



## Fad or fabulous?

# THE KETO DIET



The ketogenic diet — also known as the keto diet — refers to a **very low-carbohydrate, high-fat eating pattern** that changes the way food energy is used in our body.

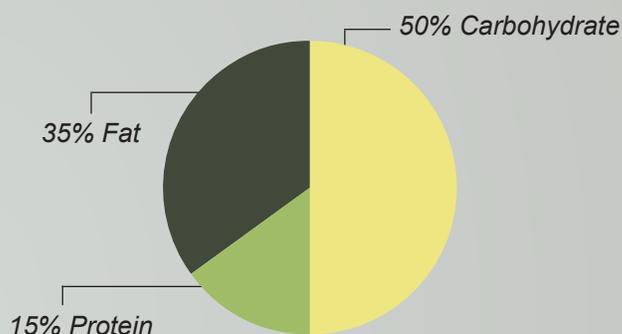
Normally, the carbohydrates that we eat (grains, vegetables, fruits, sugar) are converted into glucose, which fuels our brain, muscles and overall metabolism. But when carbohydrate is not consistently available, as in a very low-carbohydrate diet, we use fat as the metabolic fuel.

To do this, our stored fat is broken down and converted into ketones. The body then enters ketosis, a metabolic state that uses fat as its primary energy source.

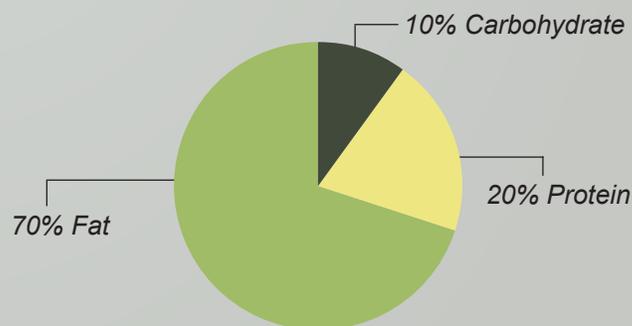
The keto diet was introduced in the 1920s as a treatment for epilepsy and seizure disorders. It is still recognized throughout the world for this purpose. Recently, the keto diet has also become a popular approach to weight loss and improved metabolic health. **Is this a sensible approach?** Maybe!

### What does the keto diet look like?

The average American diet consists of approximately 50 percent carbohydrate calories, 15 percent protein calories and 35 percent fat calories. For a 2,000-calorie diet, this means about 250 grams carbohydrate, 75 grams protein and 78 grams fat.



In the classic keto diet, this balance shifts to approximately 5 to 10 percent of calories from carbohydrate (25 to 50 grams per 2,000 calories, — equivalent to a banana or an apple), 15 to 20 percent from protein (75 to 100 grams per 2,000 calories) and 70 to 75 percent from fat (155 to 167 grams per 2,000 calories).



There are several popular versions of the keto diet, but most of the research has focused on the classic ketogenic diet.

## In practice, the keto diet:

- Is **rich** in meat, fatty fish, eggs, nuts and seeds, butter and cream, cheese, oils, avocados, greens, herbs and spices.
- Includes **little, if any**, fruit, grains, breads, potatoes, beans or legumes, sweets, sweet beverages or alcohol.



### A basic one-day, 2,000-calorie keto meal plan:

<b>Breakfast</b>	Two eggs scrambled in butter with a cup of spinach. Three slices of bacon. Coffee with 2 tablespoons of heavy cream.
<b>Lunch</b>	Half an avocado stuffed with one-half cup feta. A lettuce wrap with 4 ounces of chicken breast (with skin) with 2 tablespoons of mayonnaise.
<b>Snack</b>	Twenty-three almonds. One individual portion of string cheese.
<b>Dinner</b>	Four ounces of baked halibut with 2 tablespoons of garlic butter. Caesar salad (1 cup romaine with 2 tablespoons dressing and no croutons). Five strawberries.



## Short-term results

### Weight loss

The keto diet results in rapid weight loss, at least initially. The diet prompts your body to burn fat, which is a productive approach to weight loss. The diet also suppresses your appetite, so you might be eating fewer calories without feeling hungry or experiencing food cravings.

### Metabolic health

In the short term, the keto diet appears to improve blood sugar control, insulin resistance, high blood pressure, and cholesterol and triglyceride levels.

### Quality of life

The process of reaching and maintaining ketosis can be challenging. Food choices for a very low-carbohydrate diet are very limited. Side effects of a very low-carbohydrate diet can be uncomfortable:

- Physical and mental fatigue.
- Headaches and irritability.
- Constipation, nausea and vomiting.
- Difficulties sleeping.
- Bad breath and fruity smelling urine.

Together, these symptoms are referred to as the “keto flu.” They might last a few days or a few weeks.



## Long-term results

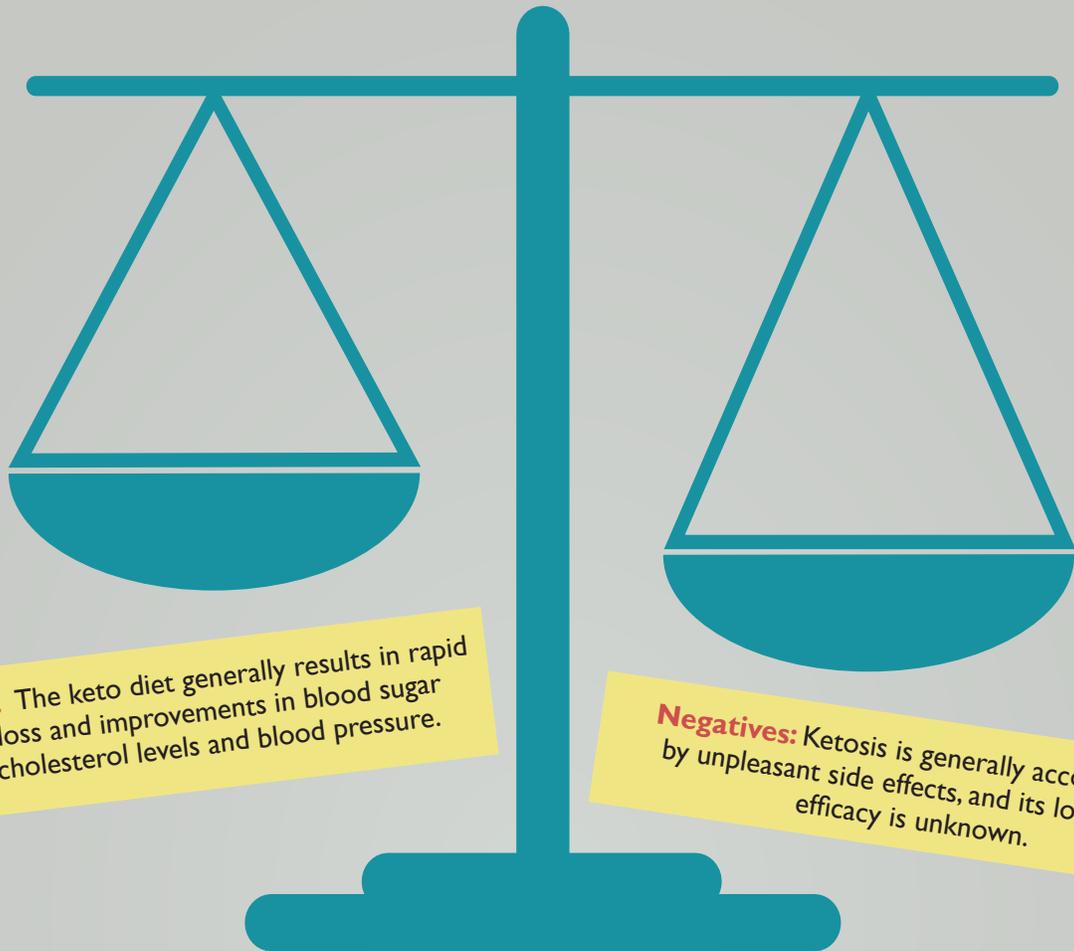
There is no real evidence to support the long-term effectiveness of the keto diet for weight management or metabolic health. Also, there is no research on the long-term safety of this diet as a weight- or health-management strategy.

### Bottom line

The keto diet could be a **short-term** option for relatively healthy people who need to kick-start their efforts at weight or health management and who can tolerate the side-effects. However, there are still many unknowns about the risks and the benefits of the keto diet, and it is not recommended as a long-term lifestyle choice.

On the other hand, even small changes — eating breakfast, snacking on yogurt, adding colorful vegetables to each meal, walking a few extra minutes each day or taking stretch breaks — can make a difference over the long term and be **much more enjoyable!**





**Positives:** The keto diet generally results in rapid weight loss and improvements in blood sugar levels, cholesterol levels and blood pressure.

**Negatives:** Ketosis is generally accompanied by unpleasant side effects, and its long-term efficacy is unknown.



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