 0.75$ ). This equals 131. Take 131 times 0.7 to keep the protein level where it should be ( $131 * 0.7$ ), equaling 91. This means that you should keep your protein to 91 grams per day.

The benefits of staying in the n8tive state include increases in metabolism. If you are weight training, you will want to add 1 extra packet of KETO//OS to your diet before an intense workout.

Another element is intermittent fasting. You want to be sure to eat all of your food in a 6 hour window during the day. Do not deviate and eat outside that window.

# INTERMITTENT FASTING

INCREASES	DECREASES
<ul style="list-style-type: none"> <li>↑ Grehlin levels to reduce overeating</li> <li>↑ Insulin and leptin sensitivity, lowering risk of diabetes, heart disease and cancer</li> <li>↑ Ability to become Keto-Adapted turning your body into a fat burner!</li> </ul>	<ul style="list-style-type: none"> <li>↓ Triglycerides, lowering heart disease risk</li> <li>↓ Inflammation and free radical damage</li> <li>↓ Weight gain and metabolic disease risk</li> </ul>

## EXAMPLE SCHEDULE



*If pregnant, nursing or if you have metabolic syndrome, don't fast until you have fixed your insulin or are no longer breastfeeding.*

## TYPES OF KETONES IN THE BODY

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There are three types of ketones in the body. Acetate, acetoacetate and beta-hydroxybutyrate (BHB).

When you have excess carbohydrate intake, after your body's muscle and liver storage is filled, your body takes the extra glucose from carbohydrates and stores them in fat, which is the function of insulin. Excess ketones, on the other hand, cannot be store back into fat and are excreted through the urine or breath.

These ketones change over time as your state of ketosis changes and requires testing that can be done in a few different ways. There are benefits and downsides to each type of testing, as well.

# TESTING FOR KETONE LEVELS

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## 1. Urine test strips

If your body has been in ketosis for a while, you will see a reduction in acetoacetate. Muscles begin to use acetoacetate and turn it into Beta-Hydroxybutyrate for fuel, so less is present in urine. Urine strips are only able to test for acetoacetate.

*The benefits are:*

- This is a cheap way to test.

*The downsides are:*

- They are not very accurate in showing level of blood ketones
- Typically, they are skewed results because of your level of hydration
- They will decrease as the body is more keto-adapted as they only test acetoacetate

## 2. Blood test strips

These test strips test for Beta- Hydroxybutyrate (BHB), which is what your body uses for fuel.

*The benefits are:*

- This tests the ketone body (BHB) that your body uses
- It's the most accurate test of level of measurement for ketosis
- Optimal range is one to five (two to five is great for fat loss)

*Downsides include:*

- Test strips are very expensive at \$2 or more per strip
- Finger pricking for blood is needed

# KETO OS FOR THE ATHLETE

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When it comes to athletes, the demands are much different. You will want to stick to a stricter diet. To fully engage in the ketogenic lifestyle to improve performance, there are some changes to diet that can get you to your optimal performance level.

There are several different types of keto diets that when used alongside KETO//OS, will put your body in the best state possible.

## Standard Ketogenic Diet (SKD)

This diet provides you with the ability to lose stored fat while protecting lean muscle mass. One of the biggest problems with rapid weight loss in other diets is that you not only lose fat, but muscle as well. With the SKD, your body starts to convert the food you eat into ketones that is used as your body's fuels source. You begin burning ketones over carbohydrates and sugar. This keeps the blood sugar levels stable in the body. Spikes in blood sugar are responsible for increased cravings, overeating, and low energy levels. By keeping the blood sugar stable, you are able to control your cravings and the portions you eat.

The key to the SKD is switching to a high fat, low carbohydrate, moderate protein balance in your diet.

### PER MEAL



**FAT = 65%**

**PROTEIN = 30%**

**CARBS = 5%**

**CALORIES****FAT = 9 CAL/G****PROTEIN = 4 CAL/G****CARBS = 4 CAL/G**

SKD is not a diet that will make huge strides in muscle gain for athletes. It is designed to help shed excess fat. This diet is also not designed to “carb reload”. This can be hard for some to cut out carbohydrates completely so it is alright to add a high carb day once or twice per month if needed.

**Complementary Supplements to Use**

Fat can be hard to digest so there are some supplements to add in addition to KETO//OS to help with your performance. Look for quality enzymes that have the following in them:

- Protease S
- Protease SP
- Lactase
- Lipase

**Targeted Ketogenic Diet (TKD)**

This diet works best for those athletes that engage in high-intensity workouts, like sprints, or those bodybuilders achieving aesthetics. This is because with high-intensity workouts, you need a carbohydrate based diet for fast burning before the workout or race. Some bodybuilders are not comfortable or able to switch to a completely low/no carbohydrate diet so this option may be better for those people. The TKD is great for performance maintenance and has proven to some lean muscle mass.

## **Macro-Timing**

The carbohydrates in the TKD are used for a specific purpose in your life. You are going to want to introduce these carbohydrates at very specific times in relation to your performance, typically 30 minutes prior to a workout.

One of the best ways to do this is to combine branched chain amino acids (BCAA), protein, and liquid carbohydrates. This is going to get amino acids in the body quickly to help with muscle repair whereas eating protein may not be enough. A good rule of thumb for calculating the appropriate level of carbohydrates is 1.1 grams of carbohydrates per pound of bodyweight right after a workout. You also want to be careful with how much fat you ingest immediately after a workout. It is best to wait about two hours before a keto-based meal.

This diet is for two different types of people: the finely tuned athlete and the average person who wants more carbohydrates in their diet. You must be very much in touch with your body and its needs. On the flip side, the average person that wants to be able to introduce carbohydrates on a weekly basis.

The idea behind the CKD is to fluctuate your glycogen levels to allow for the high carbohydrate impact. The benefit of the CKD is to keep you lean while allowing slow muscle gains – even large muscle gains over time.

## **For the Average Person**

You will want to take one day per week and add between 300 and 600 grams of carbohydrates to your diet. However, these need to be low on the glycemic index.

*These foods include:*

- Barley
- Long grain, brown rice
- Rolled oats
- Lentils
- Beans

### **For the Athlete**

You might need to incorporate high carbohydrate days one or two times per week. These can be split between a very high day (600 grams) and a lower day (300 grams). You want to make sure these are slow burning carbohydrates and be focused around high-intensity or heavy lifting workout days.

While these single days of carbohydrate laden meals will technically take you out of ketosis, you are still in a ketogenic state the rest of the week so you still maintain that balance and the benefits of a ketogenic lifestyle.

You will still want to incorporate your KETO//OS on these higher carbohydrate days. A good option is 1 serving when you wake up and half a serving before a workout.

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\*The Food and Drug Administration has not evaluated statements made in this literature.  
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