

# The Keto diet and Exercise

HEALTH  
HUB



The very low carb, high fat, moderate protein ketogenic diet has been linked to a long list of potential health benefits, ranging from improved blood sugar control to decreased hunger levels.

However, its effect on athletic performance remains a subject of controversy. While some claim that keto can boost fat burning and enhance endurance, others note that it could drain energy levels and make muscle growth more challenging.

We will look at some of the ways that the ketogenic diet could affect your workout.

## BENEFITS

Studies show that the ketogenic diet may improve various aspects of athletic performance.

### MAY IMPROVE ENDURANCE

Although the ketogenic diet may not be suitable for high intensity bursts of activity, some studies have found that it may enhance performance for endurance athletes. For example, one study in 39 athletes noted that being in a metabolic state of ketosis improved physical endurance due to the body's ability to use fat as an alternative source of energy.

However, this was observed in the context of providing ketone supplements — not through following the ketogenic diet.

Another study in 20 endurance athletes had similar findings, reporting that following a ketogenic diet for 12 weeks improved performance, body composition, and fat burning during exercise.

What's more, one review reported that increased levels of ketone bodies from supplements may speed muscle recovery and reduce the breakdown of protein following endurance exercise.

On the other hand, some research has found that it could negatively affect performance in endurance athletes by impairing energy utilization and speeding time to exhaustion.

Therefore, more studies are needed to determine whether the ketogenic diet offers any added benefits over other diets for endurance athletes.

### MAY BOOST FAT BURNING

Some research indicates that following a ketogenic diet may help boost fat burning during exercise. In fact, one small study in competitive race walkers showed that the diet increased the body's ability to burn fat while working out, even during a range of different intensities of physical activity.

However, the ketogenic diet ultimately impaired exercise performance in these athletes. Another study in 22 athletes found that switching to a ketogenic diet increased fat burning over a 4-week period.

Of course, it's important to keep in mind that the ketogenic diet comprises mostly fat, which may explain why more fat is burned during exercise.

***Additionally, note that fat contains a significantly higher number of calories per gram than carbs or protein. Therefore, just like any other diet, creating a calorie deficit by adjusting your intake to consume fewer calories than you burn is still necessary if you're looking to lose weight on the ketogenic diet.***

### CAN SPEED MUSCLE RECOVERY

Several studies have found that the ketogenic diet could help speed up post-workout muscle recovery. For instance, one small study reported that the ketogenic diet led to self-perceived improvements in recovery and inflammation after exercise in five athletes. However, it's important to note that they also experienced reductions in other measures of performance, and there was no control group, which could skew results.

Another study in off-road cyclists noted that the ketogenic diet reduced levels of creatine kinase and lactate dehydrogenase — two enzymes used to measure muscle damage.

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## POTENTIAL DRAWBACKS

Although there are many potential benefits of the ketogenic diet for exercise performance, there are a few drawbacks to consider as well.

### MAY DECREASE ENERGY LEVELS

The ketogenic diet involves severely restricting your intake of carbs, which are your body's main source of energy.

Therefore, switching to a ketogenic diet can negatively affect athletic performance and energy levels, especially as your body first begins adapting to using fat for fuel instead of carbs.

One small study evaluated the effects of the ketogenic diet on athletic performance over 10 weeks. At the beginning of the study, athletes experienced decreased energy levels, which gradually increased back to normal over time.

Although they also experienced weight loss and self-perceived improvements in recovery and inflammation, they had difficulty performing high intensity bouts of activity throughout the study.

What's more, other research suggests that increased levels of ketones in the blood could increase feelings of fatigue and decrease the desire to exercise.

### COULD IMPAIR MUSCLE GROWTH

While the ketogenic diet may be fine if you're looking to maintain muscle mass, maximizing muscle growth may be a bit more challenging.

This is partially because muscle growth requires a good amount of protein, which is necessary to promote muscle synthesis and tissue repair.

Although exact macronutrient ratios can vary on the ketogenic diet, some versions of the diet may involve restricting protein intake.

Additionally, ketogenic diets are often low in calories, which can make it more difficult to consume enough protein and build muscle mass.

Consuming a higher number of calories than you expend throughout the day is necessary to maximize muscle growth.

## BEST EXERCISES ON THE KETOGENIC DIET

Carbs are the main source of energy for high intensity activities, such as sprinting, boxing, swimming laps, HIIT, spinning or jumping rope.

Therefore, following a low carb ketogenic diet may not be well suited for these types of activity.

Instead, try incorporating a variety of low intensity, steady state activities into your workout routine to get the most out of being on a ketogenic diet.

Jogging, steady cycling, steady rowing, and doing yoga are just a few examples of physical activities that may be especially beneficial on keto.

While you can also include any other activities that you enjoy as part of your workout routine, you may find some high intensity exercises a bit more difficult on the ketogenic diet.

## THE BOTTOM LINE

Some research suggests that the ketogenic diet might speed muscle recovery, boost fat burning, and enhance endurance.

On the other hand, it could impair muscle growth and reduce energy levels, especially during high intensity bouts of physical activity.

Sticking to low intensity, steady state activities during your workout is a simple strategy that can help maximize the many potential benefits of the ketogenic diet.