

Keto And CrossFit – Are Fat Powered WODs Possible?

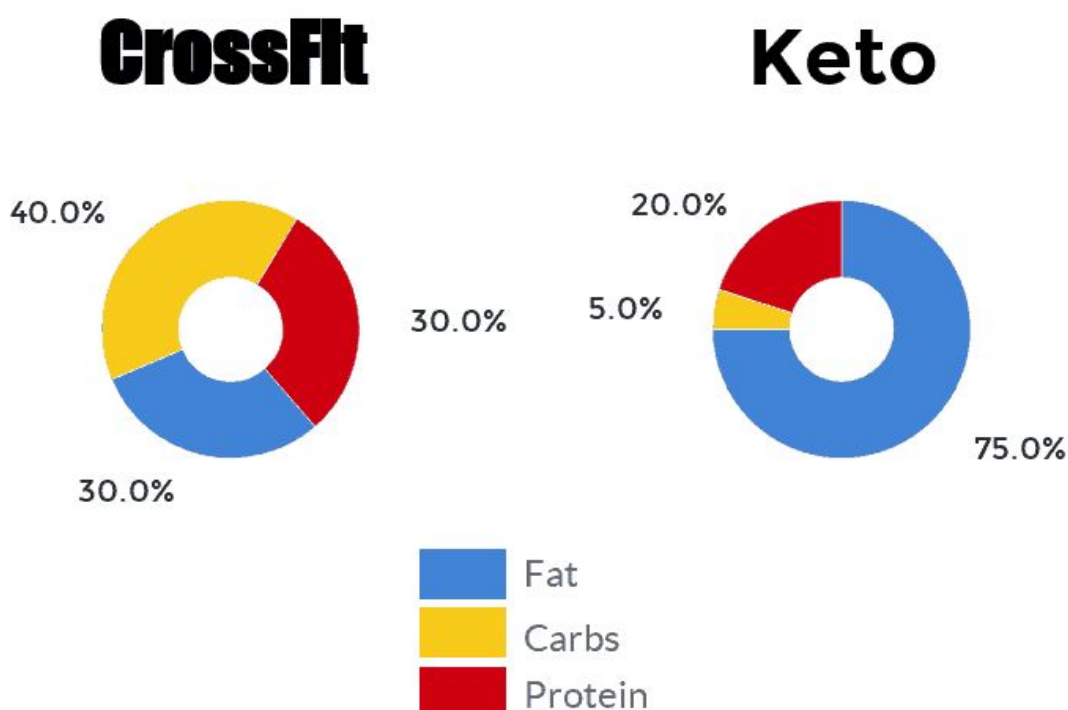
Published: August 31, 2018

This post contains references to products from one or more of our advertisers. We may receive compensation when you click on links to those products. For an explanation of our Advertising Policy, visit [this page](#).

Can ultra low carb and high-fat nutritional eating regimes be a part of the CrossFit ideal of optimal nutrition? [CrossFit's 40/40/30 macronutrient ratio](#) of **carbohydrate to protein to fat** is nothing like the 5/20/75 ratio of the ketogenic diet.

I learned through experimentation (by accident at first) that energy levels don't depend on carb intake, but more on the quality and density of the foods you consume.

Keto vs CrossFit Macros



You probably found this blog by searching for something like 'Keto and CrossFit'. And the likelihood is that you have read other opinions on the topic. Other bloggers have written about the topic but their take is often like this:

The type of exercise you do in a CrossFit class relies on energy systems that run primarily on carbohydrates for fuel. During CrossFit, your body will use the carbohydrate stored in its muscles called "glycogen".

If you restrict carbohydrates, as in the keto diet, you will have low power output and will not feel good during a CrossFit workout. However, if you eat too much carbohydrate the excess energy will be stored as body fat. This is why it is important to find the right carbohydrate intake for YOU, which we will discuss later.

I disagree with this. My personal experience tells me doing CrossFit on a low carbohydrate diet is possible. And studies on energy and exercise (often with a CrossFit element) prove that you can **perform to a high level and run on ketones** at the same time.

The CrossFit community is often at the edge of nutritional trends and breakthroughs. **Paleo** is big in CrossFit boxes. The zone diet was another popular eating regime. The community has resisted keto.

First, let's look at why keto might not work for you as a CrossFitter.

Negative effects of Keto on CrossFit Performance

First, some personal anecdotes.

I've experienced a few 'negative' effects of keto while doing CrossFit and other activities.

The first notable change I experienced was light-headedness. Bending after lying down or doing some kind of exercise would send my head reeling. Standing up quickly would also give me the feeling that I was about to faint. I still get this sensation but it's infrequent and fortunately, it stops me for only a second. I consider it a by-product of the years of **relying on sugar as a primary fuel source**.

The second notable change was a **tiredness in my quads**. I was a long-distance cyclist for years and my quadriceps muscles could always take a lot of punishment, or so I thought. One of my

strengths was doing lots of squat movements with a medium weight (for me) for high reps. However, in my first month of keto, my quads would tire out pretty fast.

I even noticed fatigue during yoga classes. Poses that I can hold for a long time became difficult or impossible.

The third experience was more intense. One day, during a normal WOD of cleans, burpees and handstand push-ups, my quads seized up near the end of the workout. It wasn't so much of a pain but an extreme discomfort as **cramp** set in hard.

I've never immediately experienced soreness in muscles before. Some kind of **keto-induced rapid DOMS**? In 43 years that's the first time my quads have ever cramped in the middle of training. A full 9 days passed before all traces of tenderness in the muscles disappeared.

Apart from these issues, the journey to keto-fueled CrossFit athlete has been easy.

How to do Keto and CrossFit.

There are three main scenarios here:

1. You eat a high-carb diet and do CrossFit. You want to try the keto diet and continue training.

My first piece of advice is to pull back on the training volume. The change in diet might make you a little weak and disoriented for a while. "Keto flu", as it's called, is likely to set in and training could be difficult or even dangerous. Take a week or two off (depending on your carb dependence) and try to ease your body into the change. After all, we're doing this for our health, right?

Hurting your body through **inflammation and adrenal fatigue** won't get you the results you want. That will set you up for an even longer hiatus from the gym. The stress of working out hard and following a new diet that is, on the face of it, restrictive, is often too much for CrossFit athletes of any level.

2. You eat a moderate carb diet and do CrossFit. You want to try the keto diet and continue training

Training.

This was my situation. I wasn't eating a huge amount of carbs so I could keep training. I was following a type of Paleo diet so it was easier for me to continue doing CrossFit. All the same, I stopped for almost a week before returning to the gym.

I noticed some light-headedness and some workouts were a lot more taxing than they would have been. I still recommend taking at least a few days off and training at a much lower intensity until you have put a week or two behind you.

3. You already follow a Keto diet and you want to try CrossFit.

Go right ahead! CrossFit demands a mixture of high-intensity bursts of speed and slow, grinding tempos. If you are a gym bunny used to doing a routine repeatedly, you might find CrossFit a jolt to the system.

But if you are already keto-adapted, you shouldn't have any problems with energy. Your fitness level or strength level might not be up to standard but that will come with training.



Nutrition

Here are a few examples of my typical post-workout meals:

These are approximate measurements as I never weigh my food or pay too much attention to portions. I just make sure most of it is fat (by calories) and I am satiated. Nutrition is not something to guess, I know, but I test myself for ketones and blood sugar levels daily and I know my body pretty well.

Lunch 1. 100g (gross weight) of pork or fish 50g of kale 100g of turnip or carrots 100g of Broccoli A large spoonful of butter 2 tablespoons of flax or [MCT oil](#) 1 tablespoon of coconut oil 1 avocado

Lunch 2. 120g of eggs (70% egg yolk) 2 tablespoons of coconut oil 1 tablespoon butter 50g of spinach 100g of cauliflower 50g of nuts 2 avocados 2 squares of dark chocolate.

If I've had a very heavy session, I will add plenty of carrots, parsnip, or some other kind of **starchy veg to the post-workout meal**. I might include a few bananas, figs, dates or blueberries too.

Breakfast is strong coffee with coconut oil (1 tablespoon), MCT oil, butter, and heavy cream (1 teaspoon).

Dinner is like lunch but includes pork belly, beef, salmon, and sometimes chicken.

Snacks are nuts or spoonfuls of oil and avocados. Sometimes I'll include coconut based bread slices.

I fast from 19:00 to 12:00 the next day so it's a good 15 hours fasting period only broken by the coffee and copious amounts of ginger and turmeric tea (no sweetener or sugar). No fruit apart from the occasional post-workout additions.

The Fastest Way to Ketosis

Blasting 30 thrusters out followed by a 3-hour walk is a 'fast' way to get ketones flowing. I've never tested this as I don't have 3 hours to test the theory and when I walk for this long, I'm in the hills without a [ketone monitor](#).

From my own tests, immediately after an hour's CrossFit class (a workout of the usual strength, gymnastics, and 10-30 minute WOD) my ketones are down to 0.5 mmol/L (millimoles per litre) and my **blood sugar** is through the roof, up to 150 Mg/dL. My normal blood glucose hovers around 75-80 Mg/dL.

Fasting and eating a ketogenic diet is the only way I can get into ketosis. Long walks of 1-2 hours send my blood glucose to about 110 Mg/dL (milligrams per deciliter) and reduce the ketones in my blood.

Ketosis and Strength Training

As you know, CrossFit programming is big on weight training. Many CrossFit athletes worry that following a keto diet will ruin their strength gains. It's true that slimming down (one of the wanted or unwanted effects of the ketogenic eating regime) will reduce strength. Not always. But for regular people like me, ***weight moves weight*** and the opposite is true.

Some days I can lift heavy and others I can't. I've lifted just as heavy on a low carbohydrate diet as I have on a moderate (my previous diet) carb diet.

From a **metabolic conditioning** point of view, however, I believe my performances have improved, especially for mid-to-long workouts. This goes against conventional wisdom about the depletion of glycogen stores in the liver causing a bonk. But I guess I am better able to run off body fat stores than sugar. And my body need not change energy source in the middle of a workout.

Keto and CrossFit – How long before you see results?

First, it's important to know what you expect to see? Weight loss, muscle building, strength increases? What's your goal?

For many people, the **Ketogenic diet is a path to losing weight**. Chiselled abs will never go out of vogue and a flat stomach is possible with this diet. As long as you are strict with the implementation.

Problems occur when people stray from the core plan: reducing the fat intake for fear of 'getting fat' or increasing carbs to power through a long WOD. These rookie errors will ruin your chances of getting into ketosis and [losing the body fat](#).

It's rare to hear of anyone going low carb to build muscle. The evidence shows that the low carbohydrate (a la Keto diet) approach to strength training and muscle building is the hard road. It's a lot easier to increase the size and strength of your muscles by [increasing protein and carbs](#).

So should strength athletes ignore the low carbohydrate lifestyle? The answer lies in your

ultimate goals and your level of dedication. Do you want to be the [strongest guy in the gym at any cost](#)? Do you care more about muscle size than muscle performance? If the answer is yes, stick with the old way.

Do you care more about long-term health, anti-ageing, improved cognitive ability, and are not worried about that last 1% of potential? Keto could offer benefits you never even expected.

I'd like to point out that studies (which can always show either side of the story) on strength performance in keto-adapted athletes have shown very promising results. In fact, researchers found that the Ketogenic diet has [no negative effect on the strength-based performance of gymnasts](#) at an elite level.

Recovery From Training

Sleep as a “training component” holds way more importance than most people give it. Simply put, if you're not sleeping properly, you're not training right. When your training sucks, you get bad results. It's a simple equation that busy people and [type-A personalities](#), go-getters, often neglect. Many extreme low carb dieters (like us Ketonians) find their **sleep to be deeper and more regular**. My first month of keto was bliss. I could fall asleep as soon as I looked at my bed. But that soon changed as I adapted and now I'm back to my old sleep patterns. But I will say that overall, sleep has improved by 10-20%. I don't find it as hard to fall asleep. I also don't seem to need enough. I'm less groggy in the morning and once I'm out of bed I never feel the need to return before evening.

Exogenous Ketones

The concept of taking ketones as a ‘supplement’ is popular these days. It reminds me of the pills in the movie Limitless. When the protagonist takes the drug, his vastly improved cognitive abilities help him achieve everything he wants in life. Ketones are not a magic pill but they can help induce Ketosis without the effort of following a strict diet or fasting.

#5. Performance Booster



Athletes who train harder and longer tend to have dramatically higher energy needs both for training and for competitions.

Traditionally, this energy has been gotten from sugar-laden drinks, bars, gels, and



other supplements.

Since ketogenic athletes aren't consuming all this sugar, they have to increase their energy intake some other way.

Creating ketones from the fats on your body or from foods is a slower process, and while it can yield plenty of energy for your day, there's less circulating on a minute-to-minute basis for powerful, explosive, or endurance training ([19](#), [20](#), [21](#)).

Ketones, taken in an external form, seems like the perfect product for people that don't want to (or can't) follow a strict low carb diet.

The logic seems to be that if you are already in ketosis before a workout, you won't have to switch from glucose to ketones.

You also don't have to spend weeks transitioning from sugar (glucose) as a primary fuel source to ketones. Eat carbs until you need to perform, then swallow drugs and enhance your performance! But is an enhanced performance a feature of these products? If you read the literature of the new exogenous ketone products on the market, they might convince you. But I can't find any research to back up the claims that the exogenous form of ketones is better than those produced by the body.

Product advertisements and affiliate sales pages rave about the benefits of ketosis but we already know this. The **benefit is achieving a faster state of ketosis**. Everything else is not unique to exogenous products.

So where's the catch? Well, it has nothing to do with the products themselves, rather the science that consuming more than the 20 grams of carbs recommended for nutritional ketosis will push you out of your optimal range.

You can take the exogenous pills and you might experience improvements in performance but if it's weight loss you're after, forget it.

Are exogenous ketones dangerous? No. [Research](#) in the last few years hasn't found any negative effects of ketone products. However, it's still early days. Caution is advised. Dom D'agostino and [Peter Attia](#) are two of the most important names in keto today so it's worth following their advice on the topic. Any developments in ketone products are sure to appear on the blogs of these gentlemen

gentlemen.

Fasting, Keto, and CrossFit Training

I began intermittent fasting around 2014 after a lifetime of following a 3-5 meal a day plan. I was the worst person to be around if I had skipped breakfast. Training on an empty stomach was against my deepest code. But then I realised I didn't need the food. I was eating out of habit. I felt bloated and slow on a full stomach during early morning training (a consequence of getting older – hitting 40). So I stopped. And I've never looked back.

It took a week to adapt and nothing has changed apart from having less bloated workouts and a clearer head in the morning. Keto dieters often combine fasting with their routine.

It's an ideal way to get deeper into ketosis. **Fasting for 12-15 hours before an intense workout** might seem like a bad idea but once your body adapts to using ketones as energy for your workout, it becomes second nature.

CrossFit and the Ketogenic Diet

I've talked to a lot of CrossFit athletes who claimed to be on 'Keto' but who I discovered on further discussion, were reducing fat and increasing carbs regularly. To the point where I am sure they were almost never in ketosis.

This is common even with the Paleo crowd. As Yoda would say, there is not try. *There is do or do not.* One can either **do** the ketogenic diet or not. There can be no half-way measures, no sneaking in extra carbs or reducing fat intake to suit personal preferences.