

How to Use Ketosis to Achieve Peak Performance

One of the most persistent myths about the keto diet is that it's bad for athletic performance. A lot of sources will tell you that carbohydrates are 100% essential when it comes to things like physical exertion, endurance, and cardiovascular fitness.

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It's no wonder that professional athletes and otherwise physically active people can end up clinging to these beliefs. Some believe that going keto means learning to accept a diminished endurance or energy, while others refuse to even try keto for fear that they'll have to give up their favorite endurance sports.

We get the worry.

But the truth is that we haven't had all of the evidence behind what ketosis can do for performance. Until now. Before we jump to any conclusions, let's take a look at some of the most recent research to come out on ketosis and athletic performance.

Keto has been around for longer than you think

Low-fat, high-carbohydrate (LCHF) diets—including the ketogenic diet—have been around for a lot longer than most people think. In particular, the keto diet was developed in the early twentieth century to treat children with epilepsy. It was supposed to mimic the metabolic effects of fasting, which, since ancient times, had been used as a treatment to improve seizures.

The keto diet was an effective way to relieve symptoms of epilepsy, though it would take decades for researchers to come around to its many other health benefits.

The keto diet was largely abandoned when modern anti-convulsive medication became available in the 1930s.

Decades passed, and in the 1980s there was a resurgence in the popularity of the keto diet as a therapeutic tool to treat epilepsy. By then, nutritionists were curious. Did the keto diet have other health benefits? Studies conducted in the two decades that followed tried to find out.

Does fat benefit performance?

Where athletic performance was concerned, the thinking was that an LCHF diet could “retool” muscles to use up fat stores, reducing reliance on muscle glycogen and thereby enhancing overall [athletic performance](#).

It’s a solid hypothesis, but a lot of the research failed to show clear performance benefits. Some even found that performance during high-intensity exercise was impaired on a LCHF diet.

LCHF diets fell out of popularity. Again.

But over time, the movement started to regain momentum. In 2015, Dr. Louise M. Burke, who serves as the Head of Sports Nutrition at the Australia Institute of Sport, published an article in Sports Medicine questioning whether researchers had jumped the gun when it came to LCHF diets. She wrote, “Recent re-emergence of interest in LCHF diets, couple with anecdotes of improved performance by sportspeople who follow them, has created a need to [re-examine the potential benefits](#) of this eating style.”

Since then, a number of compelling studies have surfaced.

The new keto results were surprising

This study, published in The Journal of the International Society of Sports Nutrition, found that a [keto diet did not have any negative effects on the strength performance](#) of elite artistic gymnasts, and it’s “sudden effect [...] on fat loss may be useful for athletes who compete in sports based on weight loss.”

Another study found that when used for weight loss purposes, [a low-carbohydrate diet did not have a detrimental effect on aerobic exercise performance and muscle strength](#). Compared to a high-carb diet, it boosted weight loss.

A third study compared the effects of two weeks on a high-fat and two weeks on a high-carb diet among trained cyclists. The findings? [Endurance was significantly longer on a high-fat diet](#), suggesting that as little as two weeks is enough to improve resistance to fatigue without compromising performance during high-intensity exercise.

Finally, this article, published in Nutrition & Metabolism, draws a comparison between the ketogenic diet and the traditional Inuit diet, which is low in carbohydrates and high in fats and proteins. For hundreds of years, Inuit have survived on fish, meat, and the few carbs that they could gather.

The researchers suggest that the Inuit have long understood how to maintain performance on an LCHF diet. By limiting protein, ensuring time for dietary adaptation, and optimizing sodium and potassium, [endurance and performance are unlikely to be impaired](#).

But some athletes have been benefiting from keto all along

Of course, these results hardly come as a surprise to people like Dr. Timothy Noakes, a South African scientist and emeritus professor in the Division of Exercise Science and Sports Medicine at the University of Cape Town.

While he may not be a household name here in the United States, he definitely is in South Africa, where he's successfully called into question a number of common assumptions of exercise physiology.

In South Africa, LCHF is simply the "Noakes" diet, and many restaurants offer Noakes-friendly options. Among professional athletes—including LeBron James—he's an icon, and living proof that high-fat doesn't mean low performance.

It's all thanks to his own experience as a marathon and ultra-marathon runner—in total, he's run more than 70 races. After years of carb-loading before each race, he was forced to turn to a low-carb diet when he developed type 2 diabetes, a widespread epidemic in South Africa.

What he found was that going LCHF not only helped him to lose weight, it also allowed him to [burn fat as fuel](#) when he exercised.

Want to use ketosis to achieve peak performance? Here's how

If you're new to keto it's important to give your body some time to adapt to burning fat instead of carbs.

Most—but not all—people experience symptoms of keto flu when they start a low-carb diet. Keto flu isn't serious, though it can cause nausea, upset stomach, mental fogginess, and fatigue. It usually passes with a few days to a week.

Once it's over, you should notice improved energy, decreased appetite, and increased mental focus. That's the time to start to ease back into your regular exercise routine. Exercise is a little bit different when you're in ketosis. Understanding the basic differences can help.

Firstly, consider this: Your body can store about 2,000 calories worth of the carbohydrate glycogen for immediate use. Fat is a more efficient way of storing energy—even someone who's incredibly lean and fit probably has about 40,000 calories of fat.

When using carbs as fuel, you only have so many calories to use before all your stores are depleted. That's when your body turns to fats. When you hear endurance athletes such as marathon runners talking about breaking through the "wall" during a race, it's usually because they've reached the threshold where their body starts to burn fat instead of carbs.

On a keto diet, you're always in the fat-burning stage. If you're exercising for weight loss, you'll notice that a little bit of cardio goes a long way—just 30 minutes is enough. As always, resistance training is the best way to tone muscles, boost strength, and prevent injuries.

Simple, right?