

# Keto & Brain Health

Ketones May Be Your Brain's New Best Friend



By. Lauren Cruz

With the emerging research on the role that quality fat plays in mental and brain health, the rising popularity of low-carb, high-fat diets like keto may be promoting greater productivity and public health in the long run.

When your brain is “on”, you’re more focused, work becomes easier and complex tasks are more enjoyable. The good news: your brain’s ability to perform optimally is directly related to the foods you consume, so you have the ability to improve your mental clarity through diet

As eating patterns like the ketogenic diet continue to grow in popularity, research has been emerging demonstrating the benefits of a high-fat, low-carb diet on brain health.

Following a low-carb, high-fat diet (like keto) is one way to achieve ketosis. This is called nutritional ketosis. You could also utilize catalysts such as exogenous ketones and intermittent fasting to achieve ketosis faster. Once depleted of glucose, your body must make several adjustments to keep all organs and systems running. Your brain is an example.

The brain requires more energy to function than any other organ when you aren’t in ketosis, the brain uses over 400 calories per day in glucose (about 130 grams of carbohydrates), making up a significant portion of your resting metabolic rate (metabolism, as it’s usually referred to).

# Why a Low Carb Diet is a Smart Diet

It might run counter to what you'd think, but a low-carb diet may provide optimal brain function. Ketosis offers several benefits for your brain's health and cognitive function.

Recent studies suggest that contrary to popular belief, your brain doesn't need 130 grams of carbs per day, as long as you eat adequate amounts of protein and fat. With enough fat, your brain is able to use ketones as energy instead of glucose.

Your brain is a fatty organ. It's made up mostly of fat and cholesterol (animal fat), including cell membranes. The brain is home to millions of neurons that use fat to send signals to and from one another. Without fat, those nerves would not work correctly. The biohacking community is aware of this and from this fact, created a new trend: fat fasting, or "fasting" whereby you do consume calories, but they come from fat, usually from sources like MCTs or grass-fed butter in coffee.



This is called fat, butter, keto, or "Bulletproof" coffee and has been adopted by athletes, CEOs, founders, and top performers to give their brains a boost of pure, clean and preferred energy when they need to be their sharpest.



We know that the brain is made up mostly of fat and that it prefers to use ketones (fat) for fuel instead of glucose (carbs).

Here's how that works to promote and protect brain function and health.

## **1. Low-Carb Diets May Prevent Brain Diseases**

Some research suggests that low-carb diets reduce inflammation in the body's tissues, and chronic inflammation creates 95% of all illnesses and disease and prolongs the healing of injuries, according to Harvard Health.

That may be because most carbohydrates are heavily processed foods, which are foreign to the body, and many are difficult for the body to digest, which inflames the tissues. Your risk of developing diseases like diabetes, cancer, and heart disease may be greatly reduced when you switch to a more whole-food nutritional approach focused on quality fats and minimizing carbohydrates, like the ketogenic diet. And believe it or not, research shows that the brain is where many of these diseases start.



For example, insulin resistance (which leads to diabetes) is caused by consuming too much sugar. Insulin resistance is linked to a reduction in the brain chemical brain-derived neurotrophic factor (BDNF) And now, studies are finding that people affected with Alzheimer's disease may benefit from eating low carb diets as well.

## **2. Low-Carb Diets May Boost Your Memory**

Got a big test to study for? Can't remember where you put your car keys? Well, going keto may be beneficial to help you retain and recall information.

Studies suggest that low-carb diets like keto boost memory now and preserve it in old age One study showed that mice fed a low-carb diet retained memories further into old age. Ketosis acts like a natural nootropic — which is a substance used to improve cognitive function (usually a herb, or a drug). With keto, you may be able to achieve the benefits of a nootropic without having to take a pill.

The presence of beta-hydroxybutyrate (BHB), one of the exogenous ketones the body makes when you enter ketosis, improves memory function.

### 3. Ketosis May Improve Gut Health

You may be wondering how gut health relates to brain health or benefits. The two, as it turns out, are heavily linked. Scientists call the link between the gut and brain the gut-brain axis.

Your gut is home to billions of microorganisms that keep your immune system healthy, help you digest food, and keep you energized. And those nerves send signals to and from the brain via the vagus nerve. Diseases like Crohn's disease have been linked to the health of the vagus nerve, as well as several different forms of mental illness.

Think about it this way: a low-carb diet like keto that focuses on quality fats and whole proteins allows all the systems in your body to work together better. Your gut-brain connection keeps you healthy, allows you to absorb nutrients, and fights off diseases.

## 4. Keto May Support Improved Brain Function and Performance

Forget stimulants! If you want to feel your best and be able to think clearly, the keto diet might be the best weapon at your disposal. When your body is in fat-burning mode, it naturally produces more mitochondria. Think back to high school biology, and you might remember that mitochondria are known as the “powerhouse” of a cell. Basically, the more mitochondria, the better your ability to function. (Think of it this way: weightlifters and bodybuilders have way more mitochondria in their muscle cells than the average person. They need them to keep their energy up! When there are more mitochondria present in your brain, your brain can work at its very best, and keto is a natural way to promote this.

## 5. Keto Decreases Brain Fog

In the early days of low-carb dieting, you might experience brain fog. This is a common symptom of the “keto flu”, or the natural adjustments your body must make to burn ketones instead of glucose. As you experience your withdrawal symptoms, simply utilize the right supplementation so you do NOT experience the “Keto-flu.” But if you make it through that initial adjustment, most ketogenic dieters find that brain fog disappears for good. Brain fog can be the result of several things. One common reason you experience brain fog is due to out-of-whack hormones. Think of it this way: there are several neurotransmitters in the brain. When they aren’t balanced, that’s often what causes your brain to feel a little “foggy”. On keto, your body naturally balances out the “chiller” neurotransmitters with more excitatory ones. This helps clear the fog and allow you to complete complex tasks without the dragging feeling many of us know too well. Many of our Keto clients, have said that keto helps them focus better, sleep better (which in turn helps promote mental alertness), and avoid the mid-afternoon crash.



## 6. Low-Carb Diets May Support Improved Mental Health

The benefits of a low carb diet like keto can improve your mental health in a number of ways. For one, keto is a proven method for optimizing overall gut health & weight loss. Body image and mental health are clearly linked to one another. How you look or feel about yourself is going to play a role in how you feel about yourself. For example, women with a positive body image are more likely to have good mental health. And losing weight isn't just good for feeling better about yourself. It's also been shown to reduce symptoms of serious mental illnesses like schizophrenia and bipolar disorder.

But even more than that, a low-carb diet helps your hormones avoid the surges and crashes in insulin, ghrelin, and other hormones that impact your brain and provide those rollercoaster emotions. Research is still being conducted to examine just how powerful a fat-fueled diet can be for maintaining optimal mental health and early results are extremely promising.



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Start with trying nutrition therapy, intermittent fasting, exogenous ketones and some boosted keto coffee to see how it improves your mental clarity and focus.

As always fellow Ketonians, we are here to answer any questions or concerns you may have on your journey. Until you reach metabolic flexibility, Keto on!!

