

Ketogenic vs Paleo Diet: What's the Difference?



by Stefanie Schwartz, MS, RD, CDN and Rich Strongwater, M.D.

The two eating plans, Ketogenic and Paleo, that have been in the news, outlining pros and cons, share some similarities but developed for different purposes. The keto diet focuses on 3 macronutrients: fat, carbs, and protein – so in a sense – science is at its core. The Paleo diet, first described in 1975 by Walter Voegtlin, a gastroenterologist, is considered a low carbohydrate diet, and is more about food choices and a philosophy – that if modern men/women eat like our Cave ancestors – we'll be healthier.

In a nutshell:

The **Paleo diet** (AKA Caveman diet or the Paleolithic diet) encourages consuming foods that were available during the Paleolithic era: primarily meat and protein. Proponents of the diet argue that the Paleo diet is suited to the original design of our bodies.

The diet advocates limiting our foods to those that were readily available during the evolution of Paleolithic humans [2.5-million and 10,000-years ago]. Food choices consist primarily of fruit,

vegetables, nuts, roots, meat, fish, and oils derived from fruits (olive, coconut, palm). The diet restricts consumption of refined carbohydrates and fats, processed sugar, grains, and dairy. It also stipulates no processed foods or salt, excludes cereal grains, legumes (except green beans and peas), dairy, potatoes, refined carbohydrates, and refined fats/oils, and discourages meats other than that which is grass-fed.

To date, randomized clinical trials comparing the Paleo diet with others are lacking, but some evidence suggests that the Paleo diet:

- Has similar effects on weight loss as the Mediterranean diet, and the benefits of the Mediterranean diet
- Improved insulin sensitivity
- Reduced circulating triglycerides in overweight, postmenopausal women

The **ketogenic diet** (AKA keto diet), on the other hand, was developed as a tool to fight diseases like epilepsy – (and other epileptic disorders) not for weight loss. Keto diets have been used since the 1920s for epilepsy to control seizures. In recent years, studies have shown a keto diet to be effective for controlling hunger and appetite, and to lower triglyceride and blood pressure levels. It's been found that following a keto diet, insulin levels drop, allowing fat to be burned for energy, resulting in weight loss.

According to a 2004 study in *Experimental & Clinical Cardiology*, the keto diet can help increase HDL and lower LDL cholesterol and glucose. Today research is underway looking at the effect the keto diet has on cancer and Alzheimer's Disease.

The keto diet is a very low-carbohydrate, high-fat diet that averages 75% fat, 20% protein, and 5% carbohydrate (generally, less than 20 g/day of carbohydrates). The American Academy of Family Physicians defines low-carbohydrate diets as diets that limit carbohydrate intake to 20-60 g/day. One gram of carbohydrate provides 4 calories.

A keto diet puts the body into ketosis, a state where the body burns fat instead of glucose.

Ketones, produced in the liver from the metabolism of fat, are used as an alternative fuel for the www.FibonacciMD.com

body and brain when blood glucose is in short supply. It takes about a week for the body to adapt to the state of ketosis. Afterwards, people say they have improved mental focus, less severe swings in blood glucose, and, in some cases, greater energy for endurance activity.

Commonalities between the 2 regimens:

- whole foods, minimal processing
- both eliminate grains and legumes
- both eliminate added sugar (but Paleo allows for honey and maple syrup)
- both support unrefined healthy fats (no trans fat)
- both allow plant-based refined oils (polyunsaturated and mono-unsaturated fat)

Differences between the 2 regimens:

- The **Paleo** diet is considered a low-carb diet; however, there is less emphasis on the carb and fat percentages as long as you avoid the non-Paleo foods
- The paleo diet allows carbs as long as they come from “whole foods” (fruits, vegetables, unrefined sweeteners like honey, maple syrup, Jerusalem artichoke syrup)
- The paleo diet restricts all soy products (no legumes) and most dairy foods
- The paleo diet generally permits grass-fed butter

- The **keto diet** encourages whole foods, but more importantly specifies fat, protein, and carb percentages. The keto diet restricts carbohydrate intake regardless of source
- The keto diet permits dairy, especially high fat dairy like high-fat cream and high-fat yogurt, but ice cream and milk are not permitted because of their higher carb content
- Soy milk is also not allowed because of its higher carb content

Final Note:

Both diets have health benefits for specific medical conditions beyond weight loss including diabetes, coronary heart disease, and hypertension. And, like any diet, if adhered to for a short period of time – neither appears to be dangerous unless you’re pregnant, breastfeeding or on diabetic medication. The healthcare provider should carefully consider any possible contraindications before advising a particular diet regimen.

References

Jabr F. How to really eat like a hunter gatherer: why the paleo diet is half-baked. Scientific American Web site. <https://www.scientificamerican.com/article/why-paleo-diet-half-baked-how-hunter-gatherer-really-eat/>. June 3, 2013, Accessed August 22, 2017.

Thompson RC, Allan AH, Lombardi GP, et al. Atherosclerosis across 4000 years of human history: The Horus Study of four ancient populations. *Lancet*. 2013;81:1211-1222.

Tarantino G, Citro V, Finelli C. Hype or reality: Should patients with metabolic syndrome related NAFLD be on hunter gatherer (paleo) diet to decrease morbidity? *J Gastrointest Liver Dis*. 2015; 24:359-368.

Mellberg C, Sandberg S, Ryberg M, et al. Long-term effects of Paleolithic-type diet in obese postmenopausal women: a 2-year randomized trial. *Eur J Clin Nutr*. 2014;68:350-357.

Samaha FF, Iqbal N, Seshadri P, et al. A low carbohydrate as compared with a low fat diet in severe obesity. *N Engl J Med*. 2003;348:2074-2081.

Bueno N, Vieira de Melo I, Lima de Oliveira S, Ataide T. Very-low-carbohydrate ketogenic diet v. low-fat diet for long-term weight loss: a meta-analysis of randomized controlled trials. *Br J Nutr*. 2013;110:1178-1187.

Hill, A. What's the difference between Paleo and keto diets? Healthline. June 13, 2018. <https://www.healthline.com/nutrition/paleo-vs-keto>

Dashti H, Mathew T, Hussein T. Long-term effects of a ketogenic diet in obese patients. *Exp Clin Cardiol*. 2004 Fall; 9(3): 200-205.