

# KETOGENIC DIET

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## #KETO

Lets talk about pros and cons of this new diet craze.



## NEW YEARS RESOLUTIONS & THE KETO DEIT

The New Year is just around the corner and people are thinking about their new year resolution. Before choosing a new resolution, I think it is worth examining your health goals. Where do you want to see yourself in 6 months from now, 5 years, and when you are 80? Your resolution should help to support your short and long-term health goals. 2018 has been a popular year for the ketogenic diet, with over 9 million #keto and 3 million #ketogenic on Instagram. Since this is a popular time of year for people to start new diets, it is worth examining what is the keto diet? Is it healthy? And why is it so popular?

When talking about the ketogenic diet think high fat, low carb. The standard ketogenic diet includes 65 - 75% calories from fat, 20 - 30% from protein, and 5 - 6% from carbohydrate. For comparison, the Academy of Nutrition and Dietetics recommends 45 - 65% of calories from carbohydrates, 20 - 30% from fat, and 10 - 20% from protein. Keto diets are therefore comprised mostly of foods high in fat and protein such as red meat, chicken, fatty fish, poultry, eggs, butter, cheese, oil, yogurts, nuts, seeds, avocados, etc. A small amount of low-carbohydrate foods is acceptable such as non-starchy vegetables (leafy vegetables, broccoli, carrots, peppers, onion, radishes, etc.) and selective fruit (berries, cherries, lemons, and limes).

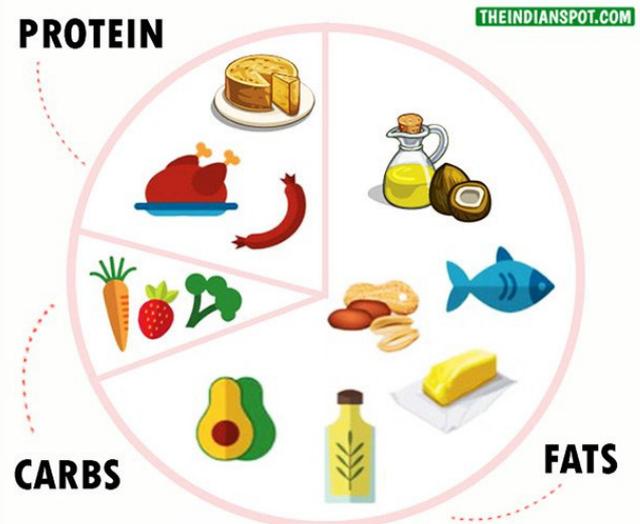
The goal of the ketogenic diet is to induce a state of ketosis, a metabolic shift of energy utilization (1). Our body can create energy several ways, but carbohydrates are the preferred source of fuel. When we deprive our body of carbohydrates and ramp up the fat intake, the metabolism shifts gears and is forced to use fat for fuel. Fat is repackaged in the body as ketobodies that are then used by various tissues, including the brain, for energy. Ketosis is achieved when blood ketone levels reach greater than 0.5 mmol/L (2).

Although this diet has only recently made it into the news, the ketogenic diet has been around since the 1920's. This diet was designed as a medical nutrition therapy approach to treat children with drug-resistant epilepsy (1). Over the years the diet has been repackaged and sold to people as a way to lose weight. Similar to the keto diet, popular trends such as Atkins, South beach, Paleo, and Dukan diet also touted the low-carb approach to lose weight.

So, what is it about the keto diet that has celebrities like Kourtney Kardashian and Vinny Guadagnino raving about it on social media? The diet has been successful in helping people with rapid weight loss (3). Some possible reasons people are able to shed weight on this diet include satiety from protein and fat intake, changes in appetite control hormones, reduced body fat storage, and an increase in metabolic rate (2). A 2014 systematic review and meta-analysis concluded that participants on the ketogenic diet experienced a reduced appetite while they were losing weight, which typically would increase one's desire to eat (4). The keto diet has also been linked to improved blood sugar and increase insulin sensitivity in people with type 2 diabetes,

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## WHAT TO EAT



but with lack of long-term studies we are unaware of the sustainability of these effects (5).

Following a high-fat diet can be difficult. Once starting the keto diet, it is likely for people to experience the “keto-flu”. Symptoms can include lethargy, depressed mood, irritability, constipation, diarrhea, headache and muscle cramps. You can expect to feel these symptoms for the first 4-10 days of starting the diet as the body's metabolism adapts. Even after these symptoms subside people may find it challenging to maintain this diet. The extensive meal planning needed to maintain the diet requires time, planning, and organization. Because it is so restrictive, people may find it hard to dine out and this could lead to possible social isolation (2).

The keto diet poses some potential negative effects, including an increased risk for kidney stones, osteoporosis, gout, and kidney damage (5). Since the diet restricts intake of foods such as legumes,

***"The diet was designed as a medical nutrition therapy approach to treat children with drug-resistant epilepsy."***

grains, fruit, and vegetables, followers are at an increased risk of nutrient deficiencies. These food restrictions also decrease consumption on phytonutrients and fiber which may lead to constipation and alteration to the gut biome. People considering a ketogenic diet should work with a registered dietitian in order to monitor labs and possibly alleviate side effects.

This diet is not recommended to people with type 1 diabetes or have any issues with their kidneys, pancreas, or liver (5). If you are pregnant or nursing do not start this diet. Additionally, this diet may not be appropriate for those with a history of eating disorders.

At this stage, the research on ketogenic diet is mixed. There is currently a lack of research on the long-term effects of maintaining this diet. Before embarking on any diet, I encourage you to think back on your health goals and see if fits within those parameters. If your new year resolution includes making healthful diet changes, a Registered Dietitian can help you to make smart and informed decisions.

## References

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