

What is the Ketogenic Diet?

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It's all the rage. The internet is filled with stories of how everyone from movie stars to ordinary people have shed stubborn pounds with the ketogenic diet. Some suggest that this eating pattern also may be helpful for managing diabetes and warding off Alzheimer's disease. So, is it a miracle diet or just the latest fad?

How the Keto Diet Works

The ketogenic diet is a high fat, moderate protein, low carbohydrate eating pattern, which differs from general, healthful eating recommendations. Many nutrient-rich foods are sources of carbohydrates, including fruits, vegetables, whole grains, milk and yogurt. On a keto diet, carbs from all sources are severely restricted. With the goal of keeping carbs below 50 grams per day, keto dieters often consume no breads, grains or cereals. And, even fruits and vegetables are limited because they, too, contain carbs. For most people, the keto diet requires making big shifts in how they usually eat.

Why does the Keto diet restrict carbs?

Carbs are the main source of energy for our body. Without enough carbs for energy, the body breaks down fat into ketones. The ketones then become the primary source of fuel for the body. Ketones provide energy for the heart, kidneys and other muscles. The body also uses ketones as an alternative energy source for the brain. Hence, the name for this eating pattern.

For our bodies, a ketogenic diet is actually a partial fast. During a total fast or starvation state, the body has no source of energy. Thus, it breaks down lean muscle mass for fuel. With the keto diet, the ketones provide an alternative source of energy. Unlike a full fast, the keto diet helps to maintain lean muscle mass.

Is the Keto Diet Safe?

This eating pattern is not recommended for individuals with:

- Pancreatic disease
- Liver conditions
- Thyroid problems
- Eating disorders or a history of eating disorders
- Gallbladder disease or those who have had their gallbladders removed

Plus, there are both short-term and long-term health risks for all people associated with the keto diet. Short term health risks include flu-like symptoms. For example, upset stomach, headache, fatigue and dizzy spells. This is called the “keto flu.” Some people also report trouble sleeping. Cutting back on high-fiber vegetables, fruits and whole grains also can increase risk for constipation. Often keto dieters must take a fiber supplement to help stay regular, but this should be discussed with a health care provider.

Long term health risks of the keto diet include kidney stones, liver disease and deficiencies of vitamins and minerals. To limit carbs, many nutrient-rich vegetables and fruits are cut out. Thus, intakes of vitamin A, C, K and folate usually are low.

The high fat nature of the keto diet is very controversial. A considerable body of research has shown that diets high in saturated fat may increase the risk for heart disease and other chronic health problems. The risk that keto dieters might be taking with regards to their long-term cardiovascular health has not been fully studied.

What the Science Tell Us About the Keto Diet

The keto diet has been used to help manage epilepsy, a disorder characterized by seizures, for more than 100 years. More recent studies are evaluating the keto diet as an alternative dietary treatment for obesity and diabetes. Research findings on the benefits of the keto diet for these health conditions are extremely limited. Studies on effectiveness of the keto diet were conducted with small groups of people. And, most of the research about Alzheimer’s disease relies on research done on lab animals. To fully assess the safety of this eating pattern, more research is needed. Plus, studies must be done on the long-term health effects of the keto diet.

Body mass index and individual metabolic rates impact how quickly different individuals produce ketones. This means that on the keto diet, some people lose weight more slowly than others — even if they are following the same exact keto diet plan. For this group of people, the keto diet can

be frustrating and may impact their motivation for making healthy dietary changes. Plus, many people are not able to stick with the keto diet and gain back the weight after returning to their previous pattern of eating.

The Bottom Line

The ketogenic diet is quite restrictive. Research supports this eating pattern for epilepsy when managed along with a health care team, since its treatment can be very complex. However, with regards to the keto diet as a tool for weight loss and other health benefits, the jury is still out.

For a personalized weight management plan that meets your individual needs, consult a registered dietitian nutritionist. An RDN can create a personalized weight loss program based on your unique health and nutrition needs and goals. To find a dietitian in your area, search the Academy's [Find an Expert](#) database.

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